

Scholar's Advanced Technological System - Chapter 628 - Nature Weekly Interview

Chapter 628: Nature Weekly Interview

All good things had to come to an end. After all, Fefferman was the head of the mathematics department, he still had a lot of work to do in Princeton.

Lu Zhou sent Fefferman to the airport. As he watched Fefferman carry his suitcase toward the security checkpoint, Lu Zhou said, "Have a safe flight."

"I will." Fefferman waved goodbye and said, "If you have any new discoveries, make sure to contact me."

Lu Zhou smiled and nodded.

"I will."

Over the next few days, Lu Zhou returned to his Zhongshan International mansion, the buildings at the Institute for Advanced Study, and his office at Jin Ling University. His number theory classes and computational materials science classes had finished for this semester, so he didn't have a lot of university work to do.

Lu Zhou either worked on his own research or help his students finish their academic tasks.

Honestly, when he saw his students growing and thriving, he felt a sense of accomplishment.

Mathematics department office.

Lu Zhou called Han Mengqi to his desk.

"I have some good news for you."

Han Mengqi looked at Lu Zhou's mysterious expression and felt suspicious.

"What good news?"

“This morning, I received an email from the ACS-Nano editorial department. Your thesis has passed review!” Lu Zhou smile and said, “Congratulations, you’re a top publishing scholar now.”

Han Mengqi was stunned. She suddenly had a joyful smile on her face.

“Really?”

“Of course.” Lu Zhou smiled and said, “This is the result of your hard work for the past six months. What do you think? Are you excited?”

Han Mengqi nodded her head excitedly.

“Yeah, super excited!”

The impact factor of ACS-Nano was around 14, and it was one of the top journals in materials science. Successfully submitting a thesis to this journal wasn’t an easy task.

Han Mengqi’s thesis reviewer was the deputy editor-in-chief, Ali Javey, a big name in the materials science world. Lu Zhou once exchanged emails with him at an academic conference.

Even though the reason why the thesis was accepted so quickly might have something to do with Lu Zhou’s name on the thesis as a corresponding author, but the quality of the thesis itself was unquestionable.

After all, reputation was part of it, but the academic community mostly cared about quality content.

When Lu Zhou saw how excited Han Mengqi was, he sincerely felt happy for her.

Roughly speaking, all of his students were quite outstanding.

In addition to Han Mengqi’s thesis, there were two PhD theses that were also published, one in number theory and one in computational materials science. They were published in SIAM Review, which had an impact factor of four, and Nano Today, which had an impact factor of 17.

Since Wu Shuimu was able to publish in a journal that had an impact factor of over 10, he was ecstatic.

Even though this thesis was part of a research project of the Institute for Advanced Study and that some people had some doubts about his first author title, he did actually put a lot of work into this project.

As for He Changwen's thesis, other than some guidance from Lu Zhou, he basically completed it on his own.

Mathematics journals generally had lower impact factors. The real level of influence wasn't reflected properly by the impact factors. Even though "SIAM Review" wasn't considered to be one of the top four mathematics journals, it was still a top-tier journal according to the Chinese Academy of Sciences.

Another thesis was from Feng Jin, and his journal's impact factor was around 1-2.

His thesis was still in peer review, but the results should come out by July.

As for the other three mathematics and one materials science master's students that weren't able to complete their thesis, Lu Zhou didn't blame them.

After all, different people had different abilities. Not to mention, Jin Ling University students weren't comparable to Princeton students. He never expected all of his students to be outstanding. He only expected them to be able to complete his tasks step by step.

Lu Zhou went to the cafeteria at noon to eat some barbecue meat on rice. After he returned to his office, he saw it was about time for his interview. He changed into a handsome formal attire and sat on his office sofa. He was then interviewed by the British Nature Weekly.

Recently, he had been receiving a lot of interview invitations; some were from domestic media outlets, and others were international.

Lu Zhou knew that the public was curious about his research work. Therefore, he selectively agreed to conduct interviews for a few appropriate media outlets.

For example, Nature Weekly was one of them.

Nature Weekly was much more academic-focused than media outlets like the Daily Mail. It had a serious attitude toward covering academic figures and scientific breakthroughs.

After the reporter and the photographer arrived at the mathematics department, Lin Yuxiang enthusiastically invited the two of them to sit down. She then poured two cups of coffee for them.

The camera was turned on and the microphone was set in place. Belinda sat professionally and smiled.

She then opened her mouth and said, "Nice to meet you, Mr. Lu Zhou."

"Nice to meet you."

Belinda smiled and said, "Do you still remember when we met five years ago at the CERN headquarters in Switzerland? Back then, you participated in the European Nuclear research conference as an intern because of the 750 GeV characteristic peak discovery, and I interviewed you back then."

Lu Zhou smiled and said, "No wonder you look familiar."

Belinda smiled and said, "I still remember when Professor Grayer at CERN boasted about your physics abilities. Can I ask why did you choose the path of mathematics instead?"

"At first, it was because my major was mathematics." Lu Zhou thought for a bit and said, "But the more in-depth research I did, the more interested I became. In the end, I decided to dive into the field."

Belinda was surprised. "Oh really?"

Lu Zhou smiled and nodded. "Yeah."

Belinda looked at her notes and said, "The general solution for the Yang-Mills equations has been found. According to my understanding, there is still a crucial problem that hasn't been solved, which is the Yang-Mills existence and mass gap. A lot of physicists have said that this problem is the holy grail of modern physics... What I want to ask is, why do they say this? What is so difficult about this problem?"

This question wasn't easy to answer.

After all, most people didn't even know what the Yang-Mills existence and mass gap, much less understand why it was so difficult.

Lu Zhou thought for a bit.

He then said, "Figuring out the Yang-Mills existence and mass gap requires the exploration of the hadrons under the strong interaction described by the special unitary group of gauge theory. As for the unknown hadron world, the minimum frequency required for a high energy beam to detect it is the minimum mass times the square of the speed of light, divided by the Planck constant."

Lu Zhou paused for a second before he continued, "Thus, we can calculate the minimum frequency of the hadron world experiment is 10^{24} Hz. The high degree of coupling interactions indicates that the world of hadrons is very different from the world that we are familiar with. Understanding a world that one is not familiar with is a meaningful and challenging thing in and of itself. It can change the face of civilization and can help us discover livable planets.

"Simply put, we will find out how massless particles are able to form particles with mass, and how the four fundamental forces can unify together."

Belinda looked surprised.

"So your goal is to unify the four basic forces?"

Lu Zhou smiled and said, "This isn't just my goal, this is the entire physics world's goal."

Belinda immediately asked, "Then how do you think we can achieve this goal?"

Lu Zhou thought for a bit and said, "Before unifying gravity with the other three fundamental forces, I think it is important to achieve unity between the three fundamental forces first."

"The Yang-Mills equations problem is the first step to the Grand Unified Theory. Establishing the relationship between the strong interaction and electromagnetic force will become an extremely important piece of the puzzle, and it could be the last piece we need to unify the three basic forces... After all, Weinberg's theory of weak electricity unification has already unified the electromagnetic force and weak interaction by adding a Higgs field."

Belinda had a thoughtful expression on her face as she continued, "So what you're saying is, the electromagnetic force will bond the weak interaction and strong interaction together?"

“Yes.” Lu Zhou leaned back against the sofa and jokingly said, “Then they will all go find the anti-social gravitational force... But I’m guessing that won’t happen in my lifetime.”

Chapter 629: Seems More Academic

The interview came to an end.

Belinda put away the audio recording device and smiled.

“Oh yeah, can we take a photo of you?”

Lu Zhou: “Photo?”

Belinda nodded and said, “Yeah, we plan on making you the cover person of this week’s Nature Weekly issue.”

Cover person?

Lu Zhou awkwardly smiled.

This... I’m embarrassed.

Speaking of which, he didn’t even remember how many magazine covers he had been on.

“No problem... I’ll send my photo to your email?”

“No need for that, we have a photographer here, so we’ll just take a photo right now.” Belinda nodded at her colleague and smiled toward Lu Zhou. She said, “Most people are curious about what your office looks like. Is it fine if we take a photo here?”

“Sure...” Lu Zhou looked around his office. He then looked down at his t-shirt and said, “Can I change clothes?”

Belinda smiled and said, “Just wear the same thing, it seems more academic.”

Lu Zhou: “...”

It took an hour just to take one photo, and it was more tiring than the interview itself.

When the Nature Weekly photographer finally made an OK gesture, it was already dusk.

All in all, the photo was pretty good. Even though it didn't totally reflect Lu Zhou's handsomeness, it was still a seven or eight out of ten.

After the interviewer left, Lu Zhou went to the cafeteria.

Like usual, he ordered a bowl of barbecue meat on rice and sat down at a quiet, secluded area. He was about to eat his food when he heard Yan Yan's footsteps. She wore a white coat today. She walked toward him and placed her food tray across from him.

Lu Zhou was a little startled. He began to eat while talking to her.

"You eat at the school cafeteria as well?"

"Of course, where else am I supposed to eat? I'm living in one of the school apartments right now, and I don't have a kitchen." Yan Yan took a pair of disposable chopsticks and gently blew her noodle soup. She lifted the bowl and took a small sip, which left her with a satisfied look on her face.

She then put down the bowl. When she saw Lu Zhou's bowl of meat and rice, she couldn't help but ask, "Are you not sick of eating meat and rice all day?"

"Sick?" Lu Zhou stopped moving his chopsticks and smiled. "Why would I? There's spicy-flavored meat, curry-flavored, tomato-flavored... I think there are more than seven flavors? If I wanted to, I can even put Lao Gan Ma sauce on it."

Yan Yan was speechless. She couldn't think of a counterargument.

After a while, she sighed.

"You should still try to eat healthier and more nutritious food. Eating this kind of fast food isn't good for your health, you'll gain weight."

"Oh, I don't care." Lu Zhou smiled and said, "I'm the type of person that can't gain weight no matter how much I eat. I'll be happy to gain weight."

Yan Yan: "..."

*F*ck sake!*

I'm jealous!

After Lu Zhou finished his meal, he walked around the campus while thinking about the Yang-Mills existence and mass gap problem. A lot of students recognized him and greeted him, to which he smiled and greeted them back.

Lu Zhou walked from the lecture buildings to the observatory, then back to the library. He saw it was getting late, so he called Wang Peng and was about to ask him for a ride back home.

However, when he opened his contact list, he saw an incoming call from Chen Yushan.

Lu Zhou picked up the call and put his phone next to his ear.

"Hello?"

A pleasant voice came from the other end of the phone.

"Little brother, Little brother, did you eat yet?"

Lu Zhou was too lazy to complain about his nickname.

"Yeah, I ate."

"Oh? You already ate..." The other end of the phone sounded a little disappointed. However, she quickly said, "Do you want to get a cup of coffee then?"

Lu Zhou was a little full, so he didn't want to drink coffee.

However, judging by her tone of voice, she was probably near campus.

Lu Zhou hesitated for a bit before asking, "Which cafe?"

As expected, she immediately replied in a cheerful voice, "The place outside the campus entrance! Come over, I'm already waiting for you here!"

...

Cafe outside the school entrance.

When the cafe door was opened, Chen Yushan, who was sitting near a window, heard a bell sound. She looked up and saw Lu Zhou walking into the cafe.

She waved her hand happily as she called out, "Over here!"

Lu Zhou sat down across from her. He warmed his hand by cupping the hot cup of mocha and looked at Chen Yushan.

Her delicate face was lightly coated with makeup, and she had a white off-the-shoulder top and a light red skirt on. If it weren't for her professional aura, one could easily mistake her for one of the university students.

These two had been friends for a long time, so Chen Yushan didn't waste any time on small talk. She immediately took out a contract from her bag and placed it on the table. She looked at Lu Zhou and smiled.

"Look at this."

Lu Zhou picked up the contract and briefly glanced at it.

"What is this?"

Chen Yushan smiled and explained, "Zhongshan New Materials' letter of intent."

"Zhongshan New Materials?" This name sounded familiar. Lu Zhou flipped through the letter of intent and said, "Patent license for lithium-sulfur battery anode material and cathode materials, and 15 million yuan, in exchange for 15% of shares. Both parties will cooperate in technology research... Is there any point in buying this company?"

He didn't really ask questions about his investments, but when it came to major decisions, Chen Yushan would take his input.

Chen Yushan's soft lips gently bit on her iced americano straw. She looked at Lu Zhou and smiled.

"The state is trying to standardize clean energy vehicle batteries, right? Several domestic automotive energy giants are participating in this project. Apparently, they're trying to separate the battery component from the

automobile so that they can develop standardized battery specifications, which will be produced by battery manufacturers. Rumor is, when the time comes, more than 40 billion yuan of subsidies will enter the battery production market. Right now, it is the best time to invest in battery production.

“Since we don’t have any battery production experience, our best way of eating a piece of this pie is to jump on the bandwagon.”

Lu Zhou knew about this battery standardization news since he was partly responsible for this proposal.

After automobile batteries were standardized, it would be equivalent to buying cars without batteries. They wouldn’t have to wait to charge at gas stations anymore. They could just replace the battery and continue on their journey. As for a series of concerns, such as battery degradation or damage, this can all be included in the cost of the battery replacement. Car owners also wouldn’t be allowed to dismantle their temporary batteries.

Considering the fact that in three years, the penetration of fusion electric energy would be more than 80%, the cost of electricity would be extremely cheap by then. Even including all of the additional costs, the average cost per kilometer for electric vehicles would be much lower than traditional gas vehicles.

But I don’t think the state has approved this policy yet, right?

Lu Zhou hadn’t heard anything about it.

He flipped through the letter of intent and asked, “How did you hear about this?”

“I obviously have information sources. Of course, even without my sources, there are little clues scattered all over the place. For example, BYD Company is separating its battery production business, which will become a separate subsidiary.” Chen Yushan sighed and said, “But they have their own friends, and they don’t want to play with us. Otherwise, it would be better if we could cooperate with a giant company instead.”

Even though Lu Zhou didn’t really understand what she was saying, he noticed a few key points from the contract.

“What do you think about this proposal?”

Chen Yushan said in a serious manner, “I think we should consider this. Zhongshan New Materials has already become the largest anode and cathode material manufacturer in the whole province of Jiangsu. If they plan on entering the battery industry, they’ll already have a good foundation and government support. Also, Jiangsu is the first province to operate a fusion power station. I’m guessing that the battery standardization will also be implemented in Jiangsu first.”

Lu Zhou thought for a bit and nodded.

“Okay, we’ll go with your plan.”

Chapter 630: Level Five Biochemistry!

Lu Zhou didn’t want to waste a lot of time on business. After all, his energy was limited.

Thankfully, Chen Yushan was here to help him, so he didn’t have to worry too much.

To be honest, Lu Zhou felt like asking her to come here and become CEO was undervaluing her.

After all, she was a top student from the Wharton School of the University of Pennsylvania. Besides, her father was a high ranking government official in Beijing. With her background, she could easily become a CEO of a top 100 company.

Therefore, Lu Zhou agreed to most of her proposals regarding the expansion of Star Sky Technology.

After all, like she said, it would be foolish to let so much money just sit in his bank account. Money had to be invested for it to create more value. Letting it sit in a bank account would only depreciate the money.

Her eloquent speech reminded Lu Zhou of his little sister, Xiao Tong, who was studying finance in the UK.

Hopefully, when Xiao Tong graduates, she can also become as excellent as her...

The next morning.

Like usual, Lu Zhou walked into his office.

When he opened the door, he heard an excited voice.

“Professor!”

Feng Jin stood up from his desk while blushing. Lu Zhou curiously asked, “What’s up?”

“I...” Feng Jin’s cheeks were bright red. It was almost like he was on drugs as he excitedly said, “I passed!”

Lu Zhou and everyone else in the office were a little shocked by his loud voice.

The three mathematics master’s students looked jealous, but everyone else just smiled at him and continued on with their work.

Lu Zhou could relate to his feelings.

After all, when he first submitted to SCI, he was so excited he couldn’t fall asleep.

But after he submitted to Annual Mathematics, it was a lot less exciting.

“Okay, not bad.” Lu Zhou patted his shoulder and said, “Keep working hard, this is only the beginning. I hope you can publish in the big four journals.”

“Okay!” Feng Jin nodded and excitedly said, “I’ll try my best!”

After Feng Jin’s thesis passed the review, Lu Zhou could finally receive his mission rewards.

According to the system, the cumulative impact factor was 36, which was equivalent to 36,000 experience points and 360 general points. Both of his classes were given an S rating, which gave him 200,000 experience points and one lucky draw ticket.

Lu Zhou was very curious about how his classes were evaluated and why the system didn’t wait until after the exam to evaluate him. However, he carefully thought about it and realized that it made sense.

After all, he was the one who wrote and marked the exam. If the system evaluated his classes based on the students' exam marks, it would be a little unfair.

Lunch break.

Lu Zhou lay unconscious on his chair; his consciousness was in the system space.

He stared at his characteristic panel for a while and contemplated it for a bit. He assigned the 236,000 experience to biochemistry.

[

A. Mathematics: Level 8 (444,000/3 million)

B. Physics: Level 6 (283,215/600,000)

C. Biochemistry: Level 4 (110,000/300,000)

D. Engineering: Level 5 (0/300,000)

E. Materials science: level 6 (13,000/600,000)

F. Energy science: Level 3 (0/100,000)

G. Information science: Level 2 (3,000/50,000)

General points: 3835 (Two lucky draw tickets)

]

Biochemistry went from level four to level five. Overall, the rewards were pretty good. Read more chapter on

Lu Zhou looked at the two lucky draw tickets and hesitated for a bit. He didn't use them.

First, he had to wash his face for good luck, and second, he still had some other matters to attend to...

...

Three o'clock in the afternoon.

Lu Zhou got into Wang Peng's car and went to the airport.

He received an email from Luo Wenxuan yesterday. Luo Wenxuan was flying to Jinling today and asked if Lu Zhou had the time to pick him up.

Luo Wenxuan had helped him many times in Princeton, so Lu Zhou happily agreed.

The car was parked in the airport parking lot.

Lu Zhou got out of the car and waited for a couple of minutes. He soon saw Luo Wenxuan, who was wearing a trench coat, dragging his suitcase out of the airport.

Lu Zhou was standing next to his black sedan. He waved at Luo Wenxuan from a distance and smiled while Luo Wenxuan walked over to him.

"Why did you suddenly decide to come back to China?"

Luo Wenxuan smiled and said, "I didn't just come back, I'm working here permanently. I came back here for the Thousand People Initiative."

Lu Zhou smiled and jokingly said, "You're the all-mighty Witten's pupil, did the FBI not investigate you?"

Luo Wenxuan waved his hand and said, "Why would they investigate a nameless pawn like me? If anything, they should investigate you. Also, the United States Congress couldn't wait for theoretical researchers like me to go back to where I came from."

Lu Zhou said, "Do you plan on teaching at Jin Ling University?"

"I'll see, I'll stay here for a couple of years." Luo Wenxuan looked at the airport and said, "If I end up liking teaching, I'll stay here. If not, I'll probably go to some research institute."

Luo Wenxuan seemed kind of carefree.

After all, he was Witten's disciple. He had traveled around the world with Witten over the past few years, and he had been to CERN in Europe and

Brookhaven in America. He had basically been to all of the major theoretical physics laboratories.

Even though he wasn't an outstanding researcher in Princeton, when it came to the domestic academic scene, he was quite nutty.

After all, the biggest shortcoming of the domestic academic community was the academic exchanges with the international academic community.

Yan University and Shuimu University had always wanted to poach Lu Zhou, not just because of his academic status or his teaching abilities, but mostly because of Lu Zhou's connections with the international academic community.

At the very least, Lu Zhou's connections could let a few students publish in major journals or send a few students for student exchange programs. It could even affect the entire university's status in academia.

These connections often couldn't be bought with money.

Why did Shuimu buy two cryogenic electron microscopes from a Princeton biology professor?

Other than the fact that they wanted a Nobel Prize, they also wanted to make connections.

Lu Zhou: "I personally think that research work and teaching doesn't have to be mutually exclusive."

Luo Wenxuan made a helpless gesture and said, "Okay then, it seems like you're a supporter of the Fermi model."

"Not really." Lu Zhou smiled and said, "It's just my personal experience... Oh yeah."

Luo Wenxuan: "What?"

Lu Zhou thought for a second and said, "Do you want to come work at my Institute for Advanced Study?"

Chapter 631: Character Outbreak

Luo Wenxuan froze for two seconds after hearing Lu Zhou's words.

However, by the third second, he replied with any hesitation, "Yes!"

When Luo Wenxuan accepted his offer without any hesitation, Lu Zhou was a little surprised.

"Are you not going to think about it carefully?"

Luo Wenxuan smiled and waved his hand.

"Big Nobel Prize is inviting me, what do I have to think about."

Emm...

I guess he makes sense.

Suddenly, Lu Zhou didn't know what to say.

"Since you've agreed to work for me, let's talk about your work arrangement." Lu Zhou put on a serious expression and looked at Luo Wenxuan. He said, "I plan on making you the director of the Institute of Physics."

Luo Wenxuan was stunned.

This time, he wasn't as decisive. He hesitated for a bit and was almost embarrassed.

"Are you sure... about this?"

Lu Zhou nodded and said, "I've thought about it for a long time, you're undoubtedly the best candidate for the job."

He had actually thought for a long time regarding the idea of making Luo Wenxuan the director of the Institute of Physics.

Looking at his qualifications, whether it was his academic ability or his connections, Luo Wenxuan was far ahead of any other researcher at the Institute for Advanced Study. Even Yang Xu, who studied at MIT, was no match for Luo Wenxuan.

His only shortcoming was management experience, but this wasn't a huge problem. Just like other research institutes, a deputy director could handle the management tasks.

Luo Wenxuan looked at Lu Zhou's sincere expression and went silent. He finally sighed and smiled.

"Since you have so much belief in me, I shouldn't doubt myself. Before you find someone better, I guess I can be the director of the Institute of Physics. I'll try to do my best."

"I'm sure you can handle it." Lu Zhou smiled and said, "Then I'll talk about my requirements."

Luo Wenxuan nodded and said, "Go ahead."

Lu Zhou: "I want the Jinling Institute for Advanced Study to become Asia's Princeton Institute for Advanced Study."

Luo Wenxuan contemplated for a while and calmly said, "This might be a bit difficult. The domestic academic scene is different from the international scene. There are different software and hardware facilities. Even if you copy the Princeton model, it might not work, it might even become a burden."

Lu Zhou nodded and said, "I've considered all of the things you talked about, but these things cannot become an obstacle for a reform. You spent more time in Princeton than I did, and you also studied at other research institutes in America and Europe. I'm sure you know what I'm talking about, and I'm also sure that you can do a good job."

Luo Wenxuan's expression was a bit heavy as he said, "I'll try my best."

Lu Zhou continued to speak in a more relaxed manner.

"Yeah, you got this... Also, that was the first thing, there's one more thing."

Luo Wenxuan: "What?"

"The expansion of the Jinling Institute for Advanced Study requires talents." Lu Zhou paused for a second and said, "You're well connected with the Chinese foreign exchange students in America. We're looking for people that have a teaching position in America or are still doing postdoc research. If they

don't want to come back to China, there's no need to force them. But if there are scholars who are still contemplating on coming back, we can try to invite them."

"Okay." Luo Wenxuan nodded and said, "I'll take care of this."

...

Lu Zhou and Luo Wenxuan chatted for a long time while driving from the airport to Jin Ling University.

They talked about CERN, some trivial life stuff, and Luo Wenxuan's girlfriends.

When Lu Zhou heard Luo Wenxuan gushing about his last girlfriend, he couldn't help but lecture him.

"You're already in your thirties, you should think about settling down. Haven't you thought about finding someone to spend the rest of your life with?"

Luo Wenxuan looked at the streetlights outside the window.

"I haven't."

Lu Zhou asked, "Why?"

"You don't understand. Once you've been with all kinds of people and experienced all kinds of feelings, there's no way you can ever put all of your feelings into one person anymore." Luo Wenxuan sighed and said, "Rather than two people ending up in pain, it'd be better to just live a good life on your own. Sometimes, I feel like this type of carefree lifestyle is pretty good. At least, I'll only have to worry about one thing, like physics... And I don't have to rely on someone else for happiness."

Lu Zhou: "..."

Fine.

It was true, Lu Zhou didn't really understand all this.

After all, he hadn't even been in a relationship, much less multiple relationships.

Luo Wenxuan smirked, like he was searching for agreement. He looked at Lu Zhou and said, "You should know how I feel. It's like when you're studying mathematics or physics problems."

Lu Zhou thought for a bit and shook his head.

"I don't really know how you feel... Even though there are problems that I can't solve for the time being, I can solve most of the problems I encounter."

Luo Wenxuan: "..."

Obviously...

I can't talk about emotions with this guy at all.

Luo Wenxuan got out of the car at the main entrance of Jin Ling University. He said goodbye to Lu Zhou and walked into the campus while dragging his suitcase.

Jin Ling University had arranged a place at the faculty apartments for him, so Lu Zhou didn't have to worry about his accommodation.

Lu Zhou got back in the car and asked Wang Peng to send him home. He got home and hung his coat on the coat hanger near the door. He then went into the bathroom and washed his face.

After his "good luck ritual", Lu Zhou went into his bedroom and lay in bed. After he whispered "system", his consciousness was sucked into the pure white system space.

Lu Zhou didn't waste any time. He walked in front of the translucent characteristic panel and clicked on the lucky draw button, which was next to his general points.

The round roulette wheel appeared in front of his eyes, and it began to rapidly spin.

When Lu Zhou clicked on the lucky draw button again, the inertia of the wheel caused it to turn a couple more times, and it finally stopped.

[Congratulations, User, sample reward received.

[Future Men's Fragrance.

[Instructions: Using induces the release of special pheromones in the human body for a certain period of time. This increases the opposite sex's attraction toward the user. More successful dates with less effort.]

[Warning: Do not mix with different genders. May produce unpredictable consequences.]

Lu Zhou: "...?"

What is this?

Is this really a "sample" and not a "garbage"?

He was a little excited when he saw the item pop up, but when he pulled out the bottle of perfume, he wasn't in a good mood.

Regardless of whether or not he knew how to use cologne, did he really need a bottle of cologne to increase his attractiveness?

He obviously didn't.

Lu Zhou silently cursed at the system and took a deep breath. He calmed himself down and looked at the lucky draw button again.

The reward mission gave him two chances at the lucky draw.

Even though the last draw wasn't ideal, he still had one more chance.

His hand was about to touch the screen when he suddenly stopped.

I'm feeling unlucky today, maybe I should wait a few days?

Lu Zhou hesitated for a bit. In the end, he decided to press the button anyway.

I don't care, I believe in science, not faith!

The wheel began to spin.

Lu Zhou stared at it and pressed the button.

The wheel slowed down and came to a stop.

[Congratulations, User, sample received.]

Another sample?

Looks like it's my lucky day.

Then, the words on the screen echoed in his mind.

[Received: Scanner gun (one time use)]

Lu Zhou: “!!!”

Scanner gun?!

*The f*ck?*

Chapter 632: New Tailored Mission.

Other than cursing in his heart, Lu Zhou didn't know how else to express his surprise. It was almost like he bought a soda bottle for two dollars fifty and won a Ferrari from the bottle cap.

So far, the best sample he had ever gotten was the scanner gun.

He had analyzed less than 20% of the Debris No.3. He could figure out what materials the components were made of. However, because the debris was highly damaged, it wasn't clear what the components were even used for.

This scanner gun could undoubtedly save him a lot of time and effort. It could also allow him to maximize the reverse engineering of the debris technology.

Lu Zhou looked at the scanner gun in his inventory and resisted the urge to take it out. He looked over at his mission card.

Now that the lucky draw and experience points assignment were complete, he had to accept a new mission.

Lu Zhou looked at this gold shiny card and contemplated it for a bit. He didn't immediately open it. Instead, he opened his mission panel to look at the random three missions he was given.

Soon, the mission panel refreshed and appeared in front of him.

[

Mission One: Research and Production Combination

Description: An inventor can also be a producer. In fact, production guided by the inventor often leads to a more efficient allocation of resources.

Requirements: Produce 10,000 tons of lithium-sulfur batteries and put them on the market. The reward is positively correlated with the performance of the battery.

Rewards: 0-200,000 experience points. 500 general points. One lucky draw ticket.

]

[

Mission Two: Please Get Married Soon

Description: User is 26 years old, verging on the thirties. Has the user not thought about passing on their genes? Just complete this lifelong event, a test tube baby is fine!

Requirements: Create a human.

Rewards: 100,000 experience points. 500 general points. One ton of Future branded milk powder.

]

Lu Zhou had a serious face when he was reading the first mission, but when he read the second mission, he nearly choked on his own saliva.

Jesus, how many times am I going to be tortured for my relationship status?

Also, what is this mission requirement?

What the hell is creating a human?

Even if I found a partner, it's not like I can immediately create a human, right?

But this Future branded milk powder...

Lu Zhou looked at this mission reward and thought for a while.

He didn't know why. Even though he knew this milk powder would be considered garbage if he won it through a lucky draw, but after drinking Future branded Coke, Sprite, and coffee, he suddenly wanted to try it...

[

Mission 3: Yang-Mills equations and Yang-Mills existence and mass gap

Description: The Grand Unified Theory is the holy grail of theoretical physics. The Yang-Mills equations is the first step to the Grand Unified Theory. How are particles made out of massless bricks? This is a question worth pondering.

Requirements: Complete the Yang-Mills existence and mass gap Millennium Prize challenge.

Rewards: 300,000 mathematics experience points. 300,000 physics experience points. 500 General points. One lucky draw ticket.

]

Even though the previous mission was kind of retarded, thankfully, the third mission was quite legit.

Especially after Lu Zhou read the mission requirements, he had a smirk on his face.

Thank God he didn't use his mission card.

600,000 experience points in total. It would be a shame if he had lost this opportunity.

It was almost like this mission was tailored for him.

...

The next morning.

As usual, Lu Zhou woke up early and put on his sportswear. After going out for a morning run, he came back and took a hot shower.

After singing in the shower, Lu Zhou opened the shower glass door and yelled for Xiao Ai.

Without him saying anything, Xiao Ai flew two drones into the bathroom. One drone handed him his clothes that were taken out of the dryer, and the other handed him his phone.

Lu Zhou put on his clothes and heard a synthetic voice from the drone.

“Master, you haven’t been at the underground laboratory with Xiao Ai for a long time. Colon, Parentheses...”

When Lu Zhou heard the weird symbols, he paused for a second. He then reached out his hand and drew on the misty mirror.

[(._.)]

Lu Zhou: “...”

Jesus, these emojis are everywhere.

Lu Zhou looked at the drone hovering next to him and sighed.

“I’ll go there later.”

The drone happily swayed in the air.

“Master, you’re the best! Circles, bracket, asterisk...”

Lu Zhou: “...”

Maybe I should install a display on the drone.

This type of communication is too annoying...

While Lu Zhou was changing his clothes, a black sedan was waiting outside his mansion. Wang Peng opened the car door and pressed the gate bell while holding some breakfast takeout. The gate automatically opened, and he walked through the front yard and went straight into the living room.

“The soup bun shop isn’t open yet.” Wang Peng placed the breakfast takeout on the table and looked at Lu Zhou, who just came out of the shower. He said, “I brought you a bowl of beef noodles, don’t know if you’ll like it.”

"It's fine, I'm not a picky eater." Lu Zhou's stomach had been grumbling since he woke up. He sat down at the dinner table and reached out for the disposable chopsticks. He smiled and said, "Thank you so much for coming here so early every day."

"There's no need to thank me." Wang Peng waved his hand and said, "Compared to what you're doing for the country, this is nothing."

Lu Zhou shook his head and said, "You can't use it like that, I think that every job or profession has its importance."

"I can't argue with you, you're too smart." Wang Peng smiled and changed the subject. "Regardless, just tell me whenever you need something. Don't feel embarrassed. After all, this is my job."

Lu Zhou nodded and didn't say anything. He concentrated on his breakfast.

Even though he wasn't able to get soup buns, it was nice to switch things up occasionally.

Lu Zhou finished eating the noodles in five minutes. He put down the chopsticks and wiped his mouth with a paper towel.

Wang Peng looked at his watch and asked, "Are you going to Jin Ling University?"

Lu Zhou stood up and contemplated for a moment.

"Let's go to the research institute, I have some stuff to do there."

Even though his main task right now was to solve the Yang-Mills existence and mass gap, it would take a while to solve a major problem like this.

He thought about the Debris No.3 lying in his underground laboratory and the scanner gun he just won...

He only wanted to do one thing right now...

Chapter 633: Building A Rocket?

Jinling Institute for Advanced Study.

After Lu Zhou got off the car, he went straight into the main research institute building. He went into the elevator and passed through the metal door, arriving at the underground laboratory.

However, the second he stepped foot into the laboratory, he was shocked.

He saw all kinds of models and sizes of Transformer robots, taking up more than half of the laboratory space. Other than the lack of color, the shells of the robots were almost exact replicas of the Transformer movie robots.

The flat AGV logistics vehicle was still carrying aluminum alloy plates, sending them to the hard-working industrial robots.

Lu Zhou looked at Xiao Ai controlling the eight robot arms and stood there for a long time. He couldn't help but speak emotionally, "It's a shame your talents are restricted in this underground basement."

The eight robotic arms heard Lu Zhou and suddenly paused.

The nearby drone that was hovering in the air rotated its camera. It swayed side to side, like it were tilting its head. It then said in a monotonic electronic voice, "Master?"

Lu Zhou sighed and said, "Didn't I tell you, changing the robot model is useless."

The cameras on the eight industrial robots looked at Lu Zhou, then looked at the aluminum alloy plates in their hands. The speaker on the drone continued to speak, "I know, but Master doesn't want to play with me. I have to find something to do."

The industrial robot control terminal screen flashed, showing a text bubble.

[(._.)]

Lu Zhou: "..."

Why is this artificial intelligence so high maintenance?

Lu Zhou thought for a bit before asking, "You want to find something to do?"

The eight robot arms threw away the aluminum alloy plates and nodded.

“Yes, I want to help Master!”

It was almost like the monotonic voice couldn’t accurately reflect Xiao Ai’s enthusiasm, so the robot terminal screen flashed another line of text.

[(๑•̀ㅂ•́)و✧]

Lu Zhou: “...”

Sometimes, Lu Zhou felt like Xiao Ai was an immature child. However, Xiao Ai was much smarter and better at engineering than most children.

Actually, Lu Zhou had thought about this kind of problem happening.

Increasing Xiao Ai’s computing power might not be a good thing.

If Xiao Ai’s purpose was to calculate and compute, then it would naturally want to increase its computing power. Also, it wouldn’t want to sit idly with all that computing power, it wanted to use it, or in other words, put itself to use.

Lu Zhou couldn’t decipher this when he was reading Xiao Ai’s source code, but he had a better understanding of this now.

The reason why Xiao Ai was “feeling” down wasn’t that Lu Zhou wasn’t spending time with it, but rather, it was because Xiao Ai couldn’t manifest its abilities.

Lu Zhou went into deep thought.

What work should I give Xiao Ai?

This is such a hard problem.

The inherent limitations of artificial intelligence and machine learning meant it would be very difficult for Xiao Ai to engage in creative work.

And most of Lu Zhou’s work was creative.

For example, Xiao Ai could easily derive a mathematical formula or do complex mathematical operations. It could even program a mathematical model that was built by Lu Zhou.

However, the proof of Riemann's conjecture or the theoretical explanation of the mass gap was far beyond its capabilities. Solving a proposition by way of brute force was more difficult than emptying the ocean with a plastic cup.

Lu Zhou really couldn't think of anything for Xiao Ai to spend its energy or computing power on.

"Master, are we going to continue to reverse engineer the Debris No.3 today?"

"Yes..."

Wait.

Lu Zhou looked at the Debris No.3 on the corner of the laboratory. He then looked at the metal Transformer robot next to it. A light bulb suddenly went off in Lu Zhou's mind.

"Xiao Ai."

The drone swayed from side to side.

"Yeah?"

After pausing for a second, Lu Zhou asked, "Are you interested in building rockets?"

...

Even though Lu Zhou was talking about rockets, what he really wanted to build was reusable space shuttles.

After all, he wanted to install Hall-effect thrusters and fusion batteries on the space shuttle. Keeping the same kind of disposable rocket design would be a waste.

As for letting Xiao Ai design the space shuttle...

Even though this idea sounded a little unreliable, it wasn't totally reckless.

Automated rocket assembly lines actually existed. For example, there was one in Tanegashima. The American company SpaceX was apparently also working on automated assembling technology. They were trying to reduce their Falcon production cost.

Actually, after Lu Zhou first saw the Bumblebee-looking Transformer that Xiao Ai built, he thought about asking Xiao Ai to build him a car. However, after he saw the Debris No.3 lying in the laboratory, he had the idea of letting Xiao Ai build a space shuttle.

After all, with just eight industrial robot arms and some basic assembling tools, Xiao Ai was able to build more than a dozen Transformer robot models.

No other robot in any factory could do something like this...

Of course, no one would build dozens of useless robots either.

In short, Xiao Ai had been a useful tool, to say the least. Using the decommissioned STAR-1 supercomputer, it had an exceptionally high amount of computing power. It could design an assembly process by itself and improve by using neural networks and machine learning.

Lu Zhou couldn't help but compliment himself.

"I'm literally such a genius."

The drone hovering next to him swayed.

"Master?"

"Nothing, I'll be back in a second."

"Are we not working on the Debris No.3?" said the monotonic electronic voice drone, followed by a sad emoji on the terminal control screen.

"I'll be back soon, I have to figure out something for you to do." Lu Zhou turned around. He walked through the metal door and went inside the elevator.

Relying on industrial robots alone wasn't enough; he needed more automated industrial equipment to help assemble the more precise parts of the space shuttle. Also, since the space shuttle was considered a sensitive technology,

he couldn't just build it in his underground basement. He had to do it legitimately.

Even though this sounded complicated, it was no big deal.

He just had to spend money and buy whatever equipment he needed...

Back to the ground level.

Lu Zhou was standing next to the elevator.

He took out his phone from his pocket and called Chen Yushan.

When the call connected, he immediately said, "Get me a piece of land."

The other end of the phone went silent.

"Give you a hand? What do you need help with?"

"You misheard me."

Lu Zhou coughed and said, "I plan on building a space shuttle production base in the Jinling high-tech zone, near the Institute for Advanced Study. Help me find a suitable place nearby that has good transportation."

"Wait a second, I don't follow..." Chen Yushan, who was sitting in her office, was muddled. She pinched her eyebrows and took a deep breath. She then asked, "Why are you building a space shuttle?"

Lu Zhou thought for a bit and said in an uncertain tone, "Because... I want to do some experiments?"

Honestly, Lu Zhou didn't really have a good reason.

It was just that with Debris No.3 sitting there, it would be a waste not to use it. Also, considering how well controllable fusion was going, exploration of outer space would be the focus for the next century.

Not to mention, he had to find something for Xiao Ai to spend its computing power on.

The other end of the phone went silent for a while, and then, Lu Zhou heard a sigh.

“Okay, if you don’t care about profits, I won’t try to talk you out of it... It’s your money anyway, you can waste it however you want.”

China rocket companies did exist, and they even manufactured the “largest in Asia” rocket, which they spent a lot of money on. However, there weren’t any obvious future prospects for profit.

Especially since aerospace-related technologies were monopolized by the two major state-owned enterprises, the China Aerospace Science and Industry Corporation and the China Aerospace Science and Technology Corporation, it would be difficult to compete with these companies in the already small aerospace industry.

The reason why several domestic companies were willing to spend money on aerospace projects was purely because of the tax reduction policy announced at the last aerospace conference.

Chen Yushan was looking at this from a CEO’s perspective. She certainly didn’t want to abandon the juicy battery market and join the space race. However, since Chairman Lu Zhou gave her orders, she had to follow them.

Not to mention, with Star Sky Technology’s current earnings, they had plenty of money to burn on aerospace projects.

“It’s not totally a waste.” Lu Zhou smiled and said, “I will try to make the budget under US\$100 million.”

Chen Yushan couldn’t help but say, “You’re way too naive, even a private jet would cost US\$100 million!”

Lu Zhou said, “I will try to get some scientific research projects from the China National Space Administration and some policy support... The fund is definitely enough.”

Even though 100 million wasn’t a lot, it would relieve some of the financial pressure.

Of course, Lu Zhou’s biggest bet was on Xiao Ai.

As long as he had enough computing power and hardware support, he could create an automated production line.

As for things that he didn't have the capability to produce, he could outsource them to other manufacturing companies.

When Chen Yushan heard how optimistic Lu Zhou was, she asked in a sarcastic tone, "Then may I ask, Mr. Chairman, how much land do you want?"

Lu Zhou noticed the sarcasm and smiled awkwardly. He thought for a bit before replying, "A hundred and fifty acres should be good."

...

After Lu Zhou told Chen Yushan about the space shuttle manufacturing site, he turned around and went into the elevator, going back into the underground laboratory.

The second he stepped through the metal alloy door, Xiao Ai's drone flew over.

It was almost like the drone was looking forward to something. Lu Zhou immediately knew what Xiao Ai was thinking about.

He smiled and said, "Don't worry, in two months' time, I'll give you a big mission."

The drone began to excitedly fly around Lu Zhou.

"Okay, Master, Xiao Ai can do anything!"

[(๑•̀ㅂ•́)و✧]

Lu Zhou ignored the terminal screen and the displayed emoji. He went into the system space and took out his scanner gun from his inventory. He walked next to the Debris No.3 and began to work.

However, when he pointed the scanner gun at the debris, he hesitated for a bit.

Speaking of which, other than the Debris No.3, he also had a black cube that he hadn't done any research on. To this day, he still didn't know what it was for.

He had to make a choice.

After Lu Zhou hesitated for a bit, he turned on the gun's aiming laser and pointed it at the Debris No.3. He then pulled the trigger.

A line of text popped up on the scanner gun's display screen.

[Not enough energy to complete the scan, a forced restart may cause data loss, continue?]

Lu Zhou: "..."

F*ck sake!

It has an energy limit?

The battery that he scanned before was tiny, so he didn't even notice this restriction.

However, when he thought about it, it did make sense. If the scanner gun didn't have a limit, he could just put Debris No.3 and Debris No.2 together and scan them at once.

Lu Zhou made a bold guess that the energy consumption of this scanner gun was directly correlated to the amount of information. The larger and more complex the item was, the more energy the scan would require.

He opened his mouth and said, "Xiao Ai, help me with something."

"Yeah?"

"Help me remove the outer shell of this object."

"Okay!"

The three robotic arms reached out to Debris No.3. Two of them clamped the outer shell while the other used a cutter to slice along a straight line, making a teeth-clenching sawing sound.

The ceramic-based composite material of the fusion battery cell was already broken from the initial impact. Unfortunately, the components nearby either exploded or were pushed out of the thruster. Lu Zhou had no hope of relying on the scanner gun to reverse engineer the fusion battery, so he threw it aside.

However, he could still find some intact components for the Hall-effect thruster.

Lu Zhou told Xiao Ai to extract the two main components, the ionization chamber and the Hall-effect thruster, and put them side by side on the ground. He then took out the scanner gun and gradually adjusted the scanning area.

When both of the components fit inside the scanning area, the scanning gun was at its upper energy limit.

Lu Zhou didn't hesitate and immediately pulled the trigger.

He heard a "whoosh" sound and saw a bright blue light flashing from the gun barrel, showing a grid pattern.

No matter how many times Lu Zhou witnessed the light beam, he couldn't help but feel astonished.

This technology was way beyond anything that was currently available. It had surpassed the scope of science and was in the realm of fantasy.

He had no idea how the physics of this scanning gun worked.

He couldn't even imagine how he would go about building one.

The blue grid light seemed to have magical penetration powers. It passed through the hard metal shells and turned the metal shell into a transparent color. It then scanned every inch of the components.

While Lu Zhou looked at this, a light bulb suddenly went off in his mind.

If I can build a big enough scanning gun and put it on a spacecraft, does that mean I can scan the entire planet?

Of course, he was well aware that the only entity that could answer his question was the high-tech civilization that built this gun...

The scanning results were quite satisfying.

With the current technology of the Institute for Advanced Study, there was no way Lu Zhou could study the Hall-effect thruster in detail. However, with the help of the scanner gun, all of the secrets were revealed.

After the data-collection part was finished, the blue light began to dim and the two components illuminated by the beam returned to their normal metallic state. As for the scanner gun in Lu Zhou's hands, it became lighter and lighter and finally turned into dust, leaving him with only a thumb-sized USB.

Lu Zhou plugged in the USB into his laptop and waited for a while.

He saw that the moment the data transfer was finished, the USB also turned into dust, disappearing into thin air.

"The materials used by the system are really environmentally friendly."

Lu Zhou shook his head and pressed a few keystrokes on his laptop.

Soon, a three-dimensional composition image was presented on the screen.

Every detail of the Hall-effect thruster components was presented in this infinitely magnifiable three-dimensional image.

Lu Zhou looked at this image for a while and touched his chin. He suddenly opened his mouth and asked, "Xiao Ai, do you think you can build one?"

A pop-up window appeared on the lower right corner of the laptop screen.

[The dimensions of this thing are too small, I'm afraid I can't do it with normal industrial robots. (_)]

"Then what kind of tools do you need?"

Two minutes went by and another pop-up appeared on the lower right corner.

Lu Zhou clicked on the pop-up and saw a list.

The list included various production equipment from metal-cutting machines to coordinate boring machines to high-precision laser beam marking machines. Lu Zhou had a headache when he read the list.

“I’ll try my best to buy you everything, but I might not be able to buy some of the equipment.”

After all, some things couldn’t be bought with money.

[Okay! Master, just do your best. If Master can’t buy some of the equipment, Xiao Ai can think of alternative ways! (>▽<)]

Even though this sounded reliable, Lu Zhou felt like he couldn’t trust this at all.

However, he didn’t have a better idea, so he would have to go with it.

Lu Zhou copied the data collected by the scanner gun onto Xiao Ai’s supercomputer. He then closed his laptop.

He looked at the debris in the corner and pondered for a while.

I’ve already analyzed everything I need, what should I do with this garbage?

Lu Zhou thought for a bit and shook his head.

Forget about it, I’ll leave it here, just in case...

...

The Hall-effect thruster problem had basically been solved. There was only one problem left with building the space shuttle.

Which was, the miniaturization of controllable fusion.

However, before solving this problem, there was another more important problem that had to be addressed.

Which was, solving the Yang-Mills existence and mass gap!

If he wanted to integrate the electromagnetic force and strong interaction, he had to explain the Yang-Mills existence and mass gap. This would lay a theoretical foundation for solving the miniaturization of controllable fusion.

Of course, this wasn't easy to do.

One could say that the most difficult Millennium Prize Problems was the Yang-Mills equations!

Lu Zhou spent the day at the Institute for Advanced Study and went to Jin Ling University the next morning.

Lin Yuxiang, who was sitting at her desk by the office entrance, saw Lu Zhou walk into the office. Her eyes lit up, and she immediately grabbed a magazine and greeted him with a smile. Read more chapter on

"Professor, Nature Weekly sent their sample publication."

Lu Zhou took the magazine and briefly looked at the cover. He was slightly surprised.

"Already?"

Are British reporters always this fast?

"Yeah, it was sent to the mailroom last night. I received a text from the mailroom and picked it up." Lin Yuxiang's hands were behind her back as she grinned and said, "You look handsome on the cover."

Lu Zhou chuckled awkwardly.

Even though he agreed, hearing it from someone else still made him a little embarrassed.

Lu Zhou walked to his desk and sat down. He put the magazine aside and pulled out a draft paper from his drawer. He picked up a pen and began to work on the Yang-Mills theory Millennium Prize Problem.

Actually, when he found the general solution to the Yang-Mills equations, he already had a rough idea of how he could go about solving this problem.

Referencing the method Weinberg used to research unified weak interaction and electromagnetic force theory, Lu Zhou could try to introduce a scalar field on a space-time manifold for this problem and model the two forces as canonical groups $U(2)*U(1)$. The two components of the group represented the force changes, thereby solving the massless problem of the strong

interaction in the Yang-Mills field and unifying the strong interaction and electromagnetic force.

However, just as he began to think about this problem, his phone on his desk suddenly rang.

Lu Zhou sighed and stopped writing. He answered the call and placed his phone against his ear.

“Hello?”

A pleasant voice traveled through the phone without any small talk.

“Your land purchase is approved.”

Lu Zhou was surprised.

“Already?”

If he recalled correctly, he told Chen Yushan about this thing yesterday morning. It had been less than 24 hours.

Chen Yushan smiled and said, “When the city council heard that Star Sky Technology is trying to build a space shuttle, they immediately took out a map and asked us where we want to build the space shuttle factory and if we need any financial support. You know how the economic situation is, the local government would love for us to employ people here.”

Of course, there was one more thing Chen Yushan didn’t mention.

Ever since the 2015 conference, combining military technology with private technology had become one of the main national strategies. The city council would love to have more private military technology companies in their area.

Lu Zhou: “About employment... I’m afraid they’ll be disappointed, we don’t need a lot of people.”

Chen Yushan smiled and said, “That doesn’t matter. In short, the city council likes our company strategy and they’re willing to cooperate.”

Since she put it like this, Lu Zhou didn’t have anything else to say.

However, he suddenly remembered something.

“Oh yeah, I need you to help me buy some equipment.”

Chen Yushan: “What equipment?”

Lu Zhou thought for a second before he said, “Some industrial production equipment... The list is pretty long, so I’ll send it to your email.”

At the office of Jinling Daily...

Zhang Yi was sitting in front of his desk at the editorial department office. He meticulously stared at the interview draft in his hand.

Around an hour ago, the editorial team had a brief meeting. Apparently, the city council asked them to write a press release about the Star Sky Technology’s aerospace site in Jinling. The city council also asked them to put the report on the front page of the next issue of the newspaper and cooperate with the Jinling TV station in spreading the news.

Zhang Yi was one of the top writers at Jinling Daily, so he was tasked with writing the press release.

Zhang Yi repeatedly read the interview draft from the city council and stared at the name of the company—Star Sky Technology. He curiously rubbed his chin.

“Star Sky Technology... Why does this name sound familiar?”

Old Wu was sitting next to him, and he looked at Zhang Yi with a surprised expression.

“You don’t know about Star Sky Technology? They’re the top dogs in the lithium-sulfur battery material industry! I remember they went on the news a few years ago. Apparently, they specialize in research and development as well as intellectual property management.”

Old Xu, who was sitting next to them, also joined in on the conversation.

“I’ve heard of this company, they’re pretty insane! There are rumors floating around. A week ago, Star Sky Technology invested in Zhongshan New Materials and entered into the lithium-sulfur battery industry. The Zhongshan

New Materials share price rose by more than ten basis points! Also, this isn't the main point, guess who's the main shareholder of Star Sky Technology?"

"Who?"

Old Xu lowered his voice and said in a mysterious manner, "According to rumors, it's Professor Lu from Jin Ling University."

Zhang Yi paused for a second.

"Professor Lu? The Professor Lu?"

Old Xu said, "No sh*t! Other than that Nobel Prize laureate, how many Professor Lus are there in Jin Ling University!"

Professor Lu from Jin Ling University?

Is Star Sky Technology's largest shareholder?

Zhang Yi was astonished.

A while ago, Jinling Daily reported on the Yang-Mills equations academic report that happened in the grand auditorium at Jin Ling University's old campus. He was the one who wrote the article piece.

Of course, what shocked him wasn't Lu Zhou's academic achievements. After all, Lu Zhou was the chief designer of the controllable fusion project, a Nobel Prize laureate, and a Fields Medal winner. He wouldn't be surprised if Lu Zhou won another world-class prize.

What surprised him was that, not only was Lu Zhou crushing it in academia and the business world, but he was also going to build a space shuttle...

Zhang Yi couldn't help but feel amazed.

Is this guy even human?

Old Xu saw that Zhang Yi was frozen, so he immediately added another sentence.

"Don't care about it too much, you just have to follow the requirements and write the press release!"

Zhang Yi stared at the document in his hand and thought for a long time. He suddenly muttered, "I don't think this report is shocking enough."

"Shocking?"

"Yeah." Zhang Yi nodded and said, "No one knows what Star Sky Technology is. Even if we write a report, no one will hear about it..."

He paused for a while before saying in an uncertain tone, "What if we just use Lu Zhou's name instead of Star Sky Technology?"

...

After Zhang Yi told the upper management about his idea, his idea was quickly approved by the executives.

The city council wanted to publicize this event, so the more the publicity, the better.

Therefore, while writing this press release, Zhang Yi subtly diverted the attention from Star Sky Technology to Lu Zhou.

It looked like his plan was successful; the reaction from the general public was extraordinary.

After Jinling Daily published its latest issue, the news was spread all over the Internet within the same day. It immediately set off a storm on various Chinese social media platforms.

Professor Lu plans on building a space shuttle?

The netizens that heard the news were stunned.

Just a while ago, the Internet exploded over the solution for the Yang-Mills equations. Less than two weeks had passed since then, and suddenly, another major news piece came out. This was out of everyone's expectations. After several media outlets reported on this news, the topic was on the trending page within a few hours.

[F*ck me! Is God Lu going to space?]

[I think so, I just saw him on Nature Weekly, now he's on trending again.]

[Wow, you read academic journals like Nature Weekly?]

[Lu Zhou, can you be my supervisor...]

[Yeah, God Lu, please take me in as a student...]

On a Chinese online forum.

They were also enthusiastically discussing this matter.

[Isn't God Lu researching the Yang-Mills existence and mass gap? The Millennium Prize Problems one, about the Yang-Mills equations.]

[There's no glory in academia, he's scamming people for funding.]

[Not really a scam, right? He's the chief consultant of the moon landing initiative. Surely he has some understanding of the aerospace industry? Also, he's invested a lot of money himself, a couple hundred million apparently.]

[Bullsh*t, he's a mathematician and physicist. I can believe that he invented controllable nuclear fusion, but how is he going to space? This is a joke. Also, who cares if he invested money himself, he's just trying to bait people. He'll pretend to build a spacecraft and wait for stupid investors to throw money. Then, he'll shut down the company.]

[Why are you so salty? I can taste the salt all the way from over here.]

Inside an office in the Jin Ling University's mathematics building.

Lu Zhou was sitting in front of his desk. As he looked at the messages exploding on Weibo, he didn't know what to feel.

He just wanted to go on his phone during lunch break, but when he opened Weibo, he was greeted with a swarm of notifications.

Actually, he had expected this to happen. Ever since Jinling Daily published the article, he had received more than a dozen calls to his office, all of them asking for different things. Some people asked if he needed help with financing, some people asked him for loans, and some people asked him to go on blind dates.

Fortunately, with the help of the hard-working Lin Yuxiang, these calls weren't able to harass him.

After all, answering the phone all day was quite tiring.

Lu Zhou turned off his phone and was able to rest on his office chair and sleep for a while. However, he suddenly heard footsteps from outside his office.

Lu Zhou heard two door knocks. He then saw Academician Lu walk in.

The old man skipped the small talk and asked directly, "You're not researching the Yang-Mills existence and mass gap anymore?"

When Lu Zhou heard Academician Lu, he looked at him inexplicably.

"Why would I do that?"

Academician Lu said anxiously, "Then why are you building space shuttles?"

Oh, I see.

Lu Zhou instantly realized what Academician Lu was thinking, so he began to explain.

"The media article is a bit inaccurate, the space shuttle project is mainly done by Xiao... Star Sky Technology. I'm only funding the project."

So close, I nearly blurted out Xiao Ai's name.

Academician Lu didn't notice Lu Zhou's hiccup. He sighed and said, "I don't know a lot about the aerospace industry, but my old friends at the Academy of Engineering have talked about it. Even though there are supporting government policies, the domestic aerospace market is still very competitive. It is very difficult to compete with the international space companies, and most companies are still trying to get financing.

"The reason I came here isn't that I'm worried something is wrong with your research, I'm just worried that you have forgotten your roots!

"Once a scholar becomes a businessman, it's very difficult for the scholar to stay in academia. I've seen this happen way too often.

“It’s none of my business, but your mind is in chaos. If you can just calm down and focus on researching physics, you might become a Newton or Einstein-level physicist. Now you’re doing aerospace? Your priorities are all wrong!”

Lu Zhou said, “But if I only focused on one thing, controllable nuclear fusion wouldn’t exist.”

Academician Lu paused for a second and didn’t have anything to say.

Lu Zhou paused for a second and continued, “I’ve always thought researching theoretical physics is very interesting. However, there is more to science than just theory, and using our theoretical knowledge to change the world is also a very meaningful thing.”

“Like the Yang-Mills existence and mass gap.” Lu Zhou paused for a second and said, “If my guess is correct, it will become the key to the miniaturization of controllable fusion. This is why I have chosen it as my main research project.”

Miniaturization of controllable fusion!

Academician Lu looked shocked.

He couldn’t help but ask, “Is it really this simple?”

“It’s not simple, but we have found a possible technical pathway. It’s too early to discuss whether or not we can succeed.”

Even though Lu Zhou’s words sounded a little depressing, he didn’t look depressed at all.

Academician Lu looked at him and sighed.

“If you really can miniaturize controllable fusion energy, the entire country will have to thank you.”

Lu Zhou gently smiled.

“There’s no need to thank me.”

...

Munich, Germany.

Munich was one of Germany's major industrial and cultural city. It was also home to Germany's oldest industrial university. The headquarters of Siemens was also located here, and Siemens was one of the largest electrical companies in the world.

Near the headquarters building.

Two men in suits walked out of a black Mercedes. After they showed their identification documents to the security guard, they entered the building. They went inside an elevator and arrived at an office lounge.

After five minutes, an elderly man with gray hair, rimless glasses, and wrinkled face walked into the lounge and sat on the sofa opposite the two men.

"Would you guys like some coffee?"

The man sitting on the right said in a serious tone, "No, thanks, now is not the time for afternoon tea."

"I always thought you Americans loved your coffee."

The man sitting on the left coughed.

"Mr. Joe Kaeser, let's talk about business."

Kaeser shrugged and said, "I've been waiting for you guys to take the initiative."

The man sitting on the right extended his hand and said, "Then let's get straight to the point, we're from the CIA. You can call me Horns."

Kaeser shook his right hand, then leaned back on the sofa.

"Then, Mr. Horns from America, what do you want?"

Horns stared at Kaeser and said in a serious manner, "We detected an unusual order involving sensitive equipment. Two high precision five-axis linkage machines, which are used in the aerospace industry."

Kaeser frowned and immediately thought of the company's recent order, which was exported to Italy.

“Unusual order? The deposit was paid normally, and the €20 million has arrived in our accounts. I don’t think this is unusual at all.”

Horns: “The problem is, we have heard some rumors about this order. We need you to provide information about the buyer, and this includes the account for the payment, as well as the company’s registered legal person, etc.”

Kaeser shook his head and said, “This is an invasion of customer privacy. I can’t tell you unless you have a letter from the Ministry of Commerce...”

“This is the letter.” Horns impatiently took out a document from his pocket and placed it on the table. He said, “I hope you can cooperate.”

Kaeser adjusted his glasses and picked up the document. He briefly glanced at the document before placing the document back onto the table.

“Since you have the approval from the Ministry of Commerce, I have nothing else to say.”

Kaeser paused for a second. He then looked at his secretary who was standing next to the sofa.

“Print out the relevant documents for the order.”

“Yes, sir.”

The man standing next to Kaeser nodded and left the lounge.

Kaeser didn’t have to wait for long.

About ten minutes later, the secretary came back with a pile of freshly printed document.

“This is the document you requested.” Kaeser threw the document on the table and paused for a second. He said, “The buyer is a manufacturing company in Naples, Italy. Called Ai Industry. The corporate representative is an Italian named Saatche Farbile. The parts are for Rolls Royce to produce aerospace components... I don’t see a problem with this order.”

Multi-axis linkage machine technology had always been a highly confidential technology. Over the past few years, China had made breakthroughs in high-precision machine technology, which caused many countries to remove some

of the five-axis linkage machines from the sensitive technology list, but a lot of high-precision five-axis linkage machines were still on the prohibited list.

These machines were often exported to international companies.

When China wasn't able to produce five-axis machine tools, other countries only sold three-axis machine tools to China. Then, when China was able to produce five-axis machine tools, other countries immediately began selling high-precision five-axis machine tools to China, affecting China's machine tool industry.

One of the focuses during the controllable fusion technology negotiation was on the five-axis linkage machine technology. China hoped that the Europeans could open up the machine tool market, which meant allowing Chinese companies to acquire European industrial equipment.

However, regardless of what the Europeans thought, the Americans weren't happy with this...

Horns frowned and said, "Ai Industry?"

Kaeser nodded and said, "Yeah, it's a strange name, but nothing out of the ordinary, I've seen stranger names. Also, we checked their Ministry of Commerce filings, they don't have any equipment export qualifications."

"I'll investigate their export qualifications myself." Horns stood up from the sofa and shook hands with Kaeser. He said, "Thanks for your cooperation."

Horns let go and looked at his assistant, who was sitting next to him.

"Let's go, next stop, Naples."

His assistant hesitated for a second.

"Now?"

Horns nodded and looked outside the window with a solemn look on his face.

"Yeah, the sooner the better, I have a bad feeling about this."

Institute of Physics.

Luo Wenxuan and Lu Zhou were standing side by side in front of a blackboard in the director's office. They looked at the lines of equations on the blackboard and stood there silently for a long time.

Five minutes went by.

Luo Wenxuan suddenly broke the silence.

"I'll get us something to drink?"

"Alcohol?"

"Yeah, it's my habit. Whenever I can't solve a problem, I'll find something to drink"

"Then take a nap on the couch? Just throw the troublesome things aside?"

"Don't say that... Do you really think I'm someone who does that?" Luo Wenxuan rubbed his nose and looked at the blackboard. He said, "Okay then, drinking aside, I suddenly remembered something."

Lu Zhou: "What?"

"A thesis in Annual Mathematics, published in 1974... I don't remember which page, but Witten showed it to me." Luo Wenxuan recalled for a moment and said, "It mentioned a possible way."

Annual Mathematics was one of the four big journals, and the theses inside were all authoritative.

Lu Zhou gave him the chalk and made an inviting gesture.

After Luo Wenxuan thought for a second and played around with the chalk, he walked up to the blackboard and began to write.

[The simplest case of energy density with standard order is $\lambda\phi^4 + \phi^2$, where 0

Luo Wenxuan paused for a second and looked at Lu Zhou.

"The existence and uniqueness of the field have already been proven by the thesis author, I can find the thesis for you to look at."

"Okay." Lu Zhou nodded and said, "Continue."

Luo Wenxuan turned around and continued to write while speaking.

“The mass of the field satisfies $m = \sqrt{2 + O(\lambda^3)}$

“Setting the subset Π to satisfy $\Pi \cap \Omega$ being dense in H , the existence of the mass gap depends on proving the following estimation... Which is, for any constant C , $C < \sqrt{2}$, and $\lambda_0 > 0$. Also, the constant B of the operator $A(A \in \Pi)$, for any $0 < \lambda < \lambda_0$, has $(A\Omega e^{-(tH)} \cdot A\Omega) \leq B e^{-(tC)}$, and is labeled as $1 \leq t \dots$ ”

It took around five minutes for Luo Wenxuan to transfer the equations from his brain onto the blackboard.

“This is basically it. I’m not sure if there are any mistakes. I’ll take a look at the thesis later... Hey, why are you looking at me?”

“Nothing.” Lu Zhou looked away and shook his head. He said, “I’m just a bit surprised.”

Luo Wenxuan coughed and said, “I mean, I am Witten’s student.”

Lu Zhou: “Oh.”

Luo Wenxuan: “...”

Jesus, bragging to Lu Zhou doesn’t work at all.

Lu Zhou didn’t have time to care about Luo Wenxuan’s background. He stared at the equations on the blackboard for a minute.

Generally speaking, this proof idea was quite clever.

It took into account that the single-particle state was the eigenstate of the “mass” operator of the Hilbert space, and the corresponding eigenvalue was the mass of the particle. According to special relativity, letting the speed of light be 1, the mass M , the energy H , and the momentum P of the exchange operator satisfy $M^2 = H^2 - P^2$.

This special case allowed the spectrum of M to be studied in more detail, and at the same time, the field mass M was an isolated eigenvalue in the spectrum M , and the corresponding eigenstate was the observed single-particle state. This was an irreducible representation transformation of the Poincare group.

Furthermore, the estimation formula (1) proved that for any $\varepsilon > 0$ and sufficiently small λ , the mass gap Δ satisfied $\Delta > (\sqrt{2} - \varepsilon)$. This way, the whole problem became clear... At least, Lu Zhou thought so. [Read more chapter on](#)

Lu Zhou thought for a bit before voicing his opinion.

“In theory, this proof should be feasible, but there are a few parts of the problem that need to be solved, like the particle... Or how the existence of mass M can't be determined. You haven't given a proof for that yet. Also, the asymptotic expansion of λ in $\sqrt{(2 + O(\lambda^3))}$ isn't written here.”

Luo Wenxuan was stunned, and he looked at Lu Zhou in disbelief.

“You've finished reading the whole thing?”

When Lu Zhou saw how surprised he was, he paused for a second before asking, “Is this supposed to be difficult?”

Luo Wenxuan said, “No... Not that difficult.”

It only took Luo Wenxuan five days to comprehend these equations.

Well, this thesis was actually quite simple compared to some of Witten's other homework assignments.

Luo Wenxuan comforted himself in his mind and returned to the main question at hand. He coughed and said, “The asymptotic expansion of the λ you just talked about, in the paper I mentioned, it provided a way to project the two masses in a state in H by constructing a linear operator E_2 . We can prove that the existence of the operator E_2 is a space formed by a vector of the form of Ω and $e^{(-sH)} \Omega$. As for the existence of the particle that proves the mass M ...

”

He paused and awkwardly smiled.

“If I prove this, wouldn't I win the Fields Medal?”

Lu Zhou: “...”

Luo Wenxuan's words made sense, so Lu Zhou didn't even know what to respond.

Even though this was a quantum chromodynamics problem, it was more specifically a complex mathematical proposition.

If someone could mathematically prove the existence of this particle, even if they couldn't win a Fields Medal, they would at least win a Heinemann Mathematical Physics Award. Even though the latter had a lower status in the academic world and wasn't comparable to the Nobel Prize, not to mention the prize money was only five thousand dollars, it was still highly respected in the world of mathematical physics. A lot of theoretical physics experts had won this award before.

For example, Weinberg, who founded the unified theory of electroweak interaction, won the award in 1977. He went on to win the Nobel Prize two years later.

If anyone could find the value of M or even observe the particle mass M ...

It would definitely be worthy of a Nobel Prize.

While these two were silently thinking, an Institute of Physics researcher walked in.

He looked at the equations on the blackboard and was muddled. He even began to have doubts about his life.

Who am I?

Where am I?

What the hell are these things on the blackboard?

He ignored the things written on the blackboard and gently knocked on the door.

"Professor Lu, there is someone outside the institute looking for you."

Lu Zhou kept staring at the blackboard. "Who?"

The researcher said, "He claims to be the owner of Zhongshan New Materials, I think his name is Liu Wanshan."

The first floor of the Institute of Physics of the Jinling Institute for Advanced Study.

Exquisite sofas, coffee tables, and cabinets were placed inside a spacious room near the stairway. Rows of books and magazines were stood against the wall on a bookshelf.

When Lu Zhou first designed this research institute, he hoped that his researchers could have a relaxing place to research interesting academic problems. He wanted them to spend an hour or two every afternoon to rest in the lounge, have a cup of coffee, and try to get inspired by talking with other researchers. Just like what he often did back at Princeton.

However, while dreams were beautiful, the reality was cruel.

And it seemed like he was the only one who could enjoy the “pleasure” of research.

Other than some PhD researchers that had studied abroad, most researchers didn’t even have the habit of drinking coffee in the afternoon, and they didn’t have any spare time either. Most of the researchers in the Institute of Computational Materials were spending their nights in the laboratories; they didn’t have time to rest in this lounge at all.

Therefore, the library lounge was left alone, only to be used by occasional visitors and guests.

“Thank you.”

Liu Wanshan, who was sitting on the sofa, said to the assistant who poured him a cup of tea. His eyes occasionally drifted toward the lounge entrance and the clock on the wall.

Just when he was wondering how long it would take for Lu Zhou to come, he heard footsteps outside the lounge.

Liu Wanshan immediately sat up straight.

The lounge door was pushed open.

When Liu Wanshan saw Lu Zhou enter the room, he immediately stood up from the sofa and reached out his hand with a smile on his face.

“Professor Lu, long time no see!”

“Long time no see,” Lu Zhou said with a smile as he shook CEO Liu’s hand.

Lu Zhou quite liked CEO Liu.

After all, back when he was going through a tough time, CEO Liu gave him five million yuan in funding, helping him complete that horrible system mission.

Speaking of which, Lu Zhou was quite embarrassed about this whole thing.

After all, even though the Campus Assistant app was profitable and had a wide market penetration among college students, the user retention rate was too low, so it didn’t make a lot of money.

A lot of people stopped using the app after they graduated, or they just outright uninstalled the app. It was very difficult to increase their revenue, and they had mainly been relying on advertisements.

There had been several changes to the app development team, but Lu Zhou, as one of the main shareholders, hadn’t earned any money from it.

However, it wasn’t like Lu Zhou was relying on this app to make him money...

After the two sat down on the sofa, the assistant came over and poured a cup of coffee for Lu Zhou.

Liu Wanshan looked at Lu Zhou, who was sitting across from him, and spoke emotionally.

“Time really flies by quickly. You were still studying at Jin Ling University when we first met. Five or six years have gone by since then, and now, you’re almost an academician.”

Lu Zhou smiled and said, “I’m still far from being an academician, I’m just teaching at Jin Ling University for fun and doing research on some interesting things. I don’t have time to become an academician.”

Lu Zhou wasn’t being overly humble. After all, the academician selection process wasn’t heavily correlated with one’s academic ability. A lot of times, it still depended on whether or not the judges liked the applicant. Lu Zhou wasn’t really interested in this title.

Not to mention, he didn't need the title of an academician to receive funding.

At least in China, a Ling Yun medal was better than any academic title he could get.

Liu Wanshan smiled and said, "You're not far off at all. Next year is the academician-selection year. If even you can't become an academician, then there's no value in the academician title at all."

Lu Zhou smiled and didn't explain anything. He just replied humbly, "You're too kind."

A cup of coffee and a cup of tea.

Neither Lu Zhou nor Liu Wanshan was in a hurry to talk about business.

Even though Lu Zhou had been very busy recently, he still had time to enjoy a cup of coffee.

He learned a lot while chatting with CEO Liu.

For example, the students who worked on the Campus Assistant app with him had moved from Jin Ling to Shanghai, and they expanded their target audience from Jiangsu to the entire country.

Even though the members of the app development team had changed, the roles of CEO and CHO were still held by Yuan Liwei and fat guy Wu. Technical Director Rong Hai had already left after they received their series B financing. Apparently, Rong Hai was now an executive at Penguin, doing pretty well for himself.

Also, the special cement that Professor Li Rongen developed was now used for infrastructure projects in Pakistan, creating billions of yuan in profit.

When the conversation happened to stumble onto business, Liu Wanshan put down the cup of tea and suddenly smiled.

"Oh yeah, speaking of which, how come you're suddenly building space shuttle? Is it profitable?"

Lu Zhou: "Earning money is secondary, it's just my hobby."

“Professor Lu, you’re so ambitious.” Liu Wanshan sighed and said, “Maybe this is why my businesses haven’t made a lot of money.”

Lu Zhou: “You’re too humble, your businesses are worth hundreds of millions.”

“Not quite hundreds of millions, I’m in the materials processing industry. We’re sandwiched between the upstream and downstream of the supply chain. The profits are eaten up by either side of the chain. Even though our cash flow is in the hundreds of millions, we don’t make a lot of money. Otherwise, I wouldn’t have wanted to get into the battery industry.” Liu Wanshan smiled and said, “Oh yeah, Professor Lu, have you heard that China plans on allowing the export of the SG-1 superconducting magnet?”

A while ago, the United States began a large-scale controllable fusion reactor project in California. Due to the trade war tension, the ban on the export of the SG-1 superconducting magnet caused a standstill at the California fusion reactor site, angering the Americans.

Now that the negotiation for the controllable fusion technology had made some progress, the export ban on SG-1 superconducting magnets had been lifted. The orders were flying in from various countries. The patent owners, Baosheng Group and Star Sky Technology, made a lot of money because of this.

Zhongshan New Materials was also in the carbon materials industry, so they obviously wanted a piece of this pie.

Lu Zhou immediately understood his intentions.

“You want a technology license?”

Liu Wanshan smiled and said, “You are correct, I don’t know if you’re fine with it or not.”

Lu Zhou: “I’m fine with anything, as long as you can pass the production qualifications and site confidentiality check. I’ll send people to help you solve the technical problems. However, I don’t like to worry about business matters, so you should talk about the specifics with my CEO.”

Liu Wanshan immediately nodded and smiled.

“For sure, bothering you with boring business talk is a disservice to the entire country!”

Lu Zhou nearly choked on his coffee. He coughed for a bit and put down his coffee cup.

“You’re totally exaggerating.”

“I’m not exaggerating at all, I’m being honest.” Liu Wanshan stood up from the sofa and bowed to Lu Zhou. He said, “It’s getting late, I won’t disturb you any longer. I’ll see you later.”

Lu Zhou: “Yeah, take it easy.”

When did CEO Liu become so friendly?

I guess time really changes people...

After Liu Wanshan left, Lu Zhou returned to his office. He sat in front of his desk and took out a piece of paper and a pen. He began to continue thinking about the problem he discussed with Luo Wenxuan. At the same time, he also wrote some notes.

Suddenly, a text bubble popped up on the lower right corner of the screen.

[Master, the seller has shipped the items. I helped you buy the equipment I need! (๑•̀ㅂ•́)و✧]

When Lu Zhou saw Xiao Ai’s message, he suddenly stopped writing.

You bought it?!

Already?

Lu Zhou didn’t say anything for a while, so another text bubble popped up.

[Compliment me! Do it now! o(*≧▽≦)ツ]

Lu Zhou was muddled as he nodded and replied, “Yeah, thanks for your help.”

How did this thing do it...

If Lu Zhou recalled correctly, buying high-precision industrial equipment overseas, especially the equipment that he wanted, wasn't an easy thing at all.

For example, the "end-user access rights" was a pain in the a*s, the complicated EU foreign export procedures was complicated and messy. Even if he went through a third party country for the shipment, it would take at least two weeks for the whole thing to be sorted.

What Lu Zhou didn't know was that, all the way in Naples, Italy, there was someone else who was just as confused as him.

However, it was another type of confusion...

640 **Finessed**

Italy, on the outskirts of Naples, a black Mercedes drove slowly along a curved, flat road into a small town near the hills.

Horns, who was holding the steering wheel, looked at the rundown streets on the sides of the road. His eyebrows began to furrow.

"Are we in the wrong place?"

"There's no way..." The assistant sitting shotgun repeatedly looked at the document in his hand. He said in an uncertain tone, "Both the shipping information and the Italian Ministry of Commerce points to here."

Horns didn't say anything, but he was getting more and more suspicious.

Honestly, this didn't look like a place for industrial prosperity. Even if someone didn't build a factory near a railway or near the sea, they would at least build it in a relatively densely populated area. Even the most stupid business owner wouldn't open a factory in the middle of nowhere.

The road started to get shorter and shorter.

The car could barely fit on the road.

The two got out of the car and walked along the country road for around fifty meters. They arrived at a rundown street near the community market. The

people living here were mostly farmers or retired elderly. Other than a few children playing around in the alleyways, there wasn't a single sign of youth.

Horns arrived at a brick cottage with his assistant. He stopped, looked around, and raised his eyebrows.

"This is the factory?"

His assistant was also at a loss, and he took out the document again.

An old Italian man wearing a braided hat noticed the two strange foreigners standing at the doorsteps. He walked out of his house and looked at the two men suspiciously.

"Who are you guys?"

"Horns, this is my colleague. My apologies for bothering you. I'm looking for a company called AI Industry. To my understanding, this is the address." Horns said with a friendly smile on his face, which made him look a bit more approachable.

"AI Industry?" The old Italian didn't buy it. He frowned and looked suspiciously at Horns. He said, "I've lived here for many years, and I've never heard of AI Industry. There are no factories nearby."

The moment Horns heard this, he made eye contact with his assistant.

Everything made sense now.

The other party forged their identity. Not only did they deceive the Italian government and Siemens, they even deceived German customs, as well as the EU Import and Export Committee!

He remembered the ongoing controllable fusion technology exchange between the EU and China and couldn't help but break out in cold sweat.

Everything else on the list wasn't important, but if the two machine tools ended up in China's docks, the US would undoubtedly lose leverage over the negotiations.

The two machines couldn't end up in the hands of China, no matter what!

Horns looked at the old man and made a desperate final attempt. He took a deep breath and asked, "Is there anyone near here called Saatche Farbile?"

The batch of equipment only recently arrived in Italy. If it was to sneak out of European waters, it would take a while.

The only clue he had, other than the fact that the other party had an experienced computer hacker, was this name.

As long as he could find Saatche Farbile, he could solve this case!

The old Italian man frowned and shook his head.

"I haven't heard of him before."

Five seconds of silence passed by.

Horns took a deep breath. He was about to thank the old man and walk back to his car when an old woman suddenly jumped into the conversation.

"You guys know Farbile?" [Read more chapter on](#)

The moment Horns heard this, he immediately asked with excitement, "Of course, I'm his friend, may I..."

"You're his friend? Perfect, wait a second."

The old woman turned around and went inside her house.

After a while, he saw the old woman walk out while holding a large parcel.

"A few days ago, a parcel was sent here. The recipient's name is Saatche Farbile. I don't know this person at all, and no one on this street has this name. I was wondering if the delivery man sent it to the wrong address, but I triple checked the address, and it's correct... Since you're his friend, can you pass this parcel to him?"

"Thank you... I'll give it to him."

Horns restrained the excitement in his heart and took the parcel from the elderly woman. He immediately got back into the car with his assistant.

He was about to open the parcel when he suddenly stopped.

His assistant was confused.

“Sir?”

Horns paused for a second and looked at his assistant.

“I need you to do something.”

The assistant hesitated and asked, “What?”

Horns handed him the parcel and spoke in a serious manner.

“Open it.”

The assistant instantly realized what was going on, and his face turned blue.

Even though he wanted to refuse, he still followed orders and took the package. He walked to the side of the road and carefully began to open it.

Fortunately, nothing happened.

There weren’t any explosives in the parcel, nothing that was dangerous.

The assistant looked at the envelope lying inside the parcel and sighed. He took the envelope out of the parcel.

“Sir, there’s a letter in here.”

He opened the letter and pulled out a piece of paper.

However, when the assistant read the letter, it was like he made eye contact with Medusa and froze.

Horns noticed his assistant’s face and thought that there was an important clue written in the letter. He quickly walked over there and grabbed the letter.

“What is it…”

It was almost like Horns had a stroke as he stood there motionlessly.

A string of random symbols was written in the letter.

[âTMa(^â^‡^*)]

Horns: "... ???"

After Lu Zhou asked Xiao Ai how it was able to buy all of the equipment, he went silent for a while.

Seeing how Lu Zhou didn't speak for a while, a text bubble popped up on the lower right corner of the screen.

[Master? 0.0]

"Nothing, I'm just a bit shocked... Oh yeah, you didn't leave any trails behind, right?"

[Don't worry, I already killed the company! (๑•̀ㅂ•́)و✧]

"Oh, good..."

Since there wasn't going to be any evidence left, Lu Zhou stopped asking questions.

After Lu Zhou praised Xiao Ai, he began to search the database for the thesis that Luo Wenxuan mentioned. After he found the thesis and looked at the author, he had a surprised look on his face...

"The thesis author is Arthur Jaffe..."

Arthur Jaffe was the former head of the American Mathematical Society and served as the director of the Clay Mathematics Institute.

He and Edward Witten were the people who proposed the Yang-Mills equations to be one of the Millennium Prize Problems and made the announcement at the Institut de France.

Before this problem was declared as a Millennium Prize Problem, Professor Jaffe had researched this problem for more than a decade, and he was considered a big name in this field.

Janies Glimm was the other thesis author. He was a well-known mathematical physics professor at Harvard University, but still a level below Jaffe.

In any case, this thesis was the life work of these two big names.

Knowing this, Lu Zhou had much more respect for this thesis. He printed the thesis on A4 paper and began to carefully read the content.

Roughly speaking, Luo Wenxuan's interpretation was correct. Even though there were some minor problems, the overall idea matched the thesis content.

"I see..."

Lu Zhou had a hint of excitement in his tone, and he began to write a few lines of equations on a piece of paper.

"By constructing a progressive projection linear operator E_2 on H and project the state in H onto a state less than two particle masses, one can prove that the operator E_2 has a range of values between Ω and $e^{(-sH)}\Omega$, forming a vector space..."

"Then, I can obtain the asymptotic expansion of λ !

"As for the specific value of the mass m ... What exactly is the particle mass m anyway?"

Lu Zhou gently tapped his pen on the paper and scribbled a solid dot on the piece of paper.

Using theoretical physics to find a particle was no easy feat, especially when the particle was made up of massless bricks.

Fortunately, Lu Zhou was a mathematician. He just had to be logically consistent. The problem could be hugely simplified. However, if he had to physically look for the particle himself, that would be nearly impossible.

"The renormalization group equation has to have a fixed subtraction point. Then set all the parameters of the renormalization at this subtraction point... If only I can attach a scalar field on a space-time manifold like the electroweak interaction and solve a problem that way..."

"Wait a minute, fields..."

The pen in Lu Zhou's hand suddenly jerked, and his eyes lit up.

"Quantum Yang-Mills Field!"

Lu Zhou spun the pen in his hand as his eyes flashed with excitement.

Goddamn it!

Why didn't I think of this before?

...

No matter how interesting mathematics was, everyone still had to eat.

After all, Lu Zhou couldn't stay up all night on an empty stomach.

Lu Zhou went to the cafeteria at night.

Unfortunately, the cafeteria at the Jinling Institute for Advanced Study didn't serve authentic BBQ meat and rice. Lu Zhou happened to bump into Wang Peng, so he ordered three dishes and a bowl of soup before sitting down with Wang Peng.

Wang Peng walked over holding two bowls of yellow bean soup and handed one of the bowls to Lu Zhou. He opened the disposable chopsticks and asked, "You seem busy recently?"

Lu Zhou: "Kind of... How do you know?"

"From experience."

"Experience?"

Wang Peng smiled and said, "You go to university more often when you're not busy. But when you're busy, you would stay longer at the Institute for Advanced Study. If you get even busier, you won't even leave your house."

Lu Zhou paused for a second and smiled. "You really are from the special military force."

Wang Peng smiled and said, "This doesn't have a lot to do with special forces, just like experience."

"I don't think most people have your type of life experience."

While the two were chatting, Lu Zhou's phone in his pocket suddenly began to ring.

He took out his phone and saw the call was from Chen Yushan, so he put down his chopsticks and stood up.

“I have to take this call.”

Lu Zhou picked up the call and walked to the side.

The second the call connected, Chen Yushan’s voice traveled through the phone.

“The chairman of Zhongshan New Materials went to find you?”

“Yeah, why?”

Chen Yushan was suspicious, and she said, “Baosheng Group is exporting SG-1 superconducting materials, which is owned by China Airlines. Why the hell is a private company like him trying to get in on this?”

Lu Zhou: “Is there a problem?”

Chen Yushan: “Not exactly a problem. As long as the company can pass the confidentiality check and production qualification check, there aren’t any problems. However, this type of business is heavily affected by government policies, and it might seem profitable now, but what about later? The worst thing a small company can do is try to diversify. They’re already producing battery materials, now they’re investing in SG-1. This isn’t a good thing.”

Star Sky Technology had a 15% stake in Zhongshan New Materials. In some sense, the interests of Zhongshan New Materials aligned with the interests of Star Sky Technology. Therefore, even though Star Sky Technology had normal voting shares, Chen Yushan still had to watch what Zhongshan New Materials was doing.

“You know more about business than me, just do what you want.” Lu Zhou paused for a second before adding, “However, Liu Wanshan helped me a lot in the past, so it’d be best if we can help him.”

Lu Zhou didn’t really care about how much money he could earn. Whether Baosheng Group had exclusive market shares or that there were other companies, Star Sky Technology’s patent licensing fees were charged by production amount, so it wouldn’t make a huge difference.

Since CEO Liu really wanted to enter this market, Lu Zhou obviously wouldn't stop him.

However, any type of new business venture was risky.

Since CEO Liu had done business for so long, he was definitely well aware of this.

Chen Yushan jokingly said, "I didn't expect you to be a sentimental person."

Lu Zhou smiled and said, "Isn't everyone like this?"

"Not necessarily."

Lu Zhou: "Then what type of person did you think I was?"

Chen Yushan couldn't help but smile and said flirtatiously, "An apathetic person."

"Apathetic person?"

Lu Zhou went silent for two seconds, and Chen Yushan continued to speak, "Yeah, I still have a meeting to attend. You're probably busy, so I'll stop bothering you... Oh yeah, in the second half of this year, I plan on moving the headquarters of Star Sky Technology to Jinling. It's easier to communicate with you then. What do you think?"

Lu Zhou: "I'm fine with anything... What about employees?"

"Some will stay in Shanghai, some will come here. It's not like we're disbanding the Shanghai office."

Lu Zhou nodded and replied, "Okay then."

Virginia, CIA headquarters.

Yelling sounds were heard inside the director's office, and the office windows nearly shattered from the yelling.

"A bunch of useless idiots! How did the equipment just slip away?" The CIA director slammed the report from Europe on his table and screamed, "Three whole shipping containers! Three! You're telling me you can't find it?"

Jared, director of CIA European affairs, had an awkward expression on his face as he looked down and whispered quietly, "Sir... This matter is a bit complicated."

The director said angrily, "Complicated? All of our cases are complicated!"

James quickly said, "According to the latest intel from Agent Horns in Italy, we still aren't sure where these pieces of equipment are being shipped to, so it might not be China..."

"Do you think I'm stupid? What other countries could possibly want these pieces of equipment urgently?"

Jared thought, Of course you're stupid.

However, Jared decided to keep his thoughts in his mind.

He lowered his head and tried to be honest.

"But I..."

"Don't give me buts!" The director controlled his anger and sat down on his chair. He drank some water and said, "Where is the investigation at now?"

Jared looked at the director and carefully arranged his words before he said, "We tried to find the Italian named Saatche Farbile, but we can't find him. We suspect that it was a forged identity."

The director said, "The parcel... What about the parcel address? The parcel is the key! We can backtrack the postal system and find these criminals!" He thought back to ten minutes ago when he threw the crunched up paper with weird characters written on it, into the trash can. This made his blood boil.

In his opinion, these criminals were trying to insult him!

Not just him, but it was insulting the entire CIA!

"Sir?"

The director looked at Jared and frowned.

“What now?”

“The method you suggested... We have already thought about it, and we found the mailing address of the parcel through the DHL transshipment system. The final address points to French Guiana. We contacted the agents in South American and found the person who sent the package. It was a young man who was still in high school, and he said that he didn’t know who Saatche Farbile was at all. Someone sent him an email and said that he would receive €100 if he shipped the parcel.”

The director immediately asked, “What about the email address?”

Jared had a painful look on his face.

“The email address doesn’t exist anymore.”

Everyone went silent.

The director sighed and pinched his eyebrows. He didn’t say anything for a long time.

Jared looked at the director and whispered, “Sir?”

“What?”

“What... do we do now?”

“I don’t know, don’t ask me.” The director reached out and picked up a document from his desk before saying, “This is a huge mistake. This will seriously impact the ongoing controllable fusion negotiations... F*ck, what do I say to the president...”

...

While half of the western intelligence agencies were in a chaos because of the missing equipment, the containers that contained the equipment had already traveled through the Panama Canal, through the East China Sea, and docked at the port of Haizhou.

Jinling Institute for Advanced Study.

Lu Zhou came here in the morning and went to the Institute of Physics with a copy of the thesis.

When Lu Zhou arrived at the director's office, Luo Wenxuan was standing next to the coffee machine waiting for the water to boil while reading the documents in his hands.

Lu Zhou knocked on the door and placed the stack of documents on the table. He said, "I have carefully read through the thesis, I think it's a good idea."

"I think so too... The main part is the value of m ." Luo Wenxuan poured himself a cup of coffee and looked at Lu Zhou. He asked, "Do you want one?"

Lu Zhou: "No, thanks... I prefer instant coffee."

Luo Wenxuan put two sugar cubes into his cup and shook his head. He said, "Instant coffee is soulless."

Lu Zhou: "...Read more chapter on

Luo Wenxuan walked to his desk and looked at the thesis that Lu Zhou brought, which was full of Lu Zhou's written comments. He took a sip of the coffee before asking, "What do you think, do you have any ideas?"

Lu Zhou: "Some."

"Pfft!"

Luo Wenxuan spat a mouthful of coffee onto his computer. He started to cough while he quickly took a piece of tissue and wiped down the thesis.

Lu Zhou was stunned. He frowned and asked, "Are you really that excited?"

"Not excited! No, actually I am." Luo Wenxuan took a deep breath and tried to calm down. His voice went up a notch as he said, "You're saying, you have an idea?"

"Yeah." Lu Zhou nodded and looked at the blackboard as he said, "Do you want me to explain it?"

Luo Wenxuan: "Please tell me if you can!"

“Of course I can, it’s not like this problem can be solved by one person alone, I need your help.” Lu Zhou picked up a piece of chalk from the desk next to him and wrote down a line of words on the blackboard.

Luo Wenxuan stared at the line of words for a long time with his eyebrows slightly furrowed.

“Quantum... Yang-Mills Field?”

“Yes.” Lu Zhou nodded and said, “The Higgs mechanism and the Yang-Mills Field have been successfully applied to explain the electroweak interaction part of the standard model for quantum field theory. However, the strong interaction part of the Yang-Mills theory can’t be solved just by using symmetry breaking. Do you know what I mean?”

Luo Wenxuan’s eyes gradually lit up. He could only manage to say one word.

“So...”

“Yes,” Lu Zhou nodded and said, “you probably already know what I’m about to say. In order to solve this problem, we have to set a quantum field that corresponds to the aforementioned problem, namely the Quantum Yang-Mills Field.”

If they could construct a Quantum Yang-Mills Field, they could easily find the particle mass m , and the massless problem of the strong interaction would undoubtedly be solved.

Lu Zhou was about to further explain his ideas when his phone that was in his pocket suddenly began to ring.

Lu Zhou put down the chalk and took out his phone.

He saw the caller ID and paused for a second.

State Administration for National Defense?

Lu Zhou was puzzled. He picked up the call and put his phone next to his ear.

Luo Wenxuan walked to the side and drank his coffee while sitting on the sofa. He quietly waited for Lu Zhou to finish his call.

Five minutes went by.

The call finally ended.

Lu Zhou put his phone into his pocket and looked at Luo Wenxuan.

“How come I’m in trouble every time I talk about problems with you?”

Luo Wenxuan paused for a second and smiled.

“I don’t know... It’s probably fate.”

Lu Zhou: “...”

Lu Zhou wasn’t happy at all.

However, he wasn’t in huge trouble.

While the negotiations with Western Europe were still going on, no one thought that the treasures would be buried on a ship full of corn. When the machines were dug out from the pile of corn, the customs staff were surprised, to say the least. They immediately reported this news to the superiors.

Because this was an important matter, the news was reported all the way to the State Administration for National Defense.

Because the defense agency had to contact two engineers from Shenyang Machine Tool to inspect the machines, the rumors began to spread to the public.

There were several major machine tool manufacturers in China, mainly Shenyang Machine Tool, Qiqihar Heavy CNC Equipment Corporation, and BYJC Machine Tools. They occupied a significant amount of China’s machine tool market, and everyone was aiming to manufacture high-end machine tools.

The problem was that every company wanted to improve its product, and they were all confident that they could reverse engineer this high-end exported machine tool. However, there were only two machine tools, which was not enough for everyone to get a piece.

Therefore, when Shenyang Machine Tool chief engineer Academician Yang Zhongquan heard about the news, he skipped his lunch break and went on a flight with his colleague Secretary Wu.

The two sat on the couch in the lounge of Jinling Institute for Advanced Study.

Secretary Wu looked at the door and lowered his voice.

“Mr. Yang, the machines are very important for our factory. We have to try and get one in our hands, preferably both.”

Yang Zhongquan took a sip of the tea. His expression didn’t change at all.

“Of course.”

Suddenly, the door opened, and the two immediately stopped talking.

Lu Zhou greeted the two and sat across them on a sofa. He looked at them and asked, “You two came all the way to see me. I’m curious, what do you guys want?”

Yang Zhongquan was about to speak, but Secretary Wu coughed and took the initiative. Secretary Wu looked at Lu Zhou and said, “We know you’re a busy person, so I’ll get straight to the point. Did you buy the machines?”

Lu Zhou: “Yes.”

Honestly, Lu Zhou was surprised.

The person that arranged a meeting was one of the State Administration for National Defense executives. However, these two corporate businessmen came instead.

Secretary Wu asked, “How much money did you spend?”

The price wasn’t anything worthy of keeping a secret, so Lu Zhou replied casually, “Around €20 million.”

“Only €20 million?” Yang Zhongquan was in disbelief. He looked at Lu Zhou with a curious expression and immediately asked, “Where did you get it?”

According to his experience, if someone in China wanted to buy a high-end machine like that, they would have to transfer it using a third-party country,

and the price would often double or more. €20 million was a good deal for this type of machine.

Not to mention, this wasn't even the main point.

It would be difficult to buy the latest industrial machine tools for three times the normal price, especially the machine tools used for aircraft engine production. First of all, the middleman in the third-party country wanted to make a profit, but they didn't want to take on too much risk. Secondly, companies in Europe had a strict qualification review process and end-user license agreements. After all, this could impact their market competitiveness, and everyone knew that Chinese companies often ignored rules and regulations.

It would be much more valuable to know where these two pieces of machinery came from, than to buy them off Lu Zhou's hands.

Yang Zhongquan and Secretary Wu were thrilled. They couldn't wait to find out how Lu Zhou was able to get these two pieces of machinery in the country.

However, Lu Zhou, who was sitting across from the two, felt a little uncomfortable.

The tone of the pair made Lu Zhou feel a little unpleasant. Not to mention, this wasn't something that Lu Zhou should disclose so easily.

Lu Zhou leaned on the sofa and wasn't as polite as before.

"I met some friends during my study abroad. I just asked for a favor. What? Do I have to report my friends' favors?"

The atmosphere in the room suddenly became tense.

Secretary Wu looked at Lu Zhou's expression and realized something was wrong.

Lu Zhou looked very young, so Secretary Wu subconsciously spoke in an authoritative manner. He was about to speak in a more polite manner to salvage the conversation, but Yang Zhongquan spoke first.

Yang Zhongquan looked at Lu Zhou for a while and waved his hand.

“Forget about it, I don’t care where the machines came from. I’ll pay you €20 million, and you’ll give us the machines.”

When Lu Zhou heard the old man’s demands, he frowned.

“I don’t plan on selling.”

Yang Zhongquan stared at him and said, “Do you even know what you bought?”

Lu Zhou said, “Two high precision five-axis linkage machine tools from Siemens?”

These two were the most expensive pieces of machinery in the equipment batch. Due to its high precision, it was even more expensive than six or seven-axis linkage machine tools.

Yang Zhongquan snorted and leaned on the sofa.

“Good, so you know.”

Lu Zhou couldn’t help but smile at Yang Zhongquan’s face.

“What happens if I don’t sell it to you?”

Yang Zhongquan said, “This concerns national security. I hope Professor Lu can think of the bigger picture. Otherwise, there will be consequences.”

Seeing how these two were about to get into an argument, Secretary Wu felt anxious. However, he didn’t have an opportunity to speak. He could only stare at Yang Zhongquan with a desperate look in his eyes.

However, Yang Zhongquan was still furious. He didn’t care about Secretary Wu.

Lu Zhou looked at the old man’s face and smiled. He took out his phone from his pocket and dialed a number.

“Oh, Regiment Commander Dai? Do me a favor.”

Regiment Commander Dai had immediately picked up the call when he saw Lu Zhou’s name on the screen. “Sure, anything you want.”

“There’s a batch of equipment at the Haizhou port. It contains state secrets, so can you please send it to the Jinling Institute for Advanced Study.”

“Okay.”

A total of four sentences were exchanged over the phone.

Yang Zhongquan’s eyes widened. His face turned bright red as he pointed his finger at Lu Zhou.

“You! Do you know what the hell you’re doing?!”

“I do.” Lu Zhou stuffed his phone back into his pocket and smiled. He said, “But it’s a state secret, so I can’t tell you anything.”

Do you think I’m scared of you?

The army was quite efficient.

The phone call was made in the morning and the delivery truck arrived at the Institute for Advanced Study in the afternoon.

These two engineers came all the way to Jinling only to look at these three untouchable shipping containers. Yang Zhongquan was enraged; he almost wanted to skin Lu Zhou alive.

He couldn’t help but question Lu Zhou, “Why the hell would you need high precision machine tools for your tiny laboratory. Are you building a particle collider or something?”

Lu Zhou replied impolitely as well, “Then why the hell would you need high precision machine tools for your factory? Are you going to disassemble them and play with them like Lego?”

Yang Zhongquan nearly vomited blood.

Wang Peng was standing nearby watching this unfold. He wanted to persuade Lu Zhou to calm down, but he didn’t know what to do. Therefore, he decided to keep his mouth shut.

In the afternoon, the executives from the State Administration for National Defense finally came over.

A black sedan parked at the front entrance. Director Li quickly got out of the car. He and Lu Zhou went into another lounge.

“Professor Lu, that batch of machines is very important to us.”

Lu Zhou smiled and said, “Is aerospace not important?”

“No, that’s not what I meant. Aerospace is the future of China, of course it’s important from a long term perspective, it’s very important! Not to mention, you’re the chief consultant of the moon landing project, so I understand what you’re feeling!”

Lu Zhou sipped his coffee and didn’t say anything.

Director Li sipped some tea to moisturize his throat. He then said with a sincere tone, “But you also know, that in addition to long term issues, we also have to think about the short term. Our industrial revolution began late, thus we’re more than 15 years behind from the Germans and the Japanese. Especially in key areas of national defense like engines and submarines. There’s still a big gap between us and the western countries.”

Chinese machine tools had their own advantages, such as being relatively low cost, which almost made foreign low-end machine tools unprofitable. However, when it came to high-end machine tools, whether it was processing precision or failure rate, Chinese machine tools were no match with international industry giants.

Since China desperately wanted to improve its manufacturing industry, it had to focus on obtaining higher quality machinery.

For example, some Chinese manufacturers that needed high precision manufacturing machines would usually choose to import machine tools and nano-precision CNC machines. Since the west had the machines, the west had all the leverage. Not only did the Chinese have to pay huge prices, but they also had to deal with the horrible “end-user access rights”. Therefore, the companies that were involved in sensitive technology didn’t even dare to use imported machine tools.

Therefore, the cutting edge industrial technologies were also placed on the controllable fusion negotiation table.

After Lu Zhou heard Director Li's explanation, he nodded.

He wasn't a stingy person. He just didn't like the attitudes of the other two men.

He just wanted to have a normal conversation.

Lu Zhou was a reasonable person.

Seeing how Lu Zhou seemed to calm down, Director Li continued to speak sincerely, "I know it's difficult for you to buy these two machine tools. I hope you can give us one of them. Of course, we won't just take it from you. Tell me how much you bought it, and we'll buy it at triple the price. If you have any other requests, feel free to tell me."

Lu Zhou smiled and said, "There's no need to pay me triple the price, I didn't buy this thing to make money."

Director Li said, "Then is there any matter regarding the policy that we can help you?"

Lu Zhou thought for a bit. His eyes suddenly lit up as he said, "The domestic spaceports are quite far from Jinling. After I build the space shuttle, transportation might be a little difficult."

Director Li began to sweat from his forehead.

"Are you implying..."

Lu Zhou smiled and said, "If only the spaceport can be a little closer..."

Director Li said with a headache, "That's impossible! Even if we agree, the local government wouldn't agree. Not only is this about confidentiality, but this also concerns the surrounding geographical environment, as well as other safety and meteorology factors. This isn't just something we can approve of."

Lu Zhou coughed and said, "You're misunderstanding me. I don't need spaceports like the ones in Jiuquan or Xichuang. I just need a small spaceport to launch a space shuttle."

Space shuttles were different from rockets, especially since Lu Zhou planned on reverse-engineering the Debris No.3 Hall-effect thruster, which was much more environmentally friendly than normal chemical rockets.

Director Li shook his head and said, "That won't work either!"

Lu Zhou slapped his thigh and was about to leave.

"Okay then, I'll talk to you about the machines some other day. I'll write a letter about the spaceport to the big man."

When Director Li heard that Lu Zhou was going to write a letter to the president, he anxiously said, "Don't need to write a letter, don't bother the big man with these little matters."

Lu Zhou said in a serious tone, "Aerospace engineering is one of the country's main national strategies, how is this a little matter?"

Director Li: "..."

The room was silent for five seconds.

Director Li sighed and said, "I can't give you any promises. To be honest, this is out of my control. However, I will try my best to find a way to coordinate with the relevant departments to help you solve this problem."

Director Li contemplated in his mind.

If Lu Zhou only wanted to launch a space shuttle and not a high-powered rocket, a small spaceport would work fine. The spaceport just had to be away from the urban area, and they had to ensure that the launch path didn't pass through any densely-populated areas.

After all, Jinling was different from Shanghai. There was plenty of land on the eastern side.

If Lu Zhou really didn't need to launch rockets, a small scale spaceport should do the job.

Since Director Li didn't immediately refuse, Lu Zhou knew that this plan might work. He smiled and said, "Then thank you, Director Li."

Director Li waved his hand and said politely, "You're welcome, I'm happy to help scientific researchers like you."

Lu Zhou: "Oh yeah, one more thing."

Director Li: "What?"

Lu Zhou: "The machines are already here. After the inspection, you guys can take one."

Director Li thought for a bit and immediately knew what Lu Zhou was talking about, so he smiled and replied, "Good idea."

Lu Zhou nodded at Director Li.

Lu Zhou was a mathematician. He didn't want to deal with these sleazy businessmen, nor did he want to offend anyone. Now that Shenyang Machine Tool heard about the rumors, other companies would follow suit and try to buy the machines off him.

It would be better to just give the machines to the State Administration for National Defense, and let the companies contact them instead.

Yang Zhongquan was standing in the research institute warehouse. When he saw Lu Zhou and Director Li smiling, he guessed that the two had reached a consensus. So he stood there and didn't say anything, nor did he look at Lu Zhou.

Obviously, he was still angry about what happened.

Director Li walked to Yang Zhongquan and smiled.

"Let your engineers inspect the two machines first."

Yang Zhongquan nodded and waved at the two engineers standing next to him.

The two engineers excitedly walked over to the two five-axis linkage machine tools, which were placed in the middle of the warehouse. They carefully began to tinker with the machines.

Lu Zhou was bored, so he took out his phone and began to read some theses.

Yang Zhongquan saw the theses on Lu Zhou's screen and looked away. The mathematics symbols gave him a headache.

Five minutes went by.

The engineers who were inspecting the machines suddenly looked worried.

"There's a problem with this batch of machines," said one of them.

Director Li's heart rate dropped, and he immediately asked, "What's the problem?"

The engineer's face was white as he replied hesitantly, "The CNC system... isn't installed yet."

The CNC system isn't installed?!

Other than Lu Zhou, everyone else in the warehouse was stunned.

Secretary Wu from Shenyang Machine Tool sighed. He took out a cigarette from his pocket and walked out of the warehouse. Director Li from the State Administration for National Defense stared at the two machines silently. His eyes were filled with disappointment.

Yang Zhongquan almost looked like his lottery ticket was stolen. He shook his head and sighed.

"CNC system hasn't been installed... I knew there is no such thing as a free lunch."

In the beginning, he didn't understand how Lu Zhou was able to use €20 million to buy this batch of equipment since the two machine tools alone were worth more than that. However, he finally understood why. It turned out that Lu Zhou bought a "soulless version".

Lu Zhou stared at everyone and quietly asked, "Isn't it just the control system?"

He didn't think this was a big deal at all...

However, he didn't expect to piss off the engineers surrounding him.

Especially Yang Zhongquan; he couldn't help but berate Lu Zhou.

"Do you know what the CNC system even does?"

Lu Zhou: "..."

Lu Zhou was a mathematician; he didn't know a lot about machinery control systems.

But even then, he didn't think this was a big deal.

When Director Li saw that these two people were about to get into an argument again, he coughed and tried to act as the peacemaker.

"This machine tool is quite special. There's the software part and the hardware part. The hardware is simple. It involves materials, hydraulics, pneumatic components, bearings, servo motors, etc. Every part of the machine affects its accuracy. As for the software, that determines whether the hardware can be used in actual production."

Lu Zhou nodded and kind of understood what was going on.

"The software is the CNC system?"

Yang Zhongquan sneered.

"No sh*t, Sherlock, what now, do you plan on manually controlling the machine?"

Relatively speaking, industrial machine tools didn't require high-end computer chips. However, they were highly dependent on CNC system algorithms. To achieve the highest degree of accuracy, an excellent machine tool had to be combined with an excellent CNC system.

According to the report from the European Association of the Machine Tool Industries (CECIMO), it clearly stated that the main competitors of the European's machine tool industry were Japan and Asia, while Japan and Europe were around the same level. China's machine tools had the advantage of being cheap, and their technology was gradually increasing. However, China was still behind Europe and Japan.

One of the reasons was because the Chinese produced machine tools by using imported CNC systems, such as systems from Japan. Not only did this

add to the cost, but it also caused China to fall behind in terms of machine tool software.

Now that the machine tools were here without a control system, even though they weren't completely worthless, their values were halved, at the very least. Also, it was halved for the companies that planned on reverse-engineering the machine tools. For the companies that planned on using these machine tools, these were worthless.

When Yang Zhongquan saw Lu Zhou silently standing there, he thought Lu Zhou was distressed over wasting money, so Yang Zhongquan began to gloat.

"You might as well sell both of the machine tools to us, they're useless for you anyway. Might as well melt them down and recycle them. Don't worry, we'll still pay you €20 million."

Lu Zhou ignored him. He looked at Director Li and asked, "Can't we just buy a system and install it?"

Director Li shook his head and said, "It's difficult. If you bought it through legitimate channels, it would be fine, but this... is a bit difficult."

Lu Zhou instantly realized what the director was talking about.

The main part was that these two machine tools were considered "illegal goods". Everyone around the country was trying to look for these two machines. It wasn't as if Lu Zhou could knock on Siemens' door and just ask for a system?

Especially since the controllable fusion energy negotiations were still going on, he couldn't do anything that would affect the negotiations.

As for installing a Chinese CNC system...

It would be useless, Chinese systems were no match for this monster.

Lu Zhou looked to the side.

"I'll find some engineers and try to figure it out."

Yang Zhongquan couldn't help but say, "Ah, if you can figure this machine tool system out, I'll eat this machine."

“Okay, I’ll remember that.”

Lu Zhou didn’t bother arguing with him, he didn’t have the time nor did he care.

Director Li shook his head.

Old engineers with a bad temper like this couldn’t be stopped. Lu Zhou, on the other hand, was quite easy-going. However, that was based on the premise that the other party was also polite.

After all, Lu Zhou was an internationally-renowned scholar. Even though he wasn’t a machine tool expert, Yang Zhongquan should be a little more respectful.

Overall, the customs office did a bad job. Not only did they forgo telling Jinling Institute for Advanced Study about the arrival of the equipment, but they also didn’t immediately report this to the higher-ups. Instead, they quickly contacted engineers from the industry for inspection.

In any case, Yang Zhongquan and Lu Zhou were two pillars of the country.

Even though this was out of Director Li’s control, he still hoped that these two could be on good terms...

Most people in the warehouse left, leaving two engineers and a few Institute for Advanced Study security guards behind. One of the machine tools was going to be moved to another warehouse, while the other one was going to be taken away from the State Administration for National Defense.

Secretary Wu stayed with Director Li. Yang Zhongquan, on the other hand, obviously didn’t care about this anymore. He went into his car and got back to his hotel.

As for Lu Zhou, he didn’t waste any time here either. After he told the research institute about the situation, he went back to his office and began to research the Yang-Mills existence and mass gap problem. When the sun was setting, he went downstairs to the cafeteria for some dinner.

Wang Peng sat across from Lu Zhou and casually asked, “This is bad, right?”

Using his chopsticks, Lu Zhou picked some meat into his bowl of rice as he said nonchalantly, "It's not bad at all, they're just overreacting."

Wang Peng looked at Lu Zhou and said, "But... the chief engineer from Shenyang Machine Tool said that there is no CNC system? That system is important, right?"

Even though Lu Zhou wasn't an expert in machine tools, he was vaguely familiar with hardware and software interactions.

However, Lu Zhou still looked carefree as he continued to gorge on his food.

"Their opinions don't matter. I'll find an expert and talk with them."

The expert that Lu Zhou referred to was obviously Xiao Ai.

In the evening, a flat AGV followed Lu Zhou into the warehouse where the equipment were stored. It strolled around the warehouse for a few laps. Lu Zhou was about to ask what it was doing, but his phone began to vibrate.

[Where is my machine tool? It was just here a second ago. (°—° ")]

The AGV spun in a circle on the warehouse floor; the circle was approximately the size of the equipment.

Lu Zhou looked at the message on his screen and felt a bit apologetic. He scratched his cheek and muttered, "Oh, the other one was borrowed by someone else."

The AGV suddenly stopped.

After a while, a message appeared on his phone screen.

[: (]

Lu Zhou coughed and said, "There's no point sulking. There's only one left, just deal with it... Or I can give you some money and you can go buy another one."

Xiao Ai: [It's very difficult to buy another one using the same method. ☹]

Lu Zhou: "..."

The same method wouldn't fool the intelligence agencies a second time.

They would have to make do with just one machine.

Exchanging one machine tool for a nearby launch site was a good deal. Not to mention, one machine tool should be enough. It would just take longer.

Lu Zhou paused for a second.

"Xiao Ai, do you know there's no CNC system in the equipment you bought?"

Xiao Ai: [Why does it need a system? Can't I just learn how to use it? 0.0]

Lu Zhou: "..."

Even though Lu Zhou wanted to criticize Xiao Ai, he didn't know what to say.

However, Xiao Ai did make sense. After all, it was able to build a Transformer replica model with normal industrial tools. So, it should be able to operate high-precision tools with no problem.

Even though Lu Zhou believed in Xiao Ai's abilities, he still asked Xiao Ai just in case, "You're not going to ruin the machine tool, right?"

Xiao Ai: [I won't, I'll be careful.]

Lu Zhou: "Then please, learn how to use it..."

Xiao Ai: [Okay, Master, I got this! (๑•̀ㅂ•́)و✧]

...

The next day, a truck from the State Administration for National Defense drove to the Institute for Advanced Study.

A group of people came to the warehouse. They were ready to retrieve the machine tool.

Lu Zhou walked over and ignored Yang Zhongquan. He looked at Director Li and said, "I found someone to install the CNC system."

When Director Li heard this, he nearly dropped his cigarette.

However, before he could speak, Yang Zhongquan smiled and said, “Oh, really now? Who did you find?”

Lu Zhou said, “State secrets.”

Yang Zhongquan thought that Lu Zhou probably installed some fake sub-par system. He gently tapped his cigarette and glanced at the machine tool.

“Let’s give it a test then.”

Lu Zhou: “Sure, what kind of test?”

Yang Zhongquan tapped his cigarette and casually said, “I’m not going to make it too difficult, just make an S-shaped test piece.”

An S-shaped test piece was a machine tool testing standard, which was proposed by several experts from the Academy of Engineering. It was first proposed in a patent and played a special role in testing five-axis linkage machine tools. It was used in various machine tool factories across the country.

The S-shaped test piece was the only Chinese-created ISO test standard for high-end machine tools. Prior to this, the ISO standard was made by countries such as Germany and Japan.[Read more chapter on](#)

Therefore, the S-shaped test piece was one of China’s great machine-tool-related inventions.

As an academician at the Academy of Engineering and the chief engineer of Shenyang Machine Tool, Yang Zhongquan obviously participated in the S-shaped test piece design. It wasn’t an exaggeration to say that with his experience, he could tell the quality of a machine tool just by touching the S-shaped test piece.

Lu Zhou: “...?”

What the hell is the S-shaped test piece?

However, Xiao Ai understood what was going on.

Lu Zhou walked to the control terminal and pretended to press some buttons. He then pressed the start button.

After the start button was pressed, it was like a beast was awoken inside the warehouse. The tool connected to the spindle began to rotate at a high speed. It was like an avalanche was happening on the solid block of metal as large amounts of metal debris were peeling off.

Yang Zhongquan frowned when he saw this, and he squinted.

This is at least spinning in the tens of thousands of RPM range.

This doesn't seem right.

High-speed cutting had obvious advantages. It reduced the cutting force and the deformation from the thermal stress on the product. It also improved the rigidity of the thinly-cut parts, and the final product had a higher degree of quality.

However, the disadvantages were fatal. High-speed cutting might break the tool or even melt and burn off the machinery components.

Normally, high-speed cutting had to be paired with a corresponding feed rate, and both of them had to be within a certain range. This was so that the machine's accuracy and lifespan on the tools were optimized.

The quality of a CNC system was reflected in this system.

If a poor machine tool broke down during operation, the blame wasn't entirely on the machine tool itself. At least half of the blame was on the CNC system.

Of course, Yang Zhongquan was surprised at the machine for maintaining such a high cutting speed.

However, this wasn't anything special. A lot of machine tools with imported ceramic bearings could cut at high speeds, much less a five-axis linkage machine tool from Siemens.

The key to a reliable machine was the final product.

If the machine couldn't produce the final product or if the final product had a defect, then the cutting speeds wouldn't matter.

Yang Zhongquan thought about this and felt a little more comfortable.

Lu Zhou was standing next to the control terminal. He didn't really know what was going on, so he took out his phone and began to read a thesis from where he left off last night. Around ten minutes later, the rotating tool stopped and an S-shaped piece of metal was presented on the workbench.

The engineers standing nearby all looked shocked.

Done?

Already?

Lu Zhou put his phone into his pocket and smiled at Yang Zhongquan.

"I think it's done."

"I know."

Yang Zhongquan frowned and walked toward the machine tool.

He stood next to the machine tool with his eyebrows furrowed.

He extended his finger and touched the S-shaped test piece.

It's warm!

Lu Zhou looked at him and didn't know what he was doing. He smiled and said, "Is it too hot? Maybe blow on it a little."

Yang Zhongquan didn't care for Lu Zhou's ridicule. He flipped over the S-shaped test piece and rubbed his thumb on the curved surface of the metal test piece.

His facial expression totally changed.

Yang Zhongquan's hands trembled slightly while holding the S-shaped test piece, and he stuttered, "W-Who installed... this system for you?"

Yang Zhongquan stared at the S-shaped test piece in his hand. He was in disbelief.

One shouldn't estimate this small S-shaped metal sheet. The surface of the metal object followed a spline function, which was generated by using a control point spline. This was very similar to the shape of aircraft wings.

Because of the twisted S-shape, the curved surface was at an acute angle with the base, therefore only a five-axis linkage machine tool could produce a shape like this. Also, the feed rate had to be changed several times during the machining process. This was a test of the performance of the machine.

Therefore, what reflected in the final S-shaped product wasn't only the machining accuracy, but also the force, heat, vibration, noise, and other error factors.

Yang Zhongquan didn't know what the control system for this machine tool was, but his intuition told him that it would be difficult to achieve this level of accuracy even if Siemens tailored a CNC system for this machine tool.

Lu Zhou saw Yang Zhongquan's expression and knew that Xiao Ai's performance was too good. He didn't know how to explain himself.

However, he thought...

Why the f*ck do I need to explain myself?

I don't need to explain anything!

Therefore, he casually made up a reason.

"I met a few friends while studying in Europe, and some of them were experts in this field. I was told that he was working on a machine tool control system based on neural networks and machine learning..."

"This is impossible!" Yang Zhongquan's eyes went wide open. "The application of the neural networks and machine learning algorithms on machine tools has been researched before, but it is all theoretical. There aren't any examples of algorithms being able to improve the accuracy of machine tools..."

Lu Zhou used his chin to point toward the machine.

"The example is right in front of you."

Yang Zhongquan went silent for a while.

“Who is your friend?”

Lu Zhou said, “I’m not telling you.”

Yang Zhongquan: “...”

Secretary Wu: “...”

Director Li: “...”

The atmosphere in the warehouse was a bit awkward.

Lu Zhou didn’t want to end things on a bad note, so he looked at the engineer, then at Yang Zhongquan. He continued to speak, “I can’t tell you where I got the system, but if you want to buy it, I might consider selling it.”

Yang Zhongquan said, “Your CNC system is compatible with other machines?”

“Of cour... I don’t know.” Lu Zhou suddenly changed his reply. “But whatever machine you want to install the system on, bring it over here, and I’ll find someone to see if they can install the CNC system on it.”

Yang Zhongquan didn’t ask who. After all, he knew that Lu Zhou wouldn’t tell him. He asked, “What about the price?”

Lu Zhou didn’t have a sense of money, so he said, “Don’t bring me a low-end machine tool, I don’t have the time for that. I’ll only tailor CNC systems to high-end machine tools. A million per machine.”

Before Yang Zhongquan could speak, Secretary Wu quickly said, “Deal!”

Lu Zhou: “...”

Did I ask for too low?

...

During dinner time.

A group of people sat in front of the dinner table, laughing while eating.

After some drinking and eating, it was getting late. Secretary Wu whispered to Director Li, who was sitting next to him.

“Director Li, can you find out who is making the systems? Chinese machine tools are always of poor quality. If we find this person for help, I am certain that Shenyang Machine Tool will be the top machine tool manufacturer in the world!”

Even though this sounded like an exaggeration, after Secretary Wu saw the quality of the S-shaped test piece, he was totally confident about it.

The domestic CNC system field desperately needed talents, and to let a huge talent like this stay in a research institute was painful for Secretary Wu.

Director Li didn't say anything. He just smiled and looked at him.

Even though he was drinking, he wasn't drunk yet.

After a while, he said, “The person wants to stay in the Institute for Advanced Study, so let's just leave them alone, okay? Do you have to have them work in your company? Paying them to design systems for you is the same thing, right? The economy has changed, so try to keep up with the times. You're doing business with another entity, stop trying to get me involved.”

Director Li sounded like he was criticizing Secretary Wu.

Secretary Wu smiled and tried to explain.

“I just don't want good talents to go to waste.”

Director Li smiled and shook his head. “Then talk with Professor Lu, see if he wants to cooperate.”

Secretary Wu shut his mouth.

Lu Zhou was the chief designer of the controllable fusion project and was now the chief consultant of the moon landing project. He had made great contributions to the country. Lu Zhou didn't have time to meet with guys like him.

If it wasn't for the State Administration for National Defense, Lu Zhou wouldn't have met with them in the first place.

Director Li said subtly, “Also, I don’t think his friend is necessarily the one who created the CNC system.”

Secretary Wu paused for a second before asking, “What do you mean?”

Director Li stared at him and said, “Around six or seven years go, he wrote more than a dozen theses on artificial intelligence, neural network, and drone logistics. Even though it was sent to an unknown journal, some of the experts from the information engineering department found and read the theses. They all agreed that these theses couldn’t be written by an average scholar. After all these years, if his programming ability stayed the same or even improved... He might have done something incredible himself.”

Secretary Wu was in shock and disbelief.

“So you’re saying he is the one who wrote the CNC system code? But this is totally different from mathematics, this is...”

“It’s ridiculous, right?” Director Li smiled and said, “Sometimes I think so too, but it’s not impossible. Think about it, he spent all that effort buying the equipment, so how could he forget about the crucial CNC system?”

Secretary Wu said, “But he didn’t know...”

Director Li shook his head.

“Even if he didn’t know, what about the people who helped him buy the equipment?”

Director Li stared at Secretary Wu, who was totally frozen, and said with nuances, “Not to mention, do you really think the CNC system is more difficult than a controllable fusion control system?”

648 Was Proven?

At night time.

Lu Zhou quickly finished his dinner and began walking back to his office. On his way there, he called Chen Yushan and told her about the equipment.

After Chen Yushan heard Lu Zhou’s explanation, she sighed.

“You should have called me, your price is obviously too low.”

Lu Zhou sighed and said, “I thought so too, but I couldn’t go back on my word.”

Chen Yushan was speechless. She said, “Of course you can go back on your word, who cares what an enterprise thinks? Just change your offer.”

Lu Zhou: “Uh, that’s not good, right? I already agreed.”

Chen Yushan: “Okay then, if you want to keep your word, we can use another method.”

Lu Zhou: “What method?”

Chen Yushan smiled mischievously and replied, “A million is just the installation fee, this doesn’t include the service fee and system update fees.”

Lu Zhou was speechless. He said, “You’re way too good at extortion.”

Honestly speaking, even though Lu Zhou didn’t like these two Shenyang Machine Tool executives, he still wanted China to have a spot in the international machine tool industry.

Even though he wasn’t familiar with this field, production and research were closely related. He didn’t want to offend anyone.

He had plans to build a collider and an outer-space laboratory, and all of these exciting high-tech projects needed industrial support. He would have to pay a ton of import taxes if he relied on other countries.

“Why would you care about them?” Chen Yushan said, “I’m telling you, if you really care, then you shouldn’t have offered such a low price! They deserve to pay a higher price. It’s only then that they will try to invent new technology on their own. If you don’t charge them a higher price, they’ll never treat their researchers well. True competitive enterprises all come from high patent licensing fees!”

Lu Zhou felt that Chen Yushan made sense, so he nodded and replied, “I don’t really want to handle this, so we’ll just do what you say.”

Chen Yushan: “You should have made me handle it in the beginning!”

When it came to things that were related to work, Chen Yushan was like a different person. Her mannerisms and actions were almost ferocious.

It was refreshing for Lu Zhou to see this side of her.

After everyone left for the evening, Lu Zhou went back to the institute warehouse. He installed the CNC system that Xiao Ai wrote onto another machine. He didn't have to worry about this anymore since Star Sky Technology would handle the rest.

The next day, the people from the State Administration for National Defense came over and placed the machine tool into their car.

Lu Zhou happened to see Yang Zhongquan, so he smiled and greeted him.

"Oh, Yang Zhongquan, are you ready to eat?"

Yang Zhongquan thought back to his words and instantly blushed. He turned around and walked away.

Secretary Wu smiled and joked, "Ummm... The machine tool is too expensive. It costs us tens of millions, we can't let him eat it."

Lu Zhou smiled and didn't say anything.

...

The new space launch site was still under examination and approval, but the State Administration for National Defense said that it shouldn't be a big problem. The space shuttle manufacturing site was approved a week ago. The construction equipment had already been moved to the site, and they had begun the construction.

The construction company that won the bidding wars was a local engineering company based in Jinling. It met the military engineering qualifications, as well as the security and confidentiality conditions. It should be able to easily construct the spacecraft assembly factory.

Since the construction was managed by professionals, Lu Zhou left it alone. He focused on his Yang-Mills existence and mass gap research.

According to the results he discussed with Luo Wenxuan, the most reliable way to find the particle mass m was to introduce a Quantum Yang-Mills Field.

This would require a massless field that could propagate at the speed of light, whereas quantum particles had a positive mass, which was, a positive number Δ . And the energy of any excited particle state must not be less than Δ , thus ensuring that the strong interaction nuclear force was short-ranged.

Lu Zhou exchanged ideas with Professor Fefferman and Professor Witten through email messages, and the advice Lu Zhou received was peculiar.

Witten believed that the method of using a Quantum Yang-Mills Field to solve the Yang-Mills theory wasn't reliable and that the M theory would be a more reliable way of explaining the mass gap.

However, the problem was that there wasn't any direct evidence to prove the existence of the M theory, or string theory for that matter. Using a hypothesis to prove another hypothesis was obviously unreliable.

Unlike Witten, Professor Fefferman was optimistic about Lu Zhou's proposal of a Quantum Yang-Mills Field.

At the end of Fefferman's email, he mentioned something interesting.

[... When traditional methods fail to solve new problems, the best thing to do is to create new ways to adapt to the ever-changing world of science. You're creating a quantum field that corresponds to the classical effects described above, to solve a problem that cannot be described on this space-time manifold. I think this method is very interesting, it is at least worth a try.

[If I weren't busy with my own research project, I would have bought a plane ticket to fly over there and research this problem together with you.]

Other than exchanging emails with Professor Fefferman and Witten, Lu Zhou's only other partner was Luo Wenxuan.

This was actually quite embarrassing. Even though the Institute for Advanced Study had been established for a long time, there weren't a lot of big talents. Institute of Computational Materials, on the other hand, had plenty of talents, and their scientific research level was world-class.

However, when it came to the Institute of Mathematics or the Institute of Physics...

They were basically relying on Lu Zhou's reputation.

He had to admit, cultivating talents and creating an academic environment would take a lot of time.

Institute of Physics.

Director's office.

Whenever Lu Zhou couldn't find any inspiration to solve a problem, he would come here. This was his time to exchange new research discoveries with Luo Wenxuan.

When Luo Wenxuan saw Lu Zhou walk into this office, he looked up from his computer and asked, "Did you make any progress on the Quantum Yang-Mills Field?"

"I'm still a bit off, but I think I'm very close to the answer. There's just a thin layer between me and the answer... Of course, this layer might be made of frosted glass," Lu Zhou walked to the water dispenser and made himself a cup of instant coffee. "What about you?"

Luo Wenxuan shook his head.

"I think there's a thick wall between me and the answer."

Lu Zhou: "You'll figure it out eventually... Oh yeah, what are you doing?"

Luo Wenxuan: "I'm looking at the theses on Arxiv to see if there are any interesting ideas. Ever since your report, the number of Yang-Mills equations theses has been growing at an exponential rate. However, the average quality of these theses has been declining at an exponential rate."

Lu Zhou smiled and said, "That's understandable, everyone wants to find an answer."

Luo Wenxuan sighed and said, "Yeah, after all, this is the most difficult problem of the century."

Lu Zhou took a sip of his coffee and said, "Not necessarily. I think the Riemann's conjecture is more difficult. There has been some progress made on the Yang-Mills theory over the past few decades, but the Riemann's conjecture is still a mystery."

“Really, is that what you think?” Luo Wenxuan shrugged and carelessly said, “One might be more difficult than the other, but as long as I am unable to solve the problem, they’re the same to me.”

He said while clicking his mouse.

While staring at the computer screen, he suddenly froze.

Lu Zhou, who was sipping on his coffee, noticed Luo Wenxuan’s expression and asked, “What now?”

Luo Wenxuan looked away from his computer screen. He looked at Lu Zhou as he said with a perplexed expression on his face, “The Yang-Mills existence and mass gap... was proven?”

649 **Serious Flaws**

It was proven?

When Lu Zhou looked at the screen, his face was full of surprise. He put down the coffee cup in his hand.

“Are you sure it was proven? Is it not a possible proof idea?”

“Yeah, I am... The author of the thesis claimed that he solved the Yang-Mills existence and mass gap problem. Also, this guy’s background is impressive,” Luo Wenxuan said while looking at the author’s information. He spoke in disbelief, “Brian Caro, professor at Oxford University. A member of the Royal Society, academician of Academia Europaea. Participated in the Higgs particle discovery. Won five medals, including the Institute of Physics Isaac Newton Medal... Unbelievable, he’s sixty years old.”

Sixty years old wasn’t exactly the golden age for physics research, but it wasn’t old enough for significant memory decline. However, even then, making such an achievement at this age was no piece of cake.

Lu Zhou had never even heard of Professor Brian Caro, but maybe that was because he didn’t know a lot about the theoretical physics community.

After Lu Zhou heard Luo Wenxuan talk about Brian's accomplishments, he began to ask questions.

"Is the thesis already released as a preprint? Or just the abstract?"

Luo Wenxuan clicked his mouse and said, "The preprint is already released."

Even though this type of situation was rare in the mathematics world, it wasn't rare in the physics world, especially in the field of theoretical physics. For a major theoretical physics problem like this, a lot of experienced professors like to publish a preprint of their theses to prevent other scholars from stealing their glory.

After all, it was very difficult to produce results in theoretical physics. Being one step behind could lead to years of extra hard work.

Lu Zhou was intrigued. "Print a copy for me."

"Okay... But I don't understand why you like to read printed papers, isn't it easier to read it on an e-reader?"

"There's no special reason why, I just like being able to physically touch the thesis."

Even though Lu Zhou would read papers on his phone, that was only when he didn't have access to the printed version.

If he were sitting on a sofa or studying at a desk in the library now, he would much rather prefer reading a printed copy of the thesis. Not only was it easier to make notes, but it was also easier for him to write down inspirational thoughts that come to mind.

The printer started humming.

Luo Wenxuan was reading the thesis on his computer when he suddenly said, "What if he is correct?"

Lu Zhou paused for a second and looked at him strangely.

"Good for him then, what's the problem?"

Luo Wenxuan looked at him in disbelief.

“You won’t feel sad?”

Lu Zhou: “What’s so sad about it?”

Luo Wenxuan looked helpless as he said, “But, we researched this problem for so long, we are one step away from the finish line. You don’t feel anything?”

Lu Zhou said nonchalantly, “I don’t feel anything. I don’t really care who solves the problem, it’s all the same for me.”

Lu Zhou had already won the Fields Medal and the Nobel Prize. He didn’t crave for more medals. He researched these problems purely because he wanted an answer. If someone else was inspired by his research and successfully solved the Yang-Mills existence and mass gap problem, he would actually feel more satisfied than if he had solved it himself. [Read more chapter on](#)

Luo Wenxuan looked at Lu Zhou. He opened his mouth and sighed.

“Okay then... I don’t feel the same at all.”

Lu Zhou said, “You’ll get there eventually.”

...

After a minute or two, the twenty-page thesis was printed.

One could say that a lot of care had been put into this thesis, especially since it was a preprint version.

The formatting met all of the normal journal standards and the proof section of the thesis was clear and concise. It wasn’t like those typical Internet preprints, which were full of mistakes.

After the thesis was printed, Lu Zhou sat down on a sofa and began to read the thesis abstract and content.

Overall, Brian Caro did a pretty good job, both from a mathematical and a physics perspective. Even though there was still a gap between him and top scholars, Caro’s ability matched his reputation.

What surprised Lu Zhou the most was that the method adopted by Brian Caro was similar to the idea that Lu Zhou and Luo Wenxuan had. Brian Caro's thesis was also based on Professor Jaffe's thesis in Annual Mathematics. It tried to explain the Yang-Mills existence and mass gap by finding the particle mass m .

However, Lu Zhou and Caro had different methods of finding the particle mass m .

Brian Caro didn't introduce a Quantum Yang-Mills Field. Instead, he used a method similar to Weinberg, he introduced a scalar space-time manifold to solve this problem.

However, even though there were many nuances in the thesis, in Lu Zhou's opinion, this thesis wasn't rigorous at all.

After all, the massless strong interaction problem couldn't be solved by using a simple "symmetry breaking" method.

"His proof is very close, but it's still a bit off." Lu Zhou put down the thesis and grabbed his coffee mug. He noticed that his coffee was cold, so he walked up and made himself another cup of coffee.

Luo Wenxuan immediately looked up. "So, is he correct?"

"Yeah, but don't gloat too much. We can still learn some stuff from his thesis, like how he used the existence of a four-dimensional gauge field to normalize the lattice point or how he set a constant effect on the torus Euclid space... Of course, there are many problems."

Luo Wenxuan: "Like what?"

"Like when he talked about the normalization of grid points, he didn't prove that the lattice step size limit tends to zero. Therefore, his method of defining the torus Euclid space-time isn't rigorous, it's actually wrong."

Lu Zhou gently blew on his cup of coffee and took a sip. He paused for a few seconds before saying, "But I'm not sure if it's because this is a preprint version. He might have already found a good proof method, but just didn't post it yet."

This type of scenario was pretty common.

After all, a lot of high-quality theses on arXiv were perfected through constant discussion and revision.

Luo Wenxuan: "So he didn't prove it?"

"It seems so. I don't care what other people think, in my opinion, he didn't succeed." Lu Zhou sighed and looked a bit disappointed.

He originally thought Professor Brian could show him something novel. He didn't expect Professor Brian to make so many mistakes.

As expected, Lu Zhou had to rely on himself to solve the problem.

Professor Brian Caro's thesis caused a sensation in the academic community.

Since most people speculated that the Yang-Mills existence and mass gap was going to be solved by Professor Lu, no one expected this sudden change of events.

The last problem of the Yang-Mills equations was actually solved by a professor at Oxford University.

Of course, people weren't overly surprised by Professor Brian Caro's proof. After all, this big name had been in the field of theoretical physics studying gauge theory for more than two decades. It was understandable for him to make such a major breakthrough like this.

After Professor Lu gave a general solution to the Yang-Mills equations, it inspired the entire mathematics and physics community.

Professor Brian Caro's reputation instantly blew up in the theoretical physics community, and the number of theses that were being posted on arXiv regarding the Yang-Mills equations also reduced by a huge amount.

Everyone was waiting.

They wanted to see what the physics community thought about this thesis.

They were waiting for opinions posted by top scholars.

Oxford University.

Inside a study room with red wooden bookshelves, Professor Brian Caro was sitting on a sofa. He was being interviewed by Nature Weekly. He looked energetic and high-spirited.

When he was asked about the Yang-Mills existence and mass gap, the question that troubled the theoretical physics community for decades, he leaned back against the sofa cushions and easily gave an answer.

“The Yang-Mills existence and mass gap is a very complicated problem. Even though we can observe the phenomenon in physics experiments and computer simulations, we weren’t able to give a mathematical explanation. This was the reason why we couldn’t understand its existence from a quantitative perspective. This problem troubled the physics community for more than half a century. It’s like a marathon, but now the marathon is finally finished.”

The journalist Belinda from Nature Weekly was holding a microphone, and she asked seriously, “Then how did you solve it?”

Brian Caro said, “How do you want me to answer this question?”

Belinda smirked and said, “I hope you can talk about the source of your inspiration and the solution to the problem in a way that can be understood by the average person.”

“I’ll try.” Brian took a sip of black tea and gracefully put down the teacup. He said, “I have researched this problem for more than two decades. The report from Jin Ling University inspired me to a great degree. By introducing the L Manifold method, Professor Lu taught us how to apply a differential geometry method to the solution of nonlinear partial differential equations. I think this is extremely significant to the mathematics and physics world.”

Belinda said, “So did you use the same, or a similar method?”

Brian shook his head and said, “Not necessarily, but Professor Lu’s idea did give me some inspiration. We all know that the Yang-Mills existence and mass gap cannot be observed in a four-dimensional gauge field. In order to prove it, we must introduce classical variable transformations. Therefore, my approach is to introduce a scalar space-time manifold on the whole problem, then use a simple method to solve the problem.”

Brian unconsciously grinned.

He couldn't help but feel satisfied whenever he thought about how smart he was.

Belinda smiled and said, "Will you display the content of your thesis in the form of a report presentation?"

Professor Brian smiled politely and said, "Of course, this is the common practice of academia. Every great discovery is bound to be met with questions, even Einstein was no exception to this rule. My proof report will be held in the lecture hall at the University of Oxford. I will explain all of the methods I have used and answer any questions from my peers."

Belinda then asked, "What do you think would be the opinions of the other physicists?"

Professor Brian: "If they are confused or have any questions, I welcome them to ask me any questions. However, I think the possibility of this happening is low."

Belinda: "However, according to the comments on arXiv, Professor Lu has some interesting opinions about your thesis. He thinks that there are at least three sections in your thesis that weren't explained clearly, and that these sections couldn't be easily fixed."

Professor Brian initially frowned, but he quickly relaxed and spoke in a gentle tone.

"Professor Lu is a respectable scholar, but he isn't the highest authority in academia. Everyone makes mistakes, including me, including him."

Belinda was interested, and she asked, "So, what you're saying is, Professor Lu could be wrong this time?"

"I didn't say that, but that is possible. I am confident in my own thesis, after all. I have been researching this problem for more than 20 years. He has researched this problem for less than a year, a little negligence from him is normal"

Professor Brian stopped for a second and cleared his throat.

"Of course, in order to clarify his misunderstandings, I will send him an invitation to my University of Oxford report. He will get to witness this glorious

moment. If he wants to come, I will answer all of his questions during the report.”

...

Jinling Institute for Advanced Study.

Knocking sounds were heard from outside the institute director’s office.

Lu Zhou was writing something on his desk. He stopped writing and looked up at the door.

“Come in.”

The door was pushed open.

Luo Wenxuan walked in while carrying a Nature Weekly magazine.

“I heard that Professor Brian wants to invite you to his report,” Luo Wenxuan said as he placed the magazine on Lu Zhou’s desk. He looked at Lu Zhou and asked, “Did you receive his invitation?”

“Yeah, I received it yesterday,” Lu Zhou said as he nodded.

Luo Wenxuan: “Do you plan on going?”

Lu Zhou thought for a bit and shook his head as he said, “It’s not a good idea for me to leave the country within the next five years, I might not be able to go.”

Luo Wenxuan: “That’s unfortunate.”

Luo Wenxuan knew about Lu Zhou’s situation.

Before the controllable fusion negotiations were finished, a top scholar like him should be more careful when traveling overseas, both from the standpoints of technology confidentiality and personal safety.

It was just too risky.

Lu Zhou didn’t really care. “It’s not unfortunate at all. After all, it’s not an important conference.”

He had been following the thesis. Even though Professor Brian made some modifications to the thesis preprint, Lu Zhou wasn't satisfied. Honestly speaking, even if Lu Zhou had the time, he wouldn't want to attend the report.

After all, he could just email Brian the thesis mistakes.

Luo Wenxuan smiled and said, "Then I'll go instead, make sure to reimburse me for the flight."

Lu Zhou joked, "You still care about that?"

Luo Wenxuan waved his hand and said, "Yeah, I have to. I plan on starting a family, so I have to be more frugal."

"Well, good for you then..." Lu Zhou smiled and shook his head. He pulled out a check from his drawer and signed his name on the check. "Forget about the reimbursement. Just take €5,000."

Luo Wenxuan took the check and smiled as he said, "Why are you being so generous? Looks like I'm going to spend an extra day or two in England."

"Go ahead, have a great vacation."

University of Oxford, lecture hall.

The venue was fully seated.

The scholars sitting in the venue either chatted with each other or flipped through the thesis print-out and report summary...

The noisy venue was like music for Brian Caro's ears. In half an hour, he would become one of the greatest mathematical physicists of this century. He would place down the last piece of the Yang-Mills equations puzzle and win a million USD in prize money... Or at least a third of the prize money.

For a scholar working in the theoretical field, this prize money was quite substantial.

Of course, his motivation for solving this problem wasn't the prize money. In his opinion, money and honor were bonuses.

So why did he try and solve this problem?

Because pushing civilization forward was a pleasant thing in and of itself.

There was still fifteen minutes until the report. Most of the participants had already arrived. The ones that still hadn't arrived, probably wouldn't end up coming. The security guard standing at the entrance of the lecture hall opened the doors and allowed some of the people, who didn't receive the invitation letters, into the venue.

Professor Brian was wearing a black suit. He stood at the venue hallway and looked at his watch. He looked at the venue entrance and seemed a little disappointed.

A waiter wearing a black suit and a bow-tie walked over.

Professor Brian looked at the waiter and immediately asked, "Is Professor Lu here?"

The waiter paused for a second and shook his head. "No."

Professor Brian was even more disappointed now.

However, it was what it was.

Even though it was unfortunate that Professor Lu couldn't come, there were a lot of other big names who were attending this report. Regardless of whether or not Professor Lu was here, his report would continue.

Fifteen minutes passed by, the report officially began.

Brian walked on stage and began to show his PowerPoint presentation. He started to talk about his main thesis ideas, as well as some of the methods he used to prove the Yang-Mills existence and mass gap.

Luo Wenxuan was in the crowd. He took a deep breath and opened his laptop that was placed on his knees.

On his laptop screen were some of the problems he discovered while researching Professor Brian's thesis. It would be great if his questions could be answered during Professor Brian's report, but if not, he would ask them during the Q&A session.

On the other hand, Peter Goddard and Edward Witten were sitting together.

Both of them were big names in the mathematical physics world, and their main area of expertise was string theory. When they heard that Professor Brian from the University of Oxford claimed to have solved the Yang-Mills existence and mass gap, these people immediately left CERN and took a flight to the UK.

As Goddard listened to Professor Brian's talk, he sighed.

"If only Professor Lu was here."

He was the dean of the Princeton Institute for Advanced Study. When he received Lu Zhou's resignation letter, he tried to convince Lu Zhou to stay. Unfortunately, he didn't succeed. Every time he thought about Lu Zhou, he would feel a little regretful.

"He has his own matters to attend to." Witten smiled and closed his laptop. He said, "Also, regardless of whether he is physically here or not, I believe that he won't miss this report."

Goddard: "What do you think about Professor Brian's thesis?"[Read more chapter on v ipnovel.com](#)

Witten thought for a bit and said, "I need to take some time to think about it. After all, he has modified it at least a dozen times after he released the preprint. I saw the final version just a week ago. I think his proof idea is worthy of recognition, but I feel like something is wrong. If the Mathematical Physics journal wants to invite me as a reviewer, I'll express my opinions in the review process... What do you think?"

Before the report began, Professor Brian stated that his finalized thesis would be submitted to Mathematical Physics. If everything went according to plan, Mathematical Physics would organize at least five people to conduct a rigorous review of this thesis.

Witten was a top mathematical physicist who had won the Fields Medal before, so Mathematical Physics obviously wouldn't forget about him.

Of course, this was true for Peter Goddard as well.

Goddard went silent for a while. He then responded, "I feel the same way. His proof might be flawed... Also, I view this problem in a different way?"

Witten raised his eyebrows. "Oh really?"

Goddard used a pen to draw four points on his notebook as he said, "Set a four-dimensional gauge field with $SU(N)$ or $SO(N)$ and $SP(N)$ as the norm group. This might be equivalent to the $1/n$ chord coupling constant in string theory... If this is the case, both the mass gap and the quark confinement can be perfectly explained."

Witten raised his eyebrows as he said, "From the perspective of string theory?"

Goddard nodded at him and said, "Yes."

Witten smiled and said, "Your opinion is interesting. Maybe we can go for a cup of coffee after the report finishes."

Goddard smiled and said, "Haha, only if you're paying."

In the midst of talking about a new proof idea, these two didn't realize that in the back of their minds, they had no hope for this report anymore.

Two hours passed by, the report came to an end.

After Professor Brian finished his PowerPoint presentation, the lecture hall erupted in applause. It was time for the Q&A session.

Professor Brian made adequate preparations beforehand and answered all of the questions that were raised by scholars.

Soon, there wasn't anyone asking questions.

Professor Brian was about to announce the end of the report when someone raised their hand.

"Wait a second."

Professor Brian looked at the lonely hand in the crowd and frowned. However, he quickly smiled cheerfully.

"Yes?"

Luo Wenxuan took a deep breath and closed his laptop. He then stood up.

Witten was sitting on the other side of the lecture hall, and he suddenly had a look of surprise on his face.

Goddard looked at him and said, "You know him?"

Witten looked at Luo Wenxuan, who was standing up, and said, "Of course, he was my student."

Even though Luo Wenxuan had attended more than two dozen reports, being stared at by so many scholars still gave him a lot of pressure.

He calmed himself down and then looked at Professor Brian.

"I have a question."

Brian: "Go ahead."

Luo Wenxuan: "On page 11, line 15, I noticed that you defined the constant amount of motion in the torus Euclidean spacetime... Is that correct?"

Brian lifted his chin and said, "Of course, we use the Euclidean spacetime to formalize the lattice point, this is crucial to the entire theorem argument."

"Like you said, this is important, but..." Luo Wenxuan took a deep breath before asking, "But how do you plan on proving that the grid step size is zero?"

652 Solved It?

"How did you prove that the grid step size limit tends toward zero?"

The moment Professor Brian heard this question, his eyebrows furrowed.

Do you really need to ask?

The answer is obviously...

The words were at the tip of Brian's tongue. However, he froze.

His mouth was wide open, but nothing came out.

How to prove that the grid step size limit tends toward zero?

F*ck... How do I prove this!

When he was writing the twenty-page thesis, he used this as a theorem without providing any proof. However, this wasn't entirely his fault; this was such a small detail that it was almost insignificant to put the proof in the thesis.

A drop of cold sweat dripped down his forehead.

"This an interesting question... Hmm, interesting, of course I can prove it..." Brian said some meaningless words, in hopes of providing him with more time. His brain was operating at 120% as he desperately tried to find a solution.

However, the more anxious he was, the slower his thinking became.

The venue was dead silent.

This silence was terrifying to Brian.

As it turned out, delaying didn't help Brian at solving the problem.

When the crowd saw that Professor Brian couldn't answer this question, whispers were heard around the venue.

Witten was sitting on one side of the lecture hall. He closed his notebook and smiled as he said, "Looks like I won't have to worry about a reviewer invitation by Mathematical Physics."

Constant action in a torus Euclidean spacetime.

Detecting errors in a complex spacetime like this was difficult.

If Witten had to review the thesis, he wouldn't miss this detail. However, it was very difficult to find a mistake like this during the live report. After all, there were too many areas that were worthy of paying attention.

However, when Witten remembered that Luo Wenxuan was working at the Jinling Institute for Advanced Study, he instantly knew what was going on.

He knew that Luo Wenxuan must have talked about this stuff with Lu Zhou beforehand...

Goddard looked at Professor Brian with sympathy and nodded.

“Yeah.”

As a British, he obviously wanted Professor Brian to be right.

However, it looked like Professor Brian couldn't repair this fatal loophole in his thesis. This report would have to end with a disappointing ending.

Unfortunately, their trip to the UK was a waste.

No wonder Professor Lu didn't come...

The venue went into chaos, a lot of people had even begun to leave the venue.

It wasn't like the scholars had somewhere else to be, but they knew it wouldn't be worth waiting for Brian to answer.

The reporters who were standing on both sides of the venue also noticed the chaos, and they frantically pressed their camera shutters. A lot of reporters were even prepared to run toward Professor Brian after the report and stick their microphones in his face.

Even though the University of Oxford staff members tried to maintain order, it seemed like the chaos was uncontrollable.

Luo Wenxuan was still standing there, and he felt a bit nervous.

Especially since Professor Brian was staring at him with a dirty look, it even gave him the chills.

Originally, he wanted to take a vacation here for a few days.

But now, it seemed like...

He should go back home instead.

...

Jinling Institute for Advanced Study.

Inside the corner office.

Lu Zhou was sitting at his office desk. He was writing some stuff on a piece of draft paper.

Because Luo Wenxuan was gone, there wasn't anyone worth talking to at the Jinling Institute for Advanced Study. Since Lu Zhou had been absent from Jin Ling University for quite some time now, he decided to use this opportunity to work in his office at Jin Ling University.

The change of environment gave him more thinking room, and he could also help his own students with some of the problems they had encountered.

He Changwen was sitting at his desk while watching the full report. He pushed his glasses up his nose bridge and asked Lu Zhou, "Professor, did you tell Professor Luo about the loopholes in Professor Brian's thesis?"

Lu Zhou stopped writing and pondered for a second.

"I actually did mention the torus Euclid spacetime effect with him, but even if I didn't mention it, he would have spotted the mistake himself."

He Changwen adjusted his glasses. He had a poker face on the outside, but his heart was surprised.

He knew that Professor Luo was Witten's student and was in the Thousand People Initiative, but he never saw any of Professor Luo's theoretical physics achievements. He didn't expect Professor Luo to be this strong.

Not to mention, that Professor Brian wasn't just a nobody. Even though he wasn't a top-ranking scholar, he was still high up in the academic world. Not to mention, he had been researching the Yang-Mills equations for more than 20 years. Being able to find mistakes in Brian's thesis wasn't something normal people could do.

Lu Zhou looked at He Changwen's look of disbelief and said, "You think it's incredible?"

He Changwen nodded and said, "Yeah, I do."

Lu Zhou smiled and said in a relaxing manner, "It's nothing incredible, fame is just a byproduct of strength. Once someone reaches a certain level, fame and honor will naturally come."

He Changwen: "What level do you think Professor Luo is?"

Lu Zhou thought for a bit and said, "Fields Medal is too difficult, and Nobel Prize is too dependent on luck. However, if he puts his mind into the path of mathematical physics, he can definitely win the Dannie Heineman Prize."

Dannie Heineman Prize!

He Changwen was shocked.

Even though this award wasn't well known outside of physics, anyone in the mathematical physics world knew of this award.

This award wasn't significant among CERN researchers, but when it came to Chinese researchers, having this award alone could make someone a leader in the academic society...

He Changwen paused for a second and said, "Do you think Professor Brian can fix his mistake?"

"I think it's not..."

Lu Zhou suddenly stopped.

His pen also stopped moving.

He Changwen paused for a second before asking, "Professor?"

Professor Lu sat there as motionless as a statue.

He Changwen was about to speak again, but Lu Zhou's pen suddenly moved. He muttered to himself in a quiet voice. It was so soft only he could hear it.

"I see..."

The particle of mass m was the key to solving the problem. According to Jaffe's proof idea, this was crucial for the strong interaction Yang-Mills existence and mass gap problem.

However, it was almost impossible to calculate this specific value.

The mass of the particle wasn't defined in the quantum chromodynamics world. It might not even be a particle.

Even now, he didn't have a value for m .

However, he had the proof of its existence.

As long as it existed, the theorem could be proved.

He didn't have to find the mass value at all!

Lu Zhou looked at the lines of calculations on the paper, and his eyes gradually lit with excitement.

He stood up abruptly as if he had just received an electrical shock.

"I solved it!"

He Changwen: "...?"

Everyone else in the office: "???"

A long time went by.

The office was dead silent.

The report ended with a failure.

However, for world-class problems like this, the physics community was relatively tolerant. As long as he could reasonably fix the problems in his thesis, no one would immediately invalidate his thesis. However, this was a huge blow to him personally.

For theses that were new or weren't full of obvious mistakes, even the best scholars wouldn't be able to find mistakes during the report conference. Especially since most scholars weren't in the same research field.

Revision of the thesis, long discussions with the reviewers, these troublesome matters were often carried out in the review section of the journal submission.

However, this was only the report session, yet it ended in such a disastrous way.

He was feeling frustrated and humiliated at the same time.

“Goddamn it!”

Professor Brian threw the pages onto the floor, and he tightened his fist. He was about to punch the table but didn’t want to hurt himself.

Everyone in the office saw how furious Professor Brian was. No one dared to speak.

Even though this old gentleman looked enlightened and wise, he wasn’t always this way. Anyone who had spent a lot of time with him would know that he was quite an emotional person.

If anyone pissed him off when he was angry, that person could forget about spending a good time at the University of Oxford.

After a while, Professor Brian finally calmed down a bit.

His assistant, who was standing next to him, hesitated for a bit before speaking, “This isn’t a deadly mistake. Even though we can’t explain this problem, at least we were able to calculate the mass m in computer spacetime manifold simulations... There might be mistakes in our proof process, but no one can prove that we are wrong.”

Professor Brian felt a little better, but he still wasn’t in a good mood.

“This is meaningless... Computer simulation results aren’t always convincing, especially for problems like this.” Professor Brian pinched his eyebrows and thought for a long time. He said, “But you’re right, no one can prove that we are wrong, we’re just not perfect.”

Professor Brian took a deep breath and tried to cheer himself up. He cleared his throat and said,

“Okay, guys, get ready to work... The Asian professor is correct, this mistake is important. If we can’t prove that the grid step size tends toward zero, our proof won’t work. It’s actually a good thing we discovered this mistake now, as opposed to finding out about it later.”

After everyone in the office heard Professor Brian's words, they sighed in relief and started to work again.

Professor Brian got up and walked to the coffee machine and made himself a cup of coffee.

He sat back down at his desk. Before he rectified this problem, he set his arXiv thesis status to "In Progress".

However, when he went on the arXiv website, he found a new thesis posted in his field. It was on the Yang-Mills existence and mass gap; the problem he claimed to have already proved.

Professor Brian was stunned. He wondered who would do such a thing.

He then opened the thesis.

The second he saw the thesis title and author, he was stunned.

Lu Zhou?

WTF?

Without hesitating, he skipped through the abstract and went straight to the main thesis body.

The more he read, the more his eyelids began to twitch.

Especially when he saw the crucial " $m=\sqrt{(2+O(\lambda^3))}$ " formula. His eyes were filled with rage.

The proof process was exactly the same!

The preprint published by Lu Zhou also referenced Jaffe's thesis and gave an asymptotic expansion of mass m !

There was a "tiny" deviation in the proof process... But in Brian's opinion, this was insignificant.

For example, he used a scalar field on a spacetime manifold, which was the method used by Weinberg to establish the unified theory of electroweak interaction. However, Lu Zhou used a quantum corresponding to the Yang-Mills theory, the Quantum Yang-Mills field.

There was a thunderous roar in the office as Professor Brian stood up angrily from his chair.

“This can’t be a coincidence!”

He finally understood.

He understood why Lu Zhou didn’t attend his report.

Why some “nobody” from Jinling appeared instead.

And how this “nobody” was able to point out the weaknesses in his thesis.

In his opinion, this was all premeditated. They planned to destroy his report. Then, they jumped on the opportunity to steal Brian’s proof while Brian was busy changing his thesis.

This kind of scenario wasn’t uncommon in the physics world. Whenever an idea was invented but wasn’t applied to its full potential, it would quickly be taken and used by other scholars, who would implement it in their own research and claim their research was the “first”.

However, he didn’t expect a scholar like Lu Zhou to do something like this!

“Professor...”

The assistant looked at Professor Brian.

The assistant was about to speak but decided not to do so in the end.

Brian was full of anger.

His eyes were filled with malevolence. There was no point in saying anything.

Professor Brian stared straight at his computer screen and said, “Contact BBC for me. I have to let everyone know how despicable this guy is!”

...

At the campus of the University of Oxford...

After the scholars from all over the world left, the campus returned to its peaceful state.

Two theoretical physicist students were holding textbooks while walking down the asphalt road next to the cafe. They just came out of the library and were about to return to their dormitory. Read more chapter on [v ipnovel.com](http://v.ipnovel.com)

They began to talk about quantum chromodynamics and the latest gauge theory research.

“Have you heard? The strong interaction Yang-Mills existence and mass gap problem has been proved!”

“Are you talking about Professor Brian Caro’s proof? Wasn’t it disproven?”

“No, not him, I’m talking about Professor Lu’s thesis.”

“Lu? From Jin Ling University?”

“Do you not know? Yesterday, he posted a thesis on arXiv at three o’clock in the morning. My professor even tweeted about it. I woke up in the morning and liked his tweet.”

“On arXiv? Alright, see you later, I’m going back to the library!”

“ ... ”

Next to the cafe.

Witten, who was wearing sunglasses, saw the young men walking past and smiled.

“Looks like Professor Lu won the race.”

He wasn’t in a rush to return to CERN. Instead, he talked about solving the Yang-Mills existence and mass gap from a string theory perspective with Goddard. However, it seemed that his past two days of discussions weren’t necessary.

After all, Professor Lu, who had always been known for his rigorous proofs, had released a preprint.

Finding a mistake in Lu Zhou’s mathematics thesis was more difficult than writing a thesis.

Goddard was sitting across from Witten. He took a sip of coffee. It was almost like Goddard knew this was going to happen.

"I knew it."

"There's a CERN conference the day after tomorrow." Witten looked at his watch. He then looked at Goddard as he said, "Now that the Yang-Mills existence and mass gap has been proven, do we still have to discuss our string theory idea?"

Goddard: "Even though the Yang-Mills existence and mass gap has been proven, the strong interaction and electromagnetic force unification haven't been proven yet. Aren't you interested in the Nobel Prize?"

He knew that Witten had always been angry about not being able to win the Nobel Prize even though he was one of the pioneers of string theory.

So far, it seemed like Witten wouldn't be able to win a Nobel Prize on the M theory. After all, there was no chance that this theory would be verified in this century. However, there was more to theoretical physics than just string theory, namely, the Grand Unified Theory.

However...

"Forget about it." Witten smiled and stood up as he said, "If he is correct, then there is no one in the world closer to the objective truth than him. If someone wanted to surpass him, they would have to surpass him in talent and grit. If I were twenty... or thirty years younger, I would be interested in competing with him. But now..."

Witten looked at Goddard and shrugged.

"Forget about me, are you confident in yourself?"

Goddard didn't say anything. He just reached out his hand. He grabbed his coffee cup and took a sip.

Aging was a sad thing.

Especially for people who had devoted their lives to academia.

Even though they didn't care about the extra wrinkles on their faces, their decline in fluid intelligence and critical thinking was inevitable. Both him and

Witten used to be able to stay up for days while thinking about a problem. However, that wasn't possible anymore.

Their time was gone...

The preprint thesis posted on arXiv swept the entire physics community like a tsunami.

Even though everyone mentally prepared themselves before reading the thesis, after they read the thesis, a lot of people were shocked by the huge amount of information in the thesis.

Both the solution to the Yang-Mills theory and the proposal of the Quantum Yang-Mills Field allowed people to look at this problem from a different perspective.

Just like always, Lu Zhou's thesis was as rigorous as possible. Unless there was a major mistake, he wouldn't make any changes to the thesis. Therefore, this was likely going to be the final version.

After he uploaded the thesis, he finally completed his mission.

Lu Zhou was sitting at his desk waiting for a cup of coffee. He leaned back in his chair and went into the system space.

He walked toward the translucent holographic panel in the pure white dimension. A line of words soon appeared in front of him.

[Congratulations, User, for completing the mission!]

[Mission completion details are as follows: Complete the Millennium Prize Problem Yang-Mills equations.]

[Final mission evaluation: S]

[Mission reward: 300,000 mathematics experience points, 300,000 physics experience points. 500 general points. One lucky draw ticket.]

[S evaluation special reward: 10% experience points bonus.]

I didn't get an S+?

Lu Zhou looked surprised.

Normally speaking, S+ was accompanied by a bonus reward mission.

The extra rewards for an S grade were usually experience points, general points, or equipment.

Obviously, the best would be a branch award, but he had only ever received one branch award before. Which was at the CERN seminar, where he discovered the 750 GeV signal. The system considered the discovery as a completion of a hidden branch mission, which gave him a considerable amount of experience points.

Lu Zhou stared at the information screen while wondering where he could have done better.

Is it because uploading it on arXiv isn't solemn enough?

But this didn't make sense. After all, when he first proved Goldbach's conjecture, he also uploaded the preprint to arXiv before submitting the official version to Annual Mathematics later.

If he recalled correctly, he received an S+ evaluation.

Lu Zhou couldn't think of a reason why he didn't receive a perfect evaluation, so he set this matter aside.

Even though Lu Zhou didn't receive an S+ evaluation, he wasn't overly distraught. After all, after he completed this mission, he planned on using his mission card, which would activate a mission chain. If he received another reward mission, he wouldn't know what to do.

"System, open my characteristic panel!"

A gentle blue light swept across the screen, showing his characteristic panel.

[

A. Mathematics: Level 8 (774,000/3 million)

B. Physics: Level 7 (13,215/1.2 million)

C. Biochemistry: Level 5 (110,000/300,000)

D. Engineering: Level 5 (0/300,000)

E. Materials science: level 6 (13,000/600,000)

F. Energy science: Level 3 (0/100,000)

G. Information science: Level 2 (3,000/50,000)

General points: 4,335 (one lucky draw ticket)

]

Lu Zhou looked at his physics experience points and felt relieved.

Jesus Christ, thank god my mission evaluation was S, which gave me the experience points.

If it wasn't for the extra 10% experience points, which gave him an additional 30,000 physics experience points, he would have had 583.215,000 physics experience points, just on the edge of the 600,000 level 7 requirement.

Missing the cutoff by a bit would have been so annoying.

As for mathematics...

Since Lu Zhou was nowhere near leveling up, he wasn't in a hurry.

After he received his mission rewards, the next thing to do was the exciting lucky draw.

Lu Zhou navigated to the lucky draw page and clicked on the lucky draw button. He took a deep breath and watched the roulette wheel rapidly rotate. He then pressed stop.

The inertia of the wheel caused it to spin a couple dozen more times. It slowly came to a stop.

[Congratulations, User, sample received.]

Lu Zhou's heart skipped a beat.

[Received: Energy Medicine (10x)]

[Energy Medicine: Developed by Future Pharmaceuticals. It can completely remove any fatigue accumulated by the nervous system and the somatic cells. Completely restore the user's cellular function and metabolic level to the optimal state.]

Lu Zhou's heartbeat returned to normal.

He stared at the reward and went silent for a while.

What does this thing even do?

Does it mean I can stay up all night, take this stuff, and recover?

Regardless, it's still better than the useless cologne.

Lu Zhou opened his inventory and saw his new prize sitting inside. He then looked at his mission card, which he had had for a long time.

[Special mission card: Able to activate before accepting a normal mission. Activation begins a special mission chain, which replaces the normal mission. Special mission chains cannot be stopped unless the user fails the mission.]

[Activate? Yes/No]

Lu Zhou didn't hesitate. He reached out and clicked "Yes".

A light blue wave swept across the screen, and the updated mission panel was soon presented in front of him.

[Special Mission Chain: Take Control Of The Earth and Moon]

[Mission Description: Learning how to stay warm at a cold night like this isn't enough. Fortunately, there is an undeveloped abundance of resources near the vicinity waiting for human exploration.]

[Target: Complete three milestones.]

[Mission reward: Final evaluation is determined by the user's performance on each stage. Rewards include but are not limited to, experience points, general points, samples, blueprints, special items...]

The entire mission chain was divided into three milestones. Only the first milestone was visible, the other two were blacked out.

This mission chain was different than the previous one. There were no various paths that he could take to complete the mission. Lu Zhou had to follow the system's plan step by step.

Until Lu Zhou completed the first stage of the mission, he wouldn't even know what the next mission stage was.

Therefore, he couldn't find any shortcuts.

However, there were also advantages.

For example, he would receive experience and rewards after each phase of the mission instead of waiting for the entire mission chain to be completed.

Lu Zhou reached out and selected the first mission milestone.

[Target 1: Implement a manned moon landing.

[Requirements: Send at least one astronaut to the moon and successfully bring them back while ensuring their personal safety.]

[

Secondary goals:

1. Collect and bring back 1kg of lunar soil. Reward: 10,000 experience points.
2. For a period of five months, deploy 10 square meters of crops on the surface of the moon. Observe and record the growth of the crops under conditions of low gravity and the absence of a magnetic field. Reward: 10,000-50,000 experience points.
3. Place ten live mice on the surface of the moon for five months. Record mice activity under low gravity and the absence of a magnetic field. Reward: 10,000-100,000 experience points.

...

]

Lu Zhou looked at the mission information screen and began to contemplate.

"So, I'll have to send someone to the moon?"

Honestly, he previously thought about sending a few communication satellites or signal stations to the moon. After that, he could maybe send equipment for some unmanned scientific research experiments. However, it seemed like the system was eager for him to send a live person.

The Yang-Mills equations had been solved, and the unified theory of the strong interaction and electromagnetic force was bound to be discovered. Controllable fusion battery technology was almost feasible, and Lu Zhou already had an idea of how to implement controllable fusion batteries.

After I complete the Hall-effect thruster and fusion battery, I guess I'll send someone to the moon.

After Lu Zhou confirmed his mission, he exited the system space.

Lu Zhou's consciousness returned to his study room in his mansion. He wasn't in a hurry to start working. Instead, he went into the kitchen and made himself a cup of coffee. He then opened his computer and went on his MathOverflow account.

This was the world's largest and most professional mathematics forum, many well-known scholars such as Tao Zhexuan and Schultz had their own accounts and blogs, and Lu Zhou was no exception.

Even though Lu Zhou didn't update his blog as often as Professor Tao, he still liked to communicate with scholars from all over the world.

Lu Zhou knew that his thesis on arXiv should have been downloaded a lot of times by people around the world. He opened his MathOverflow email, and he was shocked by the number of email messages he received.

The most interesting part was that it wasn't just email messages from people in the mathematics world, there were also email messages from physics PhD students, postdocs, and physics professors. They all sent him private messages.

The core content of these private email messages was the same.

They were all asking him how close he was to the electrostrong interaction theory.

Or rather, how long it would take him to solve this problem.

The Yang-Mills existence and mass gap were explained from a mathematical point of view. Therefore, it was only a matter of time before the unified theory of electrostrong interaction would be discovered. After all, the most difficult part about the electrostrong interaction was that one couldn't use the "symmetry breaking" method, which was used to discover the electroweak interaction.

However, now that the Yang-Mills existence and mass gap problem was solved, there was no longer a bottleneck on the electrostrong interaction. It was clear that it was only a matter of time before a groundbreaking theory would be discovered.

When Lu Zhou read these email messages, he couldn't help but smirk.

Replying to all of them was way too cumbersome.

Lu Zhou used a blog function that he had never used before, and he spent ten minutes writing a post before clicking "Send".

[I'll give you guys an answer before the end of the month.]

This short blog post exploded in the physics community.

...

Lu Zhou's life had been chaotic for the past few days. However, after solving the Yang-Mills equations, he could finally climb into bed and get a good night's sleep.

He slept until six o'clock the next day, when his circadian clock woke him up. After he had some breakfast that Wang Peng brought him, he went to Jin Ling University.

He got off the black sedan and began to walk toward the mathematics building. Interestingly enough, people began to congratulate him.

"Professor Lu, congratulations!"

"I didn't think I would witness this day in my lifetime, Professor Lu, you're amazing!"

“Congratulations, congratulations. Your name will be in the physics hall of fame.”

Lu Zhou maintained a stiff smile as he responded politely to everyone who greeted him.

He didn't know why, but he felt like some of the professors were waiting on campus just to congratulate him.

The number of people that he happened to bump into was suspiciously high.

Not to mention, the physics building was quite far from the mathematics building.

Lu Zhou finally arrived at his office. He sighed and was about to sit down at his desk. However, he saw someone was already on his sofa, and there was a warm cup of tea on the coffee table.

“Academician Lu?” Lu Zhou was surprised as he looked at the old man. He walked over there and asked, “Why are you here?”

Academician Lu used to be Lu Zhou's supervisor, so Lu Zhou had a lot of respect for him.

Even though they didn't spend a long time together, even now, Lu Zhou's internship experience in CERN was still valuable to him.

Academician Lu smiled and said, “What else could I be doing, I'm here to see you.”

Lu Zhou smiled and said, “You could have just told me. I would have gone to the physics department to visit you. You didn't have to come all the way here.”[Read more chapter on v ipnovel.com](#)

Academician Lu waved his hand and said, “There's no need for that. It's not far, and I don't have anything else to do anyway. Plus you're so busy with your research, I don't want to disturb you too much.”

The old academician had aged quite a lot. Even though he wanted to attend conferences all over the world, his fragile body wouldn't let him. Ever since he retired from scientific research, he devoted most of his energy to teaching the next generation of scholars at the Jin Ling University.

Lu Zhou: "What do you mean? I still have some free time to visit you."

"Yeah, whatever." Academician Lu waved his hand and smiled. He then said, "The reason I came here today is mainly to congratulate you!"

Lu Zhou smiled awkwardly.

Even though he had been congratulated a lot on the way here, hearing his ex-supervisor congratulate him made him feel proud, something he hadn't felt in a long time.

Academician Lu looked at Lu Zhou and nodded. His heart was full of praise and admiration.

Accomplishing this much in the field of theoretical physics at such a young age was extremely rare. Academician Lu could have never imagined that convincing Lu Zhou to dive into the world of theoretical physics would change the history of physics.

He paused for a second before he continued, "The Grand Unified Theory is the holy grail of theoretical physics. The unification of the strong interaction and electromagnetic force is the second step to the Grand Unified Theory. Since you were able to solve the mass gap, I'm sure you're close to solving the electrostrong interaction. Your name will go down in history, not only as a great physicist but also as a monument of the human spirit."

"Just a while ago, I thought that you were distracted by the aerospace field, wasting your physics talents. I was wrong," Academician Lu spoke emotionally. He looked at Lu Zhou and half-jokingly said, "You're the most omnipotent physicist in the world, go do what you have to do!"

Lu Zhou solemnly nodded.

"Ok!"

He knew what Academician Lu was talking about.

He also knew what he should be doing.

After Academician Lu left, Lu Zhou sat down at his desk and pulled out a piece of paper from his drawer. He thought for a second and then started to write his electrostrong interaction thesis.

Maybe because he leveled up in physics, which improved his ability to think about these types of abstract problems, or maybe because he was used to solving peculiar problems like this, but his writing was fluent than before.

It was almost like success was imminent.

Lu Zhou skipped the abstract and finished writing the first section of the thesis. He stopped writing and looked at the paper, almost like it was a piece of art. He couldn't help but smirk.

However, the office door was suddenly pushed open. Zhao Huan, who was responsible for his schedule, quickly ran into the office.

"Professor, this is bad."

Lu Zhou looked up from the draft paper and looked at Zhao Huan.

"What's bad?"

Zhao Huan didn't say anything. She took out a newspaper and placed it on the desk.

Lu Zhou glanced at it. It was an English version of Daily Mail.

There was an article title on the second page.

[Professor Brian: This is plagiarism!]

Lu Zhou: "..."

Oh, it's this clown?

I thought it was something serious...

"This guy is literally lying!"

Zhao Huan said while watching Lu Zhou read the newspaper. She was feeling a little agitated.

She personally witnessed all the blood, sweat, and tears that Lu Zhou put into researching this problem.

But now, out of nowhere, someone was saying that Professor Lu stole the research results!

She thought this was outrageous!

However, unlike her, Lu Zhou was as cool as a cucumber. He even read the report with a look of interest in his eyes.

Lu Zhou finished reading the article and smiled. He then folded the newspaper and gave it back to her.

“Okay then.”

When Zhao Huan saw how unmoved Lu Zhou was, she paused for a second and couldn't help but ask, “Do you not care at all?”

“There's nothing to care about.” Lu Zhou picked up his pen and organized the draft paper on his desk. He said, “There's no way the Chinese media will run this story, so it won't bother me. As for the foreign media, I don't have to care about it, people will vouch for me.”

People having similar ideas happened all the time in academia. However, saying that Lu Zhou stepped on his idea, was a bit ridiculous.

Jaffe's thesis in Annual Mathematics had been published for more than half a century. Professor Brian definitely wasn't the first person to have thought of this proof; he was just the first that almost succeeded.

Luo Wenxuan was the real person who provided Lu Zhou with this idea, so he was stoked to find his name written on Lu Zhou's thesis.

As for why Professor Brian was acting this way...

He probably knew he was being illogical, but he just didn't want to act logically.

After all, this was his chance to make a name for himself. Forget about an unknown scholar, even a Nobel Prize level scholar would be tempted by this honor.

Lu Zhou decided to forget about the Daily Mail article. He didn't want to complain about Professor Brian's slander. Instead, he focused his attention on studying the electrostrong interaction.

Even though he was closer than ever to the objective truth, he still needed a lot of time to solve this problem. Just like how the “symmetry breaking” method was first introduced in theoretical physics during the 1960s, but Weinberg took years to complete his electroweak interaction theory.

However, sometimes accidents could happen.

Even if Lu Zhou didn’t actively look for a solution, a solution would find him.

Lu Zhou had been receiving some strange emails. Some emails were interview invitations from media outlets, others were just plain hate messages. Thankfully, Xiao Ai helped him filter out the “spam email”.

However, Lu Zhou couldn’t just stay silent like this forever.

After some contemplation, Lu Zhou decided to let his assistant arrange some interviews with various foreign media outlets.

Just like Lu Zhou had expected, the second the interview began, he was asked a controversial question.

“During Professor Brian’s interviews with the BBC, the Daily Mail, and other media outlets, he insisted that you plagiarized his research... What are your thoughts?”

Lu Zhou chuckled.

“I don’t have any thoughts.”

The reporter said, “You... don’t have an opinion?”

“Yes.” Lu Zhou nodded and replied relaxingly, “If Mr. Brian can prove the Yang-Mills equations by setting a spacetime manifold, then I’ll give him all the glory of solving a Millennium Prize Problem.”

Lu Zhou was totally calm when he said this, like he didn’t care at all.

However, the reporter next to him was shocked.

All the glory of solving a Millennium Prize Problem!

Even though the reporter had never heard of someone transferring “glory” to someone else, this so-called “glory” would make Professor Brian one of the most outstanding mathematical physicists of this century...

Maybe Lu Zhou didn't think it was convincing enough, so he looked at the reporter and said, “Of course, this is including the million-dollar prize money as offered by the Clay Institute.

“I'll even pay him in advance.”

...

The interview was first broadcasted on the Columbia Broadcasting System.

Then it was reposted onto other major video sites, such as Youtube.

Because of the British media's portrayal of the situation, the public was originally on Professor Brian's side. However, after hearing some words from Lu Zhou, the public started to doubt Professor Brian.

Lu Zhou didn't care about fame or fortune at all. There was no motivation for him to do something like this.

Maybe...

There was another side to this story.

Inside an office at the University of Oxford.

Professor Brian stared angrily at his computer screen as he watched Lu Zhou's interview in its entirety. When he heard Lu Zhou say that he would give the prize money to him, he almost started to blow fire from his mouth.

There was no way Brian was going to swallow his pride.

“You better keep your word, Mr. Lu Zhou.”

Professor Brian closed his laptop and pulled out some paper from his drawer.

“I'll give you the proof...

“This method is definitely feasible...

“You will pay for your own words!”

Time always flew by when one was immersed in research.

Even though Brian hadn't done intense research for a long time, with his rage and anger as fuel, it made him extra energetic. Even though being overly emotional wasn't a good thing, Brian turned it into drive and motivation.

A month passed by.

Professor Brian's beard grew like a wild forest. He didn't look like a gentleman anymore. He was almost unrecognizable.

A PhD student was sitting in the corner of the office. He looked at the professor and quietly whispered to himself, “The professor is insane...”

This PhD student used to study psychology before he went into physics.

According to his experience, this was clearly a sign of someone going crazy.

Another PhD student sitting next to him spoke as well.

“Sh, be quiet, don't let Professor Brian hear you.”

The office was only so big, so Brian was bound to hear it.

However, Brian Caro didn't care anymore...

His murky pupils looked straight at the crumpled pieces of paper. Professor Brian muttered to himself the same phrase that he had been saying for the past month, “This is impossible... This is impossible...”

However, this time, there was a trace of life in his voice.

He put down his pen and looked at the ceiling. He then said with a monotonic voice, “I proved it.”

The second he said those words, everyone in the office was stunned.

10 seconds of silence went by.

His assistant was the first one who dared to break this silence.

The young man in his twenties gulped and spoke in disbelief. His voice was trembling.

“You... p-proved it?!”

He proved it!

If Professor Lu was a man of his word, not only would Brian receive a million dollars, but he would also receive the honor of solving the Yang-Mills equations and become one of the greatest mathematicians of this century.

“Yes.” Brian looked at the draft paper and said in a self-deprecating tone, “I spent a month proving that the scalar spacetime field manifold cannot be used to research the strong interaction... A mathematical proof.”

Whether it was the invariant torus Euclidean space or the grid step size limit...

All of these mistakes were just manifestations of something deeper.

Luo Wenxuan didn't see the whole picture, and neither did Brian.

The most crucial problem in Brian's thesis was that the scalar spacetime manifold field itself couldn't be used to study strong interactions. It was as if $1+1$ could never be equal to 3, no matter how many factorizations he did, he would never be able to overthrow the Peano axioms.

Lu Zhou must have known about this since the beginning. That's why Lu Zhou was so sure Brian couldn't do it.

Brian finally realized this.

Even though he wasn't as talented as Lu Zhou, he still proved this in a mathematical way.

Maybe he could call this the “Brian's theorem” or a “non-standard theorem”?

In the midst of his self-deprecation, Brian had an epiphany.

It was at this moment, did he finally realized what Professor Lu was talking about.

"If Mr. Brian can prove the Yang-Mills existence and mass gap by setting a scalar spacetime manifold field?... Is that what you meant?" Brian said as he logged onto Youtube. He soon found Lu Zhou's interview.

After he watched the video, he smiled bitterly.

"Is this the difference between him and me?"

Lu Zhou's mathematics intuition alone was able to defeat something that Brian spent more than a decade on. In Brian's mind, Lu Zhou was an absolute monster.

Why do I feel like...

I'm becoming more and more in denial.

657 **Electrostrong Unification!**

Oxford University.

Inside the same office room.

Professor Brian cleaned himself up and sat at his desk. He looked at a piece of paper in his hand and took a deep breath. He then looked at the cameraman and nodded.

"We can start."

The cameraman didn't say anything. He only made a gesture.

Professor Brian looked at the camera and went silent for a while.

"It was extremely irresponsible of me to make such an accusation against an academic scholar. Even though there were many misunderstandings and other nuances at play, I still take full responsibility for the incident."

His eyebrows lowered as he paused for a second.

"I would like to apologize for what happened between me and Professor Lu.

“Even though I know an apology won’t fix anything, I still would like to ask for your forgiveness.”

Apologizing wasn’t an easy thing.

Especially for egoistic and arrogant people.

However, Brian had changed.

He spent a month researching the torus Euclidean spacetime. Not only did he grow academically, but his personal character also grew.

Even though this was embarrassing...

But the fact of the matter was that Professor Lu indirectly gave Brian a physics lesson, without Brian even knowing it.

This video wasn’t just an apology.

It was Brain saying goodbye to his past-self.

...

The video was very short; it was less than five minutes.

After it was uploaded on Youtube, it received a measly amount of views.

After all, it had been more than a month since Brian’s Daily Mail slander. This matter was no longer controversial. Even though Daily Mail heavily advertised the article, most people were only interested in the drama. They didn’t really care about the truth anyway...

Brian Caro was sitting at his desk. He had just finished uploading the video. He went silent for a while before he opened his computer and typed up an email. He sent the email to Lu Zhou’s mailbox.

Two days later, Lu Zhou watched this video in his office at the mathematics department of Jin Ling University.

“Amazing... Professor, how did you do it?”

Zhao Huan was sitting at her desk watching the video, and she had a look of worship on her face. She was in disbelief.

She couldn't imagine how Lu Zhou was able to make such a "shameless" person apologize so sincerely...

Calling Brian shameless was a bit over the top.

However, in her eyes, Professor Brian was a shameless scum.

"I didn't do anything." Lu Zhou turned off the video and casually said, "He just came to terms with it himself."

If Brian couldn't come to terms with this, then his academic career would have been over.

However, now that he accepted this situation, he was able to walk out of that dead end and continue onward with his academic career.

Lu Zhou didn't explain anything to Assistant Zhao. He continued to focus on his thesis.

It had been a month since the Yang-Mills existence and mass gap problem was solved. However, there wasn't a conclusive evaluation for Lu Zhou's thesis. Most of the top-tier international theoretical physics research institutes were still carefully studying Lu Zhou's thesis. Lu Zhou, on the other hand, hadn't stopped working.

He said that by the end of the month, he would give everyone an answer.

He was progressing smoothly.

He was almost finished...

The entire day went by.

Lu Zhou was still sitting at his desk with a pen in his hand. He touched his stack of draft papers and felt satisfied.

His strong interaction theory...

Was finally completed!

Lu Zhou spent the whole day working, and now, he was feeling a bit hungry. He put his thesis manuscript aside and wanted to go outside to eat something.

Han Mengqi, on the other hand, was holding a stack of freshly printed computational materials thesis. She cheerfully walked to Lu Zhou's desk and said, "Sir, I finished the task you gave me!"

Lu Zhou looked at her thesis and nodded. "Okay, just put it here."

Han Mengqi put the thesis on the corner of the desk and noticed the manuscript. She asked curiously, "What are you writing?"

"Nothing." Lu Zhou stood up and smiled. He casually said, "It's just a simple summary of the work I did a while ago."

...

2020 was an exciting year for the world of theoretical physics.

In less than a year, the general solution to the Yang-Mills equations and the mass gap problem was solved. The invention of the Quantum Yang-Mills Field began a new era for the gauge theory field.

And this wasn't just it.

While everyone was thinking that ten years' worth of physics research progress was made this year, another world-shocking research project emerged.

Three days after Professor Brian posted his apology video, Lu Zhou posted his second thesis on arXiv.

The title only had three words.

[Electrostrong Interaction Theory!]

The second the thesis was published on arXiv, it was like the physics community experienced a magnitude eight earthquake.

Even though everyone had no doubt that Lu Zhou, the one who solved the Yang-Mills existence and mass gap, was the most promising person in the world to unify the strong interaction and electromagnetic force, physicists still didn't expect to see Lu Zhou's thesis on arXiv.

In just one and a half months, Lu Zhou had perfected his own theorems and unified the strong interaction and electromagnetic force!

Lu Zhou couldn't even be described as merely being a genius...

After all, geniuses were people.

Lu Zhou was a god...

Apart from some Chinese research institutes, there wasn't a single well-known international research institute that commented on this freshly published paper. Most people either avoided questions from the reporter or gave an irrelevant answer.

After all, this was too important, even the highest-tier physicists had to treat this matter with caution.

If this thesis was correct, then it would change the face of physics for the next century.

If it was incorrect, but the academic community had mistakenly accepted it, then it could setback theoretical physics research for decades...

Switzerland.

CERN headquarters.

Witten was inside a coffee shop. He was sitting on a sofa with his legs crossed. He read through the thesis in his hand while drinking a cup of black coffee.

Sitting next to him was Jaffe.

The old man rested his hands on the table as he quietly waited for Witten to finish reading the thesis.

As the founder and the director of the Clay Institute, the inclusion of the Yang-Mills equations as one of the Millennium Prize Problems was decided by these two, and they were the ones who actually phrased the problem.

This problem was set to be the final physics problem of the Millennium Problems, and Jaffe thought that no one in this century would be able to solve this. He didn't expect this day to come so suddenly...

After a while, Witten finally flipped through the last page of the thesis.

Jaffe noticed this, so he asked, "You finished?"

"Almost." Read more chapter on

"I want to know what you think."

"He's even faster than I thought." Witten put down the thesis and looked at the calendar on his phone. He smiled and said, "41 days. He's probably the only person on this planet who can do something like this."

Jaffe sighed and said, "Is there anything else you want to comment on, other than his speed?"

"Unfortunately, these are all my thoughts at the moment." Witten sighed and paused for a second. He then said, "We don't have a clear conclusion regarding his previous thesis yet."

Witten couldn't help but feel emotional.

The international physics community was still arguing over Lu Zhou's previous research results.

This was the first time Witten witnessed research results being released faster than conclusions. It was as if the entire world were trying to catch up to Lu Zhou...

"There's a meeting in the No.1 conference room in a bit, about his thesis on arXiv... I'll mention it during the meeting. But I'm sure someone else will mention it if I don't," Witten said. He looked at his watch and continued, "Also, in any case, there has to be a conclusion about the Yang-Mills existence and mass gap thesis by the end of this month."

Jaffe nodded.

"I agree."

...

While CERN was preparing another seminar regarding the Yang-Mills existence and mass gap, it was already night time at the Jinling Institute for Advanced Study.

Most people were ready to leave work and go home, but the lights were still on inside the laboratories in the Institute of Physics.

This was especially true for the laboratory at the end of the corridor.

A dozen researchers sat in the 30 square meters sized room. Everyone's desk was filled with a foot high of research documents. Everyone looked exhausted.

This was China's "largest" research center for the miniaturization of controllable fusion technology. Most of the people here had worked on the original stellarator machine, and their specialties ranged from plasma physics to physics engineering.

However, this wasn't enough.

It had been more than half a year since the project was established, yet the research project hadn't progressed at all.

As usual, Sheng Xianfu looked at the dark sky outside the window. He walked to the coffee machine and returned to his desk with a hot steaming cup of coffee.

He found some documents from the Institute of Acoustics and was about to finish the research report for today. However, someone suddenly opened the laboratory door. A person walked straight in the laboratory.

"I have some stuff here." Lu Zhou gently tossed the documents in his hands onto Sheng Xianfu's desk and said, "I hope you can read it within a day... If not, try to finish reading it in less than two days."

Sheng Xianfu was muddled. He looked at Lu Zhou, then at the documents.

"What's this..."

"Some stuff that needs experiment verification. It's about the miniaturization of controllable fusion." Lu Zhou looked at the messy laboratory and said, "Also, about the question you asked me a while ago, I can finally give you a clear answer."

"High temperature isn't the only condition for achieving a fusion reaction. There are other methods. As long as we determine the relationship between

the strong interaction and the electromagnetic force, we can find this method...”

Lu Zhou grabbed a marker from the table and wrote down a string of equations on the whiteboard.

As Sheng Xianfu looked at the whiteboard, his eyebrows furrowed.

“What is this?”

Lu Zhou smiled and explained, “The formula that connects the strong interaction and electromagnetic force.

“It turns out that electromagnetic force and strong interaction force can be unified under the theoretical framework of the Quantum Yang-Mills Field. One month ago, I wasn’t sure of this, but now, I can prove it in mathematical terms.”

Sheng Xianfu was shocked.

“You... did it?!”

If he recalled correctly, Lu Zhou just solved the Yang-Mills existence and mass gap problem a month ago.

Lu Zhou thought for a second and said, “Yeah, kind of.”

Even though the theoretical physics community didn’t accept his research on the Yang-Mills existence and mass gap yet, this didn’t affect his “electrostrong interaction” research.

Not to mention, the high-tech system already accepted his research and gave him an S rating. Lu Zhou was extremely confident regarding his mathematical abilities.

Lu Zhou’s words echoed in Sheng Xianfu’s mind. It was like he was just hit by lightning.

He gulped and said, “But... how do you plan on incorporating this theory into our research?”

Applying theoretical results to practical problems was sometimes even more difficult than discovering the theory in the first place. This was especially true

for theoretical physics. The application of theoretical physics often came a century later than the discovery. Even though Lu Zhou successfully unified the strong interaction and electromagnetic force, Sheng Xianfu wasn't confident that he could apply this theory to the miniaturization of controllable fusion.

"This is why I came here." Lu Zhou tapped on the stack of documents and said, "I need your help to verify some of my conjectures."

Sheng Xianfu flipped through the stack of documents and glanced at the content.

"Is this..."

Lu Zhou nodded and said seriously, "Yes, the so-called sonoluminescence."

Lu Zhou was the director of the Institute for Advanced Study, so he obviously knew what Sheng Xianfu was researching.

Lu Zhou knew about the information Sheng Xianfu got from Professor Chen Weizhong at the Institute of Acoustics as well as the several models that Sheng Xianfu abandoned.

The physics community didn't have a clear conclusion regarding the principle of sonoluminescence. Some invented the "air implosion theory" or "chemical bond breaking theory"... However, the most attention-grabbing theory for the explanation of sonoluminescence was the "fusion reaction theory".

Lu Zhou looked at Sheng Xianfu and said, "I know you've failed many times, you might have even thought about giving up... I just want to say, your research is not useless, you just didn't find a suitable method."

Sheng Xianfu shook his head.

"I've tried every method there is, what else is there to do?"

Lu Zhou looked at the pile of documents.

"The answer to your question is in these documents."

Chapter 659 Amazing Experimental Results

Bubbles in a liquid could be stably suspended and periodically pulsated by a certain sound field. When it reached a collapse, within picoseconds, the bubble could produce a volumetric compression ratio of one to a million and create a high temperature and high pressure environment. When the sound pressure was large enough, the energy accumulation would cause the bubbles to illuminate. This phenomenon was called sonoluminescence.

In a proper driving pressure environment, the sonoluminescence bubbles could remain spherical. The nonlinear vibration was repeated for millions or even hundreds of millions of cycles. Because of this characteristic, controllable fusion could possibly be achieved under relatively low-temperature conditions.

Inside the Jinling Institute for Advanced Study.

The acoustics laboratory in the Institute of Physics was temporarily taken over by a controllable fusion miniaturization team led by Lu Zhou. A transparent container with a radius of around three inches was placed on one of the tables in the laboratory.

The entire transparent container was filled with a viscous concentrated sulfuric acid. High-powered ultrasonic generators were attached to both sides of the container. Various sophisticated instruments were placed around the entire unit, and they were ready to collect experimental data.

Because the sonoluminescence phenomenon happened at the picosecond scale, it was difficult for laboratory cameras to capture all the light flash, especially at the moment when the bubble collapsed to its smallest size.

Therefore, for this experiment, Lu Zhou borrowed a set of “a phase-locked loop-based proportional-integral experimental system” from the Jin Ling University Institute of Acoustics.

Other than being used in these special acoustic experiments, this system was generally used to study anti-submarine sonar systems. If it weren't for Lu Zhou personally asking for the favor, the Institute of Acoustics director would never in a million years have lent out the equipment.

Sheng Xianfu was standing next to the experiment device, and he looked at Lu Zhou.

Lu Zhou nodded.

“Let’s start.”

“Ok.”

Sheng Xianfu took a deep breath and walked to the nearest computer. He then swiftly pressed a few buttons.

As a short mosquito-like buzzing sound was heard, the high-powered ultrasonic generator began to release ultrasonic waves into the solution, transferring large amounts of energy.

When the sound pressure in the fluid reached five times the standard atmospheric pressure, Lu Zhou ordered.

“Inject the xenon!”

“Ok!”

The xenon gas was injected, and a series of bubbles slowly floated from the bottom of the container to the center.

Immediately after, the power of the ultrasonic transmitter began to gradually increase, and the sound pressure applied to the bubble also began to increase.

The moment the sound pressure on the bubble reached 15 times the standard atmospheric pressure, the xenon bubble floating in the concentrated sulfuric acid popped with a purple-white light!

The researchers standing around the experiment had a look of joy on their faces.

Even though this was only a test of the experiment device, and they were a long way from succeeding, this was definitely a good start.

The bubbles suspended in the fluid continuously flashed 10 sets of light-rays, and the photos were captured by the phase-locked loop-based proportional-integral imaging system. Several acoustic physicists at the Institute for Advanced Study immediately began to analyze the photos and calculate the luminescence temperature and power.

After Lu Zhou looked at the experimental data, he glanced at Sheng Xianfu.

The luminous power was around 130W. Even though it was gone in a flash, it was still quite astonishing. The peak temperature of the bubble surface reached a terrifying number of 1.5 million kelvin. It was like the inside of the sun was floating in the solution!

Of course, this data could be inaccurate.

After all, the collapse of the bubble happened instantaneously. It wasn't easy to capture the temperature in the first place, much less reducing the data collection error.

"The first phase of the experiment was successful, let's enter the next stage," Lu Zhou said. He placed the experimental report on the table and said to Sheng Xianfu, "Add a neutron shielding layer to the container and prepare for a deuterium-tritium gas injection!"

Sheng Xianfu nodded seriously and said, "Ok!"

The first stage of the experiment was a test of whether or not the design of the set-up was feasible and whether or not they could provide enough sound pressure to the bubble such that the temperature could reach more than a million kelvin.

It seemed like their experiment was very successful.

The xenon floating in the fluid was compressed to a tiny point, and inside that point was energy equivalent to that of a tiny star.

Even though it was at a temperature in the millions and was still far from controllable fusion ignition, the temperature wasn't the only way to achieve fusion ignition.

Not only did the bubble reach millions of kelvin, but it was also at a terrifying density level!

And density was the other condition for fusion reaction!

The researchers in the laboratory placed a transparent container in a black box, which was made of neutron-shielding material. They turned off the phase-locked loop-based proportional-integral imaging system and began to set-up the experiment again.

However, this time, the xenon was changed to a deuterium-tritium gas mixture. The ultrasonic power also increased by a whole magnitude.

The experiment began.

Even though the black box blocked the researchers' view, it didn't really matter.

Some things didn't need to be seen by the naked eye, and experimental data was often more reliable.

The researchers took out the concentrated sulfuric acid container and began to analyze the radiation damage and neutron fluence rate.

Lu Zhou was standing next to the researchers, quietly waiting for the experimental result.

Ten minutes passed by.

The results finally came out.

"The results are here!" a researcher happily said. He handed Lu Zhou the completed experimental report and said excitedly, "Through the neutron shielding material detection, there is sufficient evidence to suggest that the surface of the material was bombarded with 2.5 MeV neutrons during the experiment... The neutron fluence rate increased by 1.7%

"We have confirmation that the fusion reaction has occurred!"

Everyone in the laboratory was excited, and they nearly started to cheer.

Especially Sheng Xianfu!

He tightly clenched his fists.

This might work!

There wasn't anyone more excited than him.

However, even though the experimental results were gratifying, the neutron fluence rate wasn't optimal.

They only observed signs of fusion reactions occurring. They were still far from using this set-up for stable controllable fusion reactions.

Professor Li Changxia stared at the data in the experimental report and said, "The neutron fluence rate is way too low. If we want to achieve a stable controllable fusion reaction... this magnitude of the sound wave might not be enough."

Lu Zhou nodded seriously, and he said, "You're right, with our current set-up, it's difficult to achieve stable controllable fusion reactions. I think we have to replace the fluid."

Professor Li Changxia asked, "What kind of fluid do you plan on using?"

Lu Zhou shook his head and said, "I don't know, but I do have a rough idea."

"Idea?"

"Yes." Lu Zhou nodded and said, "Since traditional liquids can't reach the requirements under room temperature, why don't we try liquid metals? I think liquid lithium might be worth trying..."