

## Scholar's Advanced Technological System - Chapter 660 - CERN's Vote

### Chapter 660 CERN's Vote

While the Jinling Institute for Advanced Study was conducting experiments on "sonoluminescence" and "acoustic" fusion, a seminar regarding the Yang-Mills existence and mass gap was currently being held at the CERN headquarters in Switzerland.

Not a lot of people were attending this conference. Basically, all of them were top physicists, and more than half of them had won the Nobel Prize before.

It wasn't an exaggeration to say that if someone blew up this conference room, it would set back physics research by decades...

After Witten entered the conference room, he found a low-key position to sit down. He looked at another scholar sitting at the conference table.

Peter Higgs!

The godfather of subatomic particles!

Ever since Higgs returned to the UK from CERN in 2013, he rarely appeared in the public now. He was now 91 years old, so Witten didn't expect to see him here.

However, this did make sense. After all, this conference would determine the future of physics, and anyone who cared deeply about physics wouldn't miss an opportunity like this.

There was still some time before the conference would begin. Witten looked around the scholars in the room and saw that not only was Peter Higgs here, but many introverted, lonely physicists also showed up. They were sitting in this conference room, quietly waiting for the conference to begin.

"This is surprising," Jaffe said to Witten with a smile. "I didn't expect to see so many old friends here."

“Yeah.” Witten nodded emotionally. He was about to say something, but he heard a microphone testing sound coming from the front of the conference room.

The chairman of CERN was standing on the stage. He cleared his throat and said, “We have spent more than enough time discussing the Yang-Mills existence and mass gap.

“The entire theoretical physics community is waiting for our conclusions. Instead of letting the debates continue, it would be better to let the physics community hear our opinions... On whether it is correct or not.”

The chairman paused for a second before adding, “Therefore, I propose we vote.”

There was a commotion in the conference room.

The chairman coughed and raised his voice.

“Everyone that agrees, please raise your hand.”

More than 70% of the people in the conference room raised their hands.

The staff members sitting in the back counted the show of hands and sent the voting data back to the screen on the stage.

The chairman looked at the voting data and nodded. He signaled everyone to put their hands down before he continued to speak, “Everyone that disagrees, please raise your hands.”

Just like before, a lot of people raised their hands.

However, only around 15% of the people raised their hands in disagreement. A lot of people seemed hesitant when raising their hands, like they weren’t certain about their opinions.

The chairman looked at an old man sitting in the first row of the conference room and asked in a respectful manner, “Mr. Higgs, I noticed that you raised your hands twice, can I ask why?”

Professor Higgs, who was sitting in the front row, stood up while shivering slightly.

He looked at the chairman and said, “Mr. Chairman, the reason why I raised my hand the first time is that I can’t find any problems in the thesis. I raised my hand the second time because I am against making hasty decisions.”

The chairman nodded and said, “I know what you mean, but we have spent enough time discussing. It’s not just me; a lot of people also think it’s time for a final vote.”

“I don’t think we have discussed enough yet,” Professor Higgs said. “First of all, as the proponent of this theory, he is responsible for explaining his theory in detail. He should answer our questions directly. However, I have been paying attention to Jin Ling University’s official website, and it seems like Professor Lu has no plans for a report.”

A lot of people agreed with this.

Almost half of the people who raised their hands in disagreement agreed with Higgs.

In particular, Professor Wilczek, who was another Nobel Prize laureate, nodded and complained to the chairman.

“I don’t have any ridiculous demands. Even if he doesn’t want to come himself, he should at least send a student or assistant!”

It wasn’t an uncommon thing for scholars to send their own students or assistants to conduct academic reports. Whenever a professor was too busy with research or simply not interested in reporting, they would send their own students instead.

For example, Shinichi Mochizuki, who developed the “Inter-universal Teichmüller theory”, made two of his students report on the ABC conjecture. Shinichi Mochizuki, on the other hand, was “monitoring” the report through a live video feed.

It wasn’t a good idea for Professor Lu to leave China right now, and most scholars sitting here were well aware of this.

However, even though Lu Zhou couldn’t leave the country, he should at least send a student to do the report for him.

When the CERN chairman heard Wilzek's words, he contemplated it for a while.

"I will relay your suggestion to Professor Lu."

"Let's not talk about the report, just the thesis content. Does anyone have any questions or doubts regarding Professor Lu's theory on the Yang-Mills existence and mass gap?"

This time, not a single person raised their hand.

Not even Professor Higgs.

There was also Witten, who hadn't raised his hand for the entire conference.

The chairman looked around the room and felt relieved. He had a smile on his face.

Since all of these big names didn't have any objections, there shouldn't be any serious problems with the thesis.

"It looks like we have reached a consensus.

"History will remember this day, we just took a big step toward the Grand Unified Theory!"

He paused for a second and continued, "The discussion about the Yang-Mills existence and mass gap ends here.

"Also, a lot of professors, such as Professor Witten, proposed an experiment for the latter half of this year to the first half of next year. We will arrange an experimental plan for the m particle and conduct energy zone testing for Professor Lu's thesis..."

"Regardless of whether or not we can find the particle, I believe that the experimental data obtained will help our understanding of the standard model!"

The CERN conference came to an end.

On the same day of the conference, CERN issued a public statement, announcing their approval for Lu Zhou's thesis on the Yang-Mills existence

and mass gap. They also published their meeting agenda for the next month, as well as changes to their experiment schedule.

One news article appeared after the other.

Because of CERN's voting results, this matter completely blew up...

Chapter 661 Invitation From CERN

On Weibo.

The moment the announcement came out, Everyone Daily posted on Weibo regarding the announcement. The post was less than a hundred words long.

After the public found out what the CERN voting result meant for the Yang-Mills existence and mass gap problem, the re-post and likes blew up.

[Nutty!]

[God Lu is amazing!]

[The world of physics is going to change.]

[I guess that means the electrostrong interaction is also correct, right?]

[You can't say that, there's a difference between the Yang-Mills existence and mass gap and the electrostrong interaction. Even if Lu Zhou's thesis was written well, it has to undergo a rigorous and repeated review process by the physics community. Actually, this is much better than what Weinberg had to go through. When his electroweak interaction theory came out, no one paid attention to his research. It was more than a decade later that the physics community finally accepted his research.]

[Lu Zhou's research speed is too fast, the world can't catch up to him.]

[I can't believe this, my master's research is going nowhere. I can't take this anymore... :(]

[Goddamn it, he's smarter than me and more handsome than me! (cry.jpg)]

Someone is calling me handsome?

How embarrassing is this...

Lu Zhou was scrolling through Weibo while sitting in the cafeteria eating lunch. He couldn't help but smile as he liked the comment.

In fact, he didn't expect CERN to make a decision so quickly.

He thought that he wouldn't hear anything from them until the end of the year.

However, it seemed like he didn't have to wait that long.

Lu Zhou finished his lunch and returned the food tray. His phone suddenly vibrated and a text bubble popped up.

Xiao Ai: [Master, you have mail!]

New mail?

Lu Zhou was curious. He opened his email and clicked the unread email.

The sender's email address was CERN Secretariat. Because Lu Zhou saved this email address a long time ago, he recognized this address.

The author of this email was Kalman Soma, CERN's secretary-general. When Lu Zhou was interning at CERN, he exchanged a few words with Kalman. However, Kalman Soma was only an ordinary office director at the time, mainly responsible for reception work for other partner countries.

[Dear Professor Lu, I am the secretary-general of the CERN Council Secretariat, Kalman Soma. First of all, please allow me to pay the utmost respect to you and your research results. The unification of the four basic forces is the lifelong pursuit of all mathematicians and physicists. Without the great work from outstanding scholars like you, civilization cannot move forward.

However, many people are still confused with regard to the two theses you recently published on arXiv. We understand that you are not able to do a live report, but we hope that you can appoint a trusted student or another scholar to explain your theory and answer some of the questions raised by our scholars.]

The email was pretty short, but it was sincere.

This request was definitely reasonable.

For a world-class problem like this, it was a common convention in the academic community to explain one's theory through the form of a report. If Lu Zhou weren't busy with the miniaturization of controllable fusion, he would report this theory at the old Jin Ling University campus.

Lu Zhou thought for a bit and wrote a short email.

[I will consider your proposal seriously, I will soon appoint a candidate for the report.]

Lu Zhou clicked "Send" and then called Luo Wenxuan.

When the call was connected, Luo Wenxuan immediately said, "Hello? What's up?"

Lu Zhou thought for a bit before asking, "Are you interested in a work vacation?"

Luo Wenxuan was suddenly interested, and he immediately asked, "Tell me, where am I going to humblebrag this time?"

Lu Zhou nearly choked on his saliva. He asked seriously, "What do you mean humble brag???"

"Okay, whatever," Luo Wenxuan said. "Just tell me, where am I going?"

Lu Zhou: "Switzerland."

Luo Wenxuan: "CERN?"

Lu Zhou: "Yeah, they're inviting me to do a report there, but I can't really go. So you'll have to go on my behalf."

Luo Wenxuan: "Piece of cake, I got this... When do I need to leave?"

Lu Zhou: "Probably in the near future, it depends on when you're ready."

Luo Wenxuan had worked with Lu Zhou on the Yang-Mills existence and mass gap problem before, and after the thesis was written, they talked in detail about the Yang-Mills existence and mass gap.

Therefore, Luo Wenxuan was the most suitable candidate to represent Lu Zhou to do the report. As long as the questions weren't too difficult, Luo Wenxuan could handle the report by himself.

After Lu Zhou told Luo Wenxuan about the report, he left this matter aside.

Lu Zhou went into his office at the mathematics department and was about to take a break.

When he opened his office door and walked to his desk, Lin Yuxiang's eyes instantly lit up. She stood up and greeted him.

"Professor, when you were eating, CTV called us."

"CTV?" Lu Zhou's eyebrows furrowed as he asked, "What do they want?"

Lin Yuxiang smiled and said, "Well, didn't you recently solve the Yang-Mills equations? They wanted to do an exclusive interview with you on this matter, and they wanted me to ask if you are available?"

Lu Zhou: "Which program?"

Lin Yuxiang smiled and said, "I think it's a special program, prepared just for you. Apparently, it's going to be broadcast at CTV's 8 pm time slot."

Even though Lu Zhou wasn't interested in the interview, he still had to give some respect to the national television.

Of course, he didn't want to waste too much time.

After all, compared to interviews, he cared a lot more about his research.

Lu Zhou thought for a bit before asking, "Do I have to go to Beijing?"

Lin Yuxiang: "No, you don't, they said they'll send a reporter here."

Lu Zhou nodded and said, "Okay then, tell Assistant Zhao about this and arrange an appropriate time."

Lin Yuxiang playfully saluted.

"Yes, sir!"



The interview was scheduled for a week later.

All of Lu Zhou's time was being spent on the miniaturization of controllable fusion.

In order to increase the maximum temperature peak of the bubble in the working fluid, several old professors at the Institute of Acoustics tried to help. They removed the acoustic suspension stabilizer on the ultrasonic generator, which increased the energy of the ultrasonic wave. The maximum sound pressure acting on the bubble was increased from 15 times atmospheric pressure to 30 times.

However, this all came at a cost.

Removing the acoustic suspension stabilizer meant that the bubbles couldn't remain stable in the center of the fluid container.

However, sonoluminescence didn't require the bubble to float in a certain position, so this didn't matter too much.

After the experiment equipment was updated, Lu Zhou brought Sheng Xianfu and the team to repeat the experiment. They used a gas mixture of xenon and deuterium and observed the bubble temperature and neutron recovery rate.

When the completed experimental report was handed to Lu Zhou, Sheng Xianfu felt a mixture of emotions as he spoke, "The situation isn't looking good, the peak temperature can only reach a maximum of 10 million kelvin, but the lowest is only about 500,000 kelvin."

Lu Zhou stared at the experimental report and frowned.

"Is the difference that big?"

Sheng Xianfu nodded. "The temperature change observed by blackbody radiation is quite unstable. We don't know if our observations are incorrect, or if it's something else."

If they could make the bubble peak collapse temperature reach 10 million kelvin every time, it would be possible to stabilize the fusion reaction by shrinking the volume and using fast ignition.

Unfortunately, this seemed to be an extremely difficult thing to do.

Lu Zhou asked, "What about the neutron fluence rate?"

Sheng Xianfu hesitated for a second before saying, "It has improved... But we're still a long way from stable controllable fusion."

Lu Zhou thought for a bit before asking, "How is the new experiment container going?"

Sheng Xianfu: "The China National Nuclear Corporation already finished building it. It should arrive tomorrow."

Lu Zhou finally felt a little relieved.

He placed the experimental report on the table and said to everyone, "Today's experiment is finished, we'll check the equipment tomorrow, and use liquid lithium the day after that."

Sheng Xianfu nodded seriously.

"Ok!"

Just like Lu Zhou's calculations predicted, when the lighter liquid lithium was used as the working liquid, the sonoluminescence performance did exceed that of the concentrated sulfuric acid. Especially when the mixed gas was introduced, the sound pressure acting on the surface of the bubble was significantly improved and the maximum atmospheric pressure is 31.7 times atm[1].

However, the liquid lithium was at 700 degrees Celsius, making it extremely volatile. The experiment became several times more dangerous than using concentrated sulfuric acid.

During the third experiment, the experimenter accidentally mixed a small amount of oxygen when preparing the deuterium gas mixture electrolysis. This instantly caused the container to burst into flames.

Fortunately, the amount of oxygen was small. The researchers in the laboratory reacted quickly to the situation and rescued the laboratory. If the liquid lithium melted through the working container, the high-temperature liquid lithium would instantly be in direct contact with air. If that were to happen, they could forget about the laboratory; the entire building would be at stake.

After that, everyone in the Institute for Advanced Study viewed Sheng Xianfu's research team in a different way...

The days quickly passed by, and it was soon the day of the interview.

Lu Zhou was inside his office at the mathematics department of Jin Ling University. He met the interview team from CTV.

Coincidentally, he had met the reporter a year ago.

"Hello, Professor Lu," He Ying said. She was in a dark blue formal attire. She extended her hand and gently shook Lu Zhou's hand as she said, "We meet again."

Lu Zhou smiled and nodded.

"Long time no see, Ms. Ying... Should we start now?"

He Ying smiled and said, "Let's start then."

She knew Lu Zhou was busy with research, so she didn't waste time on small talk.

After He Ying sat down on the sofa, she adjusted her posture and signaled the cameraman next to her. She put on a professional smile and said, "I am honored to have this opportunity to interview you. Before the interview begins, I want to ask you a few questions on behalf of the audience at home."

Lu Zhou smiled and said, "Ask away, I'll try my best to answer."

He Ying smiled and said, "Don't worry, they are easy questions."

She said, "We all know that the Yang-Mills equations problem is solved and the unification of the strong interaction and the electromagnetic force will completely change the world of physics. However, most people are puzzled by these concepts, what do you think about the future of physics?"

Lu Zhou smiled and said, "You're gonna start off with such a hard question?"

He Ying smirked and said, "It might be hard for most people, but it should be easy for you, right?"

"As a scholar, what do I think about the future of physics... This question isn't easy to answer. After all, no one knows when a revolutionary set of theory is going to be discovered." Lu Zhou contemplated for a bit and said, "The long-term goal of theoretical physicists is the Grand Unified Theory. Now that the strong interaction and the electromagnetic force have been successfully unified, the only thing left is gravity. Of course, even though we have spent a century researching this theory, we haven't even touched the tip of the iceberg."

He Ying then asked seriously, "Is there a reason why gravitational force is so difficult to unify?"

Lu Zhou: "Of course! Gravity is the most mysterious field of physics, even though we are more intuitive regarding gravitational force than the other three fundamental forces. Actually, both string theory and the quantum gravitational theory explain gravity in two diametrically opposite ways. No one knows which is correct."

He Ying said, "What's a more realistic goal then?"

Lu Zhou leaned back against the sofa and said, "A more realistic, or short-term goal, is to verify and explore the standard model. Even though the standard model is magnificent, we can always find things that exist outside of the standard model. Whether through experiments or theoretical research."

Lu Zhou paused for a second and jokingly said, "Like the  $m$  particle, even though I don't know what it looks like, I can prove its existence using mathematical methods. If someone can find the particle, then another piece of the standard model puzzle would be solved."

He Ying: "This sounds very exciting."

Lu Zhou smiled and said, "Yeah, exploration of the unknown is exciting."

He Ying: "However, theoretical physics is still a very distant concept for most of us. Can you explain how theoretical physics influences society?"

Lu Zhou thought for a long time.

He Ying began to wonder if Lu Zhou was allowed to answer this question. She was about to ask the cameraman to pause the interview when Lu Zhou suddenly spoke.

“This is a very abstract question. It is very difficult for me to tell you about a theoretical physics discovery that people can see with their own eyes. Just like the Higgs particle, gravitational waves, etc. The things we find in the universe are generally useless for most people.

“This includes the  $m$  particle that I talked about earlier. Even if we unify the electroweak interaction, electrostrong interaction, and gravitational force, and create a theory of everything, the universe will still remain the same. Perhaps we should use theoretical physics funding for charity work, it will make people’s lives better.”

Lu Zhou paused for a second before he added seriously, “However, if no one researches these seemingly ‘useless’ things, we won’t have a future.”

[1] Atmospheric pressure

Chapter 663 Xiao Ai’s Colorful Bubbles?

After that, He Ying asked a question about the  $m$  particle and the strong interaction force, as well as some things about the moon landing project. Lu Zhou answered all the questions to the best he could.

The hour-long interview was finally finished.

After the interview, Lu Zhou requested the cameraman to show him some of the footage.

Lu Zhou was quite satisfied with how he looked during the interview.

After the CTV interview finished, Lu Zhou invited the interview team to dinner. After that, he went back home.

He poured himself a hot glass of milk and went into his study room. He was going to look at his computer, then go to sleep. However, he suddenly received a call from Chen Yushan.

“Hello?”

“It’s me, I call you in the afternoon, but your phone was off.”

Lu Zhou could hear echoes coming from Chen Yushan’s side as well as sounds of water splashing around.

Is she taking a bath?

Lu Zhou didn’t think much of it, and he replied, “In the afternoon? It’s probably during the CTV interview, I think I turned off my phone.”

Chen Yushan pouted while sulking.

“Why didn’t you call me back then?”

Lu Zhou: “Oh, I didn’t see your call.”

Chen Yushan brushed her wet hair and sat in a more comfortable position. Her head was the only part of her body above the water.

“Whatever, it’s your loss anyway. The reason I called was that I wanted to tell you that the space shuttle manufacturing center is already built.”

Lu Zhou looked surprised.

“Already?”

Chen Yushan answered with a smug voice, “Yeah, the first phase of the project is just a few factories, so it didn’t take a lot of time to build. How about you go check it out when you have time?”

Lu Zhou nodded and said, “Okay, I’ll go there when I have some free time.”

The conversation suddenly stopped.

Now that the business talk was finished, they didn’t have anything else to talk about.

Time quickly passed by.

Chen Yushan could sense the atmosphere becoming somewhat awkward. She wrapped her hands around her knees. The hot bath made her a little dizzy. She was about to say something, but Lu Zhou spoke first.

“Hello? Are you... okay?”

When Chen Yushan heard Lu Zhou’s voice through her Bluetooth headset, she suddenly blurted out, “Oh, I’m good... I’m taking a bath.”

She blushed and wanted to bury her face in the bathtub.

F\*ck, why did I say that?

Is he going to think...

She didn’t have to worry at all because Lu Zhou didn’t think anything of it.

“I know, just don’t pass out in there.”

Chen Yushan: “???”

You know?

How do you know?

Her face instantly turned bright red.

She went silent again. Lu Zhou didn’t know if he said something wrong, so he quickly tried to explain.

“Wait, I meant that... I guessed that you were in the bath. After all, there were all kinds of sounds, I analyzed the sounds...”[Read more chapter on](#)

Beep.

Before he could explain himself, the call was terminated.

Lu Zhou paused for a second and looked at his phone.

She hung up on me?

Screw it, who cares.

As long as she doesn't pass out in the hot bath.

Lu Zhou put his phone aside and finished his glass of milk. He looked at his computer and said,

"Xiao Ai, put some hot water in my bathtub, around 40 degrees, halfway full."

He was originally going to brush his teeth and head to bed, but he felt like taking a bath now.

He heard that baths were good for relieving fatigue.

Since he was so tired, he decided to let himself relax.

After Xiao Ai heard its master's voice, a text bubble popped out in the lower right corner of the computer.

Xiao Ai: [Do you need Xiao Ai to put some colorful bubbles in the bathtub?]

Lu Zhou: "Uh... Forget about the colorful part, normal bubbles are fine."

Xiao Ai: [Ok! (๑•̥̥̥•̥̥̥)✧]

...

Lu Zhou had to admit, that a hot bath was one of life's great pleasures.

He went out of the bathroom, covered only by a bathrobe. Every pore in his body felt relaxed. It was an indescribable feeling of comfort.

He went into his bedroom and fell asleep until six o'clock the next day.

After he got out of bed, he went on his morning run and came back. He ate some soup buns and sat in his black sedan. He didn't go directly to the institute or the university. Instead, he asked Wang Peng to go to the space shuttle construction site.

Concrete was poured onto the entire piece of land, and there were two three-story-high buildings. Lu Zhou could see the steel-reinforced concrete columns inside the buildings.



There was another five-story-high concrete building next to it. It was mainly for staff members, and it was also where the server was placed.

Just like Chen Yushan had said, the first phase of the project had been completed. They could start moving their equipment in.

Lu Zhou couldn't help but smirk.

With Xiao Ai's help, the most advanced five-axis machine tool, and a complete set of automated industrial equipment... Forget about the space shuttle, he was confident he could build a real-life Transformer robot.

It would just take time.

Lu Zhou suddenly thought of a serious problem.

He had to remind Xiao Ai not to place the pieces of equipment in random locations. After all, this wasn't his underground laboratory. The processing capabilities of this machine tool was far inferior to those automated industrial robots.

Lu Zhou stood outside the assembly center for a while. After that, he returned to his car.

"Let's go. Jin Ling University."

Wang Peng started the engine and looked surprised.

"Are you not going inside?"

"No need." Lu Zhou smiled and shook his head. He looked at the empty factory and said, "The things haven't been moved in yet, so there's no point going inside. Oh yeah, how many of your friends in the army are retired?"

"Some... Are you interested?"

"I want to hire a few security consultants. A salary of 10,000-20,000 RMB per month, food and accommodation included. Can you help me find anyone who's interested?"

Lu Zhou thought of this idea just a second ago.

If he wanted to get a license for a military-civilian project, he had to pass a confidentiality review. Not only was there a comprehensive qualification process, but this involved the production of aerospace technology, which was considered a sensitive technology. Security was a top priority.

Thankfully, Wang Peng had a military background, and he had a lot of connections to people in the army. Finding a few retired veterans for this job would be much better than outsourcing to a security company.

Not to mention, they could also train some security guards.

After all, this assembly center was considered private property. It would be unreasonable to use government resources.

When Wang Peng heard the RMB20,000 salary, he said, "This salary is making me a bit tempted."

Lu Zhou smiled and said, "Forget about it, you weren't in the security logistics department, so you're not a good fit."

Wang Peng smiled and didn't disagree.

"Okay then, I'll ask around for you... When do you need them?"

Lu Zhou said, "As soon as possible."

Chapter 664 I'll Read, You Write

On the other side of the planet, in Switzerland, the No.1 lecture hall at CERN headquarters was packed with people.

Luo Wenxuan was dressed in a suit, and he was standing on the aisle next to the podium as he carefully read the thesis in his hand. He took deep breaths, in hopes of lowering his heart rate.

Even though this wasn't his first time coming here, there was a difference between sitting in the audience and standing near the podium.

This was the temple of the international physics community.

In half an hour, he would be scrutinized by the world's top physics scholars.

Luo Wenxuan was nervous as he made his final preparations. Suddenly, he heard a familiar voice from the side.

“Your tie is too tight, it’ll affect your breathing.”

Luo Wenxuan looked over and was immediately surprised by who he saw.

“Professor?”

“You shouldn’t be this surprised, you do know that I always spend half of the year at CERN,” Witten joked. He smiled and said, “Not to mention, I’m here to attend an important report.”

Luo Wenxuan smiled awkwardly as he scratched his head.

“I’ll thank the lord if I don’t mess up this report.”

“Since Professor Lu chose you to do this report on his behalf, it means that he believes in you. If I were you, I wouldn’t be this nervous, just pretend like it’s an ordinary report.”

No sh\*t... You’re a Fields Medal winner, of course you wouldn’t be nervous. I haven’t won a Fields Medal before.

Luo Wenxuan didn’t say anything.

Witten paused for a second and said, “Speaking of which, how is Professor Lu doing?”

Luo Wenxuan: “He’s doing pretty good, but his research is as busy as ever.”

“Oh really? That totally sounds like him.” Witten smiled and said, “Actually, I don’t think he needs to be in such a hurry. He’s achieved a few lifetimes worth of success in just a few short years, and he still has decades to go... My suggestion is that he should switch to a healthier lifestyle and find some time to travel or something.”

Luo Wenxuan: “I’ll tell him your suggestions.”

“Not suggestions, just some personal thoughts.” Witten looked at Luo Wenxuan, who was still nervous, and said, “Also you, relax a little. If I recall correctly, it’s not your first time being here.”

Luo Wenxuan replied nervously, "But I've always been in the audience."

Witten smiled and said, "Well, not this time. I look forward to your report, don't disappoint me."

Witten patted his ex-student's shoulder and walked away.

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After Luo Wenxuan chatted with his former supervisor, he felt a lot calmer.

Soon, it was time for the report to begin.

Luo Wenxuan walked on stage and took out his phone. He dialed a number before placing it next to the microphone on the multimedia desk.

The venue gradually quieted down. He looked at everyone, cleared his throat, and said, "Due to various reasons, Professor Lu is not able to join us today. I will be conducting this report instead. If you have any questions, feel free to ask them now."

Someone immediately put up their hand.

Luo Wenxuan made an inviting gesture and spoke politely.

"Professor, please go ahead."

The old man with a wrinkled face and a crooked nose stood up while trembling. He stared straight at Luo Wenxuan and asked, "I just want to ask one question, what role did you personally play in the solution of the Yang-Mills equations?"

Luo Wenxuan looked at the audience. It seemed like a lot of people were curious about this question.

He adjusted his breathing and tried to speak fluently.

"I... mainly provided a possible idea proof. I also discussed with him how to solve the problem. Of course, as stated in the paper, the main argument was done by him alone."

The old man then asked, "Then does that mean your viewpoint is the same as his viewpoint?"

Didn't you say you only had one question?

Luo Wenxuan complained in his mind. He then explained, "Of course you can this so... unless Professor Lu has explicitly stated another opinion."

He pointed at his phone on the multimedia table and said, "He will be listening to this entire report. He will make contributions when necessary... He has the final say in this report."

The old man nodded and sat back down.

Luo Wenxuan sighed in relief.

"Then, please turn your papers to the abstract section, we'll start from the top..."

Even though Luo Wenxuan was nervous, once the report began, he quickly went into the zone.

He actually had previous experience reporting at CERN. When he was still a student under Witten, he had a lot of opportunities to report on CERN stages. However, those weren't particularly important reports, and there were no big-name attendees. Read more chapter on

Time quickly passed by.

An hour had already gone by.

Finally, Luo Wenxuan looked at the last PowerPoint page and sighed in relief. However, he didn't feel relaxed at all.

Even though the PowerPoint presentation was finished, the report wasn't finished at all.

Next up was the Qu0026A session, the most important part of the report!

"That's basically it... If you guys have any questions, you can ask me."

The second he announced that the report had entered the Qu0026A stage, hands immediately went up.

Luo Wenxuan looked at the same old man who raised his hand before and nodded.

“Please go ahead.”

The old man with the crooked nose trembled while standing up. He then asked in a steady voice, “On page 9, line 23, for the generalized polynomial interactions on  $R^2$  such as  $\lambda R(\phi) + \phi^2$ , there is a lower bound on  $R(\phi)$ , and  $0 \leq \lambda \leq 1$ . How did you determine the isolated single-particle spectrum?”

Luo Wenxuan sighed in relief when he heard this question.

This was a normal difficult question, but nothing too hard.

He cleared his throat and walked to the whiteboard. He then picked up a marker and began to explain while writing, “For the two-dimensional small coupling constant  $R(\phi)$ , the presence or absence of a bounded state depends on the specific case of  $R(\phi)$ . A field with a bounded state will have a mass operator  $M$ , which has an excitation spectrum. The mass gap  $(0, m)$  and upper gap  $(m, m_b)$ ... This is how we prove its existence.”

“As for the single-particle spectrum...” Luo Wenxuan suddenly stopped writing and speaking at the same time.

It was like there was something stuck in his throat, not a single word came out of his mouth.

The single-particle spectrum.

F\*ck sake!

How should I answer this?

A single drop of cold sweat rolled off his forehead.

His brain was turning a hundred miles an hour, and all of his brain cells were used on solving this problem.

However, it was to no avail.

There were whispering sounds in the venue, and Luo Wenxuan saw a glimpse of disappointment from some of the professors who were sitting in the front row.

He gulped and felt his limbs going limp.

What should I do...

He couldn't imagine what would happen if he screwed this up.

Even if Lu Zhou didn't care, he wouldn't be able to live with himself.

However, a sound came from the phone sitting on the desk, almost like an act of god. The four words gave Luo Wenxuan hope.

Lu Zhou was on the other end of the phone, and he spoke confidently.

"I'll read, you write."

Chapter 665 Done by Him Alone

The problem regarding  $R(\varphi)$  two-dimensional small coupling constant wasn't a particularly difficult problem. It only required a little abstract thinking... At least that was what Lu Zhou thought.

However, even though the problem itself wasn't difficult, not everyone could ask a question like this. After all, most people wouldn't notice this problem in the first place.

Lu Zhou thought for a bit and spoke.

"The existence of the isolated eigenvalue  $m$  of  $M$ , together with the Wightman axiom, provides a theoretical basis for the two standard forms of scattering theory, which are the wave operator method and scattering matrix elements. By applying these two scattering methods, we can conclude that there is a progressive state with an arbitrary number of particles..."

Luo Wenxuan immediately picked up the marker and began writing on the whiteboard.

Lines and lines of equations were neatly written, filling up the whiteboard.

The problem was slowly derived. Witten's frown went away, and he smiled. The old man with the crooked nose nodded his head.

The whispers in the venue were gone.

Luo Wenxuan took a deep breath and stopped writing.

“That’s the answer to the single-particle spectrum particle... Are there any other questions?”

The old man smiled.

“Nope, no more questions.”

When the people in the audience began to applaud, Luo Wenxuan could feel the praise and encouragement in the atmosphere.

Luo Wenxuan placed the marker on the multimedia table and sighed in relief. He smiled and his brain started working again.

He listened to the subsiding applause in the venue and couldn’t help but feel emotional.

Professor Lu really is nutty.

Thank god for him saving me.

But...

He’s the one that gets to do all the bragging.

After that, the scholars in the venue asked a lot of questions, which Luo Wenxuan answered one by one. Whenever Luo Wenxuan had some hiccups, Lu Zhou would give his own input.

After a final round of applause, the report came to an end.

When Luo Wenxuan walked off stage, the old man with the crooked nose walked over to him while carrying a cane.

“What a wonderful report.”

The old man looked at Luo Wenxuan and smiled kindly, which gave him even more wrinkles on his face.

However, Luo Wenxuan wasn’t too happy. Instead, he scratched his head awkwardly. After all, Lu Zhou was the one who answered this old man’s question.



“Yeah, it was okay.”

“Okay? No, it was great.” The old man smiled and said, “Also, when you see Professor Lu again, give him my thanks. I didn’t expect the unification of the forces would happen before I go to heaven. Originally, I felt a little worried about the theoretical physics industry... But now, it seems that my worries were superfluous.”

Luo Wenxuan replied politely, “I’ll give him your thanks... May I ask who you are?”

The old man put on his hat.

“Peter Higgs.”

He smiled at Luo Wenxuan, turned around, and left.

Higgs!

Luo Wenxuan stared at Higgs walking away, and it took him a while to process this.

He thought this old man looked familiar, but he didn’t expect it to be Higgs!

However, this was expected. The old man disappeared from the physics community in 2013, and all of the photos of him were from years ago. Luo Wenxuan first went to CERN in 2014...

“I should have asked for a signature,” Luo Wenxuan muttered to himself.

However, Higgs was long gone...

...

The thunderous applause in the CERN lecture theater spread throughout the entire physics community. Previously, the international physics community was still debating about the Yang-Mills existence and mass gap problem. However, all of the debates had now ended.

Three days after the CERN report, the Clay Mathematics Institute immediately issued a statement. The director of the Clay Institute, Professor Jaffe, announced that he accepted CERN’s judgment and said that the Scientific

Advisory Board was looking for a suitable time to present Lu Zhou with the Millennium Prize Problem award and prize money.

Also, Lu Zhou's phone call during the interview became a talking point in the physics community...

Three days after the report ended, 8 pm Switzerland time.

In China, it was already afternoon.

Luo Wenxuan was sitting on a hotel sofa near CERN. He was on a call with Lu Zhou.

"I might come back a bit later."

"Why?"

"Uh... I plan on going to France, try to get some inspiration." Luo Wenxuan said awkwardly, "Oh yeah, I'm running out of money, can you transfer me some, and I'll pay you back later?"

Lu Zhou could hear water flowing in the background. He smiled and shook his head.

"Forget about lending. Professor Carlson, the chairman of the Scientific Advisory Board, has been emailing me all day. If you go to France, help me get the million-dollar prize money at the Institut de France, and I'll split half of it with you."

Luo Wenxuan nearly fell off the sofa.

"What do you mean! Half is..."

Lu Zhou said nonchalantly, "It's fine. Besides, you helped me a lot. I should share the prize money with you."

Honestly, given that Lu Zhou had received hundreds of millions in scientific research funding, a million was nothing to him. He was only interested in the certificate issued by the Clay Institute.

After all, there was no such thing as too much honor. Only seven of these certificates existed, so it had a collection value.

However, Luo Wenxuan didn't agree. Instead, he argued with Lu Zhou.

"The Yang-Mills existence and mass gap problem is the final problem of the Millennium Prize Problems, and I did less than 10 percent of the work. This prize money doesn't belong to me, I don't want it!" Luo Wenxuan seemed to be hesitant. He paused for a second before saying, "I can go to the award ceremony for you, but I'm not taking the money."

Lu Zhou: "..."

Chapter 666 Miniaturization Breakthrough!

In the end, Luo Wenxuan still didn't accept Lu Zhou's proposal. He said he would bring the Clay Institute cheque back and hand it straight to Lu Zhou.

Lu Zhou thought about it carefully and felt like his proposal was indeed a bit ill-judged. Therefore, he went to the finance office of the Institute for Advanced Study and gave Luo Wenxuan US\$100,000 in travel expenses. He also wished Luo Wenxuan a good time at the red-light districts.

Luo Wenxuan didn't refuse this money. He even took a month-long holiday.

Looks like Luo Wenxuan plans on spending all of the money...

However, Lu Zhou didn't really care.

Many people had congratulated him over the past few days.

Some were from his students and colleagues at Princeton, and some were from people he met from academic conferences, as well as close friends.

Like Tao Zhexuan.

Lu Zhou worked closely with Tao Zhexuan when he was still researching the Goldbach's conjecture. They had always remained in contact. Both of them were the type of mathematician that was fluent in many fields, so they had a lot to talk about.

During their phone call, Tao Zhexuan said, "Congratulations, another Millennium Prize Problems solved by you. Clay Institute should update their

list of problems. By the way, can you tell me what problem you're working on next?"

Lu Zhou: "I probably won't research pure mathematics for a while. I'll probably focus more on applied mathematics."

Tao Zhexuan: "Like the moon landing?"

Lu Zhou: "That's one of them!"

Tao Zhexuan: "This sounds very exciting. My wife works at NASA. She always tells me about her work, which is very different from my field of study. If you succeed someday, remember to save me a seat, I haven't been to the moon yet."

Lu Zhou jokingly said, "If that really happens, I'll host an academic report on the moon."

After the call ended, Lu Zhou got up from his office chair and was about to go to the cafeteria for some lunch. However, the second he put his phone in his pocket, it started ringing again.

Lu Zhou looked at his phone and saw Sheng Xianfu was calling, so he immediately picked up the call.

"Hello?"

"Professor..."

Sheng Xianfu sounded a little off, so Lu Zhou immediately asked, "It exploded again? Did anyone get hurt? The equipment I borrowed is fine, right?"

Sheng Xianfu gasped and said, "What do you mean exploded again! We're not making bombs in here, do you really have to say that?"

Lu Zhou: "..."

I mean, fusion energy is scarier than bombs, right?

But...

At least they're safe.

Lu Zhou was speechless. He said, "Then why are you being so mysterious?"

Sheng Xianfu touched his nose and said, "I'm excited."

Lu Zhou: "Excited?"

"Yeah..." Sheng Xianfu nodded while holding his phone. He said in a trembling voice, "I think... we did it."

The phone went silent for two seconds.

Lu Zhou composed himself and took a deep breath.

"I'll come over right away, we'll talk in person."

Lu Zhou ended the call and called Wang Peng.

"Pick me up at the mathematics department."

Wang Peng only responded with one word.

"Ok."

After a twenty-minute drive, a black car with a red flag parked at the entrance of the research institute.

After Lu Zhou got out of the car, he passed the security check and walked straight toward a corner of the building.

Ever since the last security incident, the miniaturization of the controllable fusion laboratory group moved from the corner of the building to a temporary warehouse on the side of the institute. Even then, people would try to stay far away from the warehouse.

Lu Zhou walked to the laboratory entrance. Before he could open the door, he heard loud cheers coming from inside the laboratory.

"What is going on?" Lu Zhou quickly walked into the laboratory and saw how ecstatic Sheng Xianfu was. Lu Zhou immediately asked Sheng Xianfu, "What is going on?"

"The method of using liquid metal as a working solution works! According to our experimental data, when we used liquid lithium as the working solution,

we were able to apply a greater sound pressure on the bubble through the ultrasonic emission device! This bubble collapse volume is also more stable!" Sheng Xianfu said in excitement. His shoulders were shaking from the adrenaline.

When Lu Zhou heard that his idea worked, he couldn't help but smile.

However, he was more concerned about how they were able to succeed.

"Why did we fail last time?"

Sheng Xianfu replied excitedly, "Last time, we tried to increase the power of the ultrasonic generator, but the neutron fluence rate didn't increase. Then we found out that the problem was the deuterium gas mixture!"

Lu Zhou: "What did you guys do then?"

"We warmed up the gas!"

Lu Zhou immediately said, "You ionized and heated the gas?"

Sheng Xianfu's face was full of joy as he said, "That's right!"

Lu Zhou nodded, like he had a rough idea of what they did.

They heated and ionized the deuterium gas mixture and injected the liquid lithium through the air inlet. Even though the ionization temperature was only a few thousand degrees, which was nothing compared to the tens of millions of degrees when the bubble collapsed, the ionized gas expanded when driven into the liquid lithium. This gave it a higher surface area, which meant the energy transmitted by the sound to the bubble became larger.

Therefore, the bubble's instantaneous collapse temperature increased, which allowed them to meet the conditions of deuterium-tritium fusion!

Professor Li Changxia was standing next to Sheng Xianfu. He said with excitement, "We just found a more stable way to achieve controllable fusion! Once again, we're leading the world in fusion technology!"

"Yeah..."

Lu Zhou was staring at the black container in the middle of the laboratory. He couldn't help but feel fascinated.

The design of the Hall-effect thruster was taken from Debris No.3. Also, the five-axis CNC machine tool was stationed at the space shuttle assembly center. Xiao Ai could handle all of the production work. Now that they solved the miniaturization of controllable fusion, there was nothing to stop Lu Zhou from achieving his plan.

Of course, this “reactor bubble” was very simple. Both its energy efficiency and power output were far less than the large scale magnetic confinement fusion Pangu reactor. Because it was non-reusable, it also had higher costs.

However, this kind of miniaturized fusion energy device wasn't used for mass-energy production, so it didn't really matter.

Because of its high energy density and various advantages over traditional fission batteries, the pros outweighed the cons.

With the Hall-effect thruster design he got from Debris No.3, he could revolutionize the space industry, much like how the gunpowder revolutionized the military industry.

It was not an exaggeration to say that the entire world would change because of their discovery...

Chapter 667 Did It?

Haizhou.

China National Nuclear Corporation laboratory.

Academician Wang Zengguang was sitting in front of the experiment table while wearing a pair of glasses. He was meticulously staring at the blueprint in his hand while thinking intently.

The goal of the miniaturization of the controllable fusion project was to design a smaller ferrofluid electric energy source, specifically for the spacecraft. This task was now assigned to the China National Nuclear Corporation, which worked on the Pangu reactor.

Even though China National Nuclear Corporation wasn't optimistic about the miniaturization of controllable fusion, they still agreed to undergo this project.

There was only one reason.

Because, other than the fact that Lu Zhou had already brought them a victory, this was their responsibility.

The phone on the desk began to ring.

Wang Zengguang squinted his eyes. He was a bit annoyed at this phone call because it was interrupting his work. However, when he saw the name of the person calling, he immediately picked up the phone.

The call connected, and before he could speak, he heard them say, "Hello?"

"Academician Wang, is the ferrofluid electric energy generator done or what?"

Since Lu Zhou spoke in a half-serious manner, Academician Wang relaxed a bit and said, "Don't worry about us, we'll produce a prototype in a month. How about you? Is there any progress?"

The ferrofluid electric energy generator was only a small project, it wasn't anything particularly high tech. The main problem was still the reactor itself. If they couldn't build a reactor, the ferrofluid electric energy generator would be useless.

Lu Zhou smiled and said, "What do you mean if there's any progress? Does completing the project count as a type of progress?"

The other side went silent for a few seconds.

After a while, Academician Wang spoke.

"Um, I didn't hear you, what did you just say..."

Lu Zhou raised his voice and spoke clearly.

"I said, we've already solved the miniaturization of controllable fusion!"

When Lu Zhou heard a bang sound through his phone, he moved his phone away from his ear and looked at his phone screen.

Did he drop his phone?

He's not that surprised, is he?



Academician Wang quickly picked up his phone from the ground and began asking a string of questions.

“Solved? Already? Did you solve the heat dissipation problem? That thing is going to space! You didn’t just build a smaller version of Pangu, did you?”

Lu Zhou smiled and said, “The reactor isn’t using magnetic confinement fusion, but rather a combination of inertial confinement fusion and fast ignition... I can’t convey it clearly through the phone, come by when you have the chance.”

Academician Wang: “I’m coming over right now!”

The phone call ended.

...

The China National Nuclear Corporation’s nuclear fusion research center was in Haizhou, right next to the Pangu reactor. This was so that it could provide technical support for East Asia Energy and be protected by the military troops.

Jinling was halfway across the state from Haizhou, making this trip very inconvenient.

However, the next morning, Academician Wang Zengguang still brought two of his students to the Jinling Institute for Advanced Study.

Also, Academician Wang wasn’t the only person that came, Director Li also came.

“Professor Lu, long time no see!”

Director Li looked at Lu Zhou with a smile on his face as he reached out his right hand.

Lu Zhou shook his hand and smiled as he said, “It’s an honor, Director Li. It hasn’t been that long, right?”

When Academician Wang saw that Director Li was about to make some small talk, he was getting impatient, so he interrupted them.

“Okay, go have your small talk later, ok? Where is it? I want to see it.”

Director Li smiled and said, “Uh... Mr. Wang is correct. Professor Lu, let’s chat inside?”

Lu Zhou smiled and turned around.

“Come with me.”

With Lu Zhou leading the way, the group arrived at a laboratory located at the corner of the institute.

Located in the middle of the laboratory was the experimental reactor, which was designed by the miniaturization of controllable fusion project team.

Academician Wang looked at the black cylinder, which had a diameter of around two meters. He looked at the chaotic wires and electrical circuits. He stood there with his mouth wide open.

After a while, he finally said, “You plan on using this thing... for nuclear fusion?”

He started to think.

Can this thing...

Even achieve nuclear fusion?

The two PhD students standing behind Academician Wang were also in disbelief.

Not only does this thing look ugly as hell...

But it seems a little small...

Because they needed to add an insulation layer and a neutron shielding layer, a two-meter diameter cylinder would only be able to accommodate a two-centimeter wide nuclear core.

When Lu Zhou saw that Academician Wang was in disbelief, he chuckled.

“It does look a little simple, but it’s compact and has everything we need. After all, this is only the experimental reactor. When the time comes, we’ll adjust the components.”

Lu Zhou paused for a second and didn't bother explaining the principle behind it. He looked at Sheng Xianfu and said, "Can you please give Director Li and Academician Wang a demonstration?"

"Yes, sir!"

Sheng Xianfu walked up to the reactor and ordered the two researchers next to him.

"Start the heating machine!"

"Yes, sir!"

The heating machine was turned on, and the reactor began to heat up. When it reached around 180° Celsius, the lithium material inside the insulating layer gradually began to melt into a liquid.

After that, a deuterium-tritium gas mixture was injected into the ionization chamber, before turning into plasma. The liquid lithium was like a machine gun as it was shot into the nuclear core.

The second the bubble collapsed to its minimum volume, the bubble's temperature instantly increased into the hundreds of millions of degrees.

However, this wasn't the most shocking part.

Academician Wang Zengguang and his two students stared at the neutron detector value, which was increasing.

Director Li was muddled. He gulped and asked softly, "Is it... a success?"

Academician Wang nodded. His voice was trembling as he confirmed, "It is!"

Chapter 668 How Did You Guys Do It?!

Since they didn't connect the generator yet, the heat could only be transferred through the water heat exchange system. However, the energy generated from the system far exceeded the required input energy for the system. Therefore, the neutron's proliferation rate was self-sustainable. From this standpoint alone, this fusion reactor was undoubtedly a success!

Once the ferrofluid electric energy generator was installed, the ultrasonic device would no longer require an external power supply. Only a large lithium-sulfur battery would be needed to melt the lithium, and the reactor could rely entirely on the electrical energy for operation.

When the experiment finished, Academician Wang immediately asked Lu Zhou, "How did you guys do it?"

Lu Zhou smirked and gave a simple answer.

"Sonoluminescence."

Wang Zengguang was stunned. He squinted and said, "I thought... that pathway wasn't possible?"

Because magnetic confinement fusion and inertial confinement fusion fell into a bottleneck, the research on sound fusion was popular during the 1980s and 1990s. However, even to this day, this research pathway had been controversial.

Not only were there two different experimental reports, but the main reason for this controversy was because there wasn't a clear conclusion in the physics community about the origin of the natural phenomenon of sonoluminescence.

"There are two reasons why a technical pathway isn't feasible. One is because it is inherently wrong, and the other, is because the method is wrong. Twenty years ago, there were plenty of problems with it came to sound fusion research. The theoretical ground wasn't built yet. People were just doing experiments blindly and collecting empirical data to find ways to achieve fusion reaction, which is no different than trying to find a needle in a haystack."

Lu Zhou paused for a second. He picked up a marker from the desk and wrote a few lines of equations on the whiteboard.

"Only after we determine the quantitative relationship between the electromagnetic force and strong interaction, can we build a phenomenological model that balances the relationship between the two. Then, we can use this phenomenological model to find the most optimal experimental method."

Academician Wang stared at the whiteboard for a while and frowned.

“Are you talking about the electrostrong interaction?”

Even though he wasn't a theoretical physicist, he was in the nuclear physics and nuclear engineering field. He was up to date with physics research, especially ones regarding nuclear power.

Lu Zhou looked at Academician Wang and nodded.

“Correct.”

On the surface, it might seem like the reason this sound fusion machine was successful was because of Sheng Xianfu and others, who added a small ionization chamber between the air inlet and the nuclear core. This was to heat the deuterium-tritium gas mixture and allow them to inject the ionized gas into the liquid lithium.

However, in fact, whether it was the use of liquid lithium or the calculation regarding a series of nuclear fusion parameters such as bubble density, surface area, and sound pressure, all of these were possible only because of the electrostrong interaction model.

This was just like how the plasma turbulence model was related to magnetic confinement fusion.

Without Lu Zhou's prior theoretical work, who would have known how long it would take for someone to build a sound fusion machine...

Director Li from the State Administration for National Defense couldn't wait any longer. “Can we put this on an aircraft carrier?”

Lu Zhou paused for a second and smiled.

“I don't know a lot about aircraft carriers. You'll have to consult with the naval nuclear engineers. However, even though the power efficiency and energy utilization are much lower than the Pangu's, they are still stronger than a traditional nuclear fission reactor... As long as it's properly implemented, we should be able to put it in an aircraft carrier or a submarine.”

Director Li sighed in relief and looked solemnly at Lu Zhou.

“On behalf of the country, I'd like to say thank you!”

Lu Zhou smiled.

“You’re welcome.”

Lu Zhou had been thanked too many times; he didn’t even react to it anymore.

However, he still felt pretty good when he heard Director Li’s sincere tone.

Even though he wasn’t interested in military technology, he was still happy that he could contribute to the safety of the country.

As for how to implement this into aircraft carriers or submarines, that would be the responsibility of the Navy Equipment Research Institute. The Jinling Institute for Advanced Study would provide some technical support, but most of the design work would be done by the military experts.

Of course, all of this wasn’t for free.

Since the miniaturization of the controllable fusion machine was funded by the Jinling Institute for Advanced Study, which was a private research institute, the intellectual property rights would be in the guaranteed form of national defense patents.

Even though the profit from licensing to the domestic navy would be far less than the profits from licensing lithium-sulfur battery patents, Lu Zhou’s intention for this research project was never to make money, so he didn’t care that much.

“So far, this fusion machine is mainly going to be used on spacecraft. After all, we still need to conduct more experiments.” Lu Zhou looked at Academician Wang and said in a serious manner, “So, I’m assuming you’ll take care of the ferrofluid electric energy generator.”

Academician Wang nodded solemnly.

“Don’t worry, I’ll definitely give you an answer in two weeks!”

Lu Zhou smiled and nodded.

“I’m happy to hear this.”

After Academician Wang witnessed the experimental sound fusion machine, he left Jinling Institute for Advanced Study and went back to Haizhou with his two students.

The most critical part of the project had been completed. All they had to finish now was the ferrofluid electric energy generator.

He had to complete the ferrofluid electric energy generator design as soon as possible so that he could efficiently convert the heat energy into electrical energy!

As for Director Li, after he ate dinner with Sheng Xianfu and Lu Zhou, he left Jinling and returned to Beijing, bringing back the news of the miniaturized controllable fusion breakthrough.

This involved national security, so the fewer people who knew about it, the better.

Therefore, he had to personally report this to the senate...

Chapter 669: For the Greater Good

Beijing.

A pale-skinned old man was sitting inside a rustic house. He meticulously read the newspaper in his hands. When he read to a certain point, he couldn't help but frown. Suddenly, he heard footsteps.

He looked up and saw Director Li walking toward him, escorted by guards. The old man looked at Director Li and smiled.

"What's up? It's so early in the morning."

"I just got here from Jinling." Director Li took a deep breath and tried to restrain the excitement in his heart.

The old man could have guessed what this was about, but he still asked.

"What is going on in Jinling?"

"The miniaturization of the fusion experimental reactor... With Professor Lu's help, it was successful!"

The old man wasn't the only one who was surprised, even the guard escorting Director Li was astonished.

The old man smiled and put away his newspaper. He then stood up from his chair.

He walked next to Director Li and looked at the big willow tree in the courtyard. After a while, he began to speak emotionally.

“It’s an honor to have a scholar like Professor Lu in our country!”

“Yeah...” Director Li felt emotional too.

Director Li totally agreed with the president.

Fusion nuclear energy was now connected to the grid, strengthening the weak manufacturing industry. People’s lives were made better by this source of endless energy. Lu Zhou had made a great impact on this country.

This was enough to make him remembered in history.

The old man thought for a bit before he suddenly asked, “Who knows about this?”

Director Li replied in a serious tone, “Other than the researchers, only the China National Nuclear Corporation Chief Engineer Wang and two of his students know about this... I already told Professor Lu to keep this thing quiet.”

Everyone who knew about this used to be part of the STAR stellarator project, so they were all trustworthy people. Keeping a secret was no problem.

The old man nodded with approval.

“Good, keep this thing quiet.”

Fusion research by the countries around the world had always been stagnated, and the negotiations for controllable fusion had nearly come to an end.

Even though the experimental reactor in California was walking the same technical path as Pangu, they still had several major unsolved problems. Even though China had temporarily relaxed its SG-1 superconducting materials exports, California’s superconducting magnet test results didn’t meet its expectations.



As for ITER, they were still the same. It was all talk and no walk.

Western countries had gradually begun to lose confidence in their own researchers, and they were eagerly negotiating with China. China, on the other hand, was very happy to negotiate in exchange for technology and governance.

Letting other countries know about China's sudden breakthrough in fusion miniaturization technology would undoubtedly have a negative impact on the on-going negotiations. The western countries would become greedier and start bargaining for the miniaturization technology... Also, the miniaturized fusion reactor was much more... dangerous.

When Director Li saw the old man's look of approval, he relaxed a bit. He then sighed in relief before saying, "Then what about aerospace?"

Old man: "Aerospace?"

Director Li paused for a second and decided to express his concerns.

"Yeah... if we put a fusion battery on a spacecraft, I'm worried that the news will leak out. If an accident happens, our technology might even be taken."

This was totally reasonable. After all, aerospace was a chaotic field. As long as something was in the sky, there was a chance it could fail. It would be fine if the battery were to land on China's soil, but if it were to land in the sea or foreign soil, then it would be a lot of trouble.

The president smiled and replied, "It's good to be careful, but we can't be overly cautious. Besides, the miniaturization of controllable fusion was meant for aerospace implementation in the first place, do you really think it's a good idea to pause the project because of this?"

"Uh... Yes, you're right, I was being negligent." Director Li looked down.

The old man looked at him.

"You don't have to worry about Professor Lu, just make sure you tell the Navy Equipment Research Institute about the technology. It's too early to implement the technology into aircraft carriers, but I think we can put it in a submarine!"

Director Li nodded and remembered every word spoken by the old man.

“Yes, sir!”

...

On the other hand, Lu Zhou was at the Institute for Advanced Study. He invited the researchers of the miniaturized fusion project to a conference room for a brief meeting.

“The State Administration for National Defense has contacted me. The miniaturization of controllable fusion technology is not suitable for public release. Let’s keep it a secret for the time being. We won’t have a big ceremony or anything, we’ll just have a celebratory dinner.”

Sheng Xianfu smiled and said, “We just had a big ceremony at the beginning of the year.”

Professor Li Changxia nodded.

“Yeah, we don’t need to celebrate. We’re doing this for the greater good.”

A few other researchers also nodded.

Even though it was a shame they couldn’t write this accomplishment on their CV, being able to participate in a historical project like this was honorable in and of itself.

Besides, most people sitting here were still on the younger side. The oldest was only in their forties. Most people could live to see the day this secret was released, which was usually thirty years away.

Even if they couldn’t see their results released to the world, it would be engraved on their tombstones.

Therefore, they had nothing to worry about...

“Also, regarding our next step.”

Lu Zhou looked at Sheng Xianfu.

“The miniaturization of controllable fusion project will gradually disappear. We’ll announce that the experiment was a failure and that we didn’t discover any results... You can go back to the Southwestern Institute of Physics or go

to the East Asia Energy company. Tell me where you want to go, and I'll write you a recommendation letter."

Sheng Xianfu spoke without hesitation.

"I'll go back to the Southwestern Institute of Physics. I was going to go back there after Pangu was completed."

Professor Li Changxia patted Sheng Xianfu's shoulder and said, "I understand, you want to show off to your old colleagues?"

Sheng Xianfu subconsciously rubbed his nose and said, "What do you mean to show off, am I that kind of person?"

"I'll write you a letter on behalf of the China National Nuclear Corporation and the Ministry of Science and Technology. You'll receive the letter within a week." Lu Zhou smiled and looked at Li Changxia. He then asked, "What about you? Do you want to return to Yuhua, East Asia Energy, or some other research institute?"

Professor Li Changxia paused for a second.

"I want to stay here."

Surprised, Lu Zhou looked at him and asked, "Stay here?"

"Yeah." Professor Li Changxia nodded and said, "I'm not suitable for a corporation, and Yuhua... The research space is limited. I want to stay here."

Lu Zhou said, "There are a lot of research institutes in China, so you don't have to stay here."

Li Changxia waved his hand and said, "What research institute in China is nuttier than you?"

"Okay then." Lu Zhou thought for a while and said, "Jin Ling University wants to open a nuclear physics institute, which is to be separated from the Institute of Physics. This is to help train the new wave of Chinese nuclear physicists. Since you worked at the STAR Stellarator Research Institute before, you should be the director of the Institute of Nuclear Physics."

Li Changxia had a sincere smile on his face.

“Thank you.”

“You’re welcome.” Lu Zhou smiled and said, “This is the least you deserve.”

Chapter 670: Assembly Center Completion

On the outskirts of Jin Ling City, a Volvo 18 wheeler drove on the concrete roads, creating a dust cloud behind.

Normally, a truck like this would have been stopped by traffic cops for driving on concrete roads.

This truck could drive smoothly because there were two military vehicles escorting it, one at the front and the other at the back.

Most people would walk the other way when they saw this intimidating scene.

The cars headed east and entered the eastern area of a high-tech zone. They stopped at a hundred-acre factory.

A man wearing a hard hat and work clothes walked to the truck and spoke a few words with the guy sitting in the passenger seat. Then, he began to gesture the military cars to enter the factory.

The factory company’s name was erected near the gate.

“Star Sky Technology Space Shuttle Assembly Center.”

The name sounded quite futuristic.

A black sedan with a red flag was parked near the factory entrance.

Wang Peng turned off the engine and glanced at the military cars. He couldn’t help but wonder.

“You really plan on building a space shuttle?”

Lu Zhou: “Of course, why?”

“Nothing... I thought aerospace was just for scaring the United States.”

After all, Wang Peng's family had ties to the government, and he had heard rumors before.

He heard that, on the surface, the moon landing conference was to lay out China's plan regarding controllable fusion, but in fact, it was only used to scare the United States and Europe. He even heard that the Ministry of Science and Technology planned to make Lu Zhou the chief designer, but Lu Zhou insisted on only being a consultant.

Wang Peng had to admit, scare tactics like these were useful.

After all, the idea of a "mass driver" scared people shitless. If the mass driver could really send tons of load into low-earth orbit, it could even be used for sending mail packages...

Even though China had no intention of doing this, other countries were still worried.

Especially since Lu Zhou was a chief consultant...

"No way, I could never intentionally try to scare people as a political play, I'd rather just do it legitimately." Lu Zhou smiled and said, "Okay, no more joking around, I actually thought about building a spacecraft for a long time."

"I always thought you were a mathematician."

"I am a mathematician."

Lu Zhou didn't spend long in the car. After he got out, he walked straight to the assembly center.

Because of Xiao Ai, the entire assembly center could theoretically achieve a complete automated production process. Other than the technicians responsible for equipment, electronics, and maintenance, the only necessary staff members were those from the security department.

There were twice as many security members as there were normal employees.

Being able to automate a production process to this extent was rare, even in western countries.

Once the processing materials arrived, the assembly center could get to work.

Lu Zhou planned on building an independent and research department here, as well as a dedicated astronaut training center. However, he couldn't do all of this at once since it would take a long time.

Lu Zhou was inside the factory.

He looked at the rows of industrial robots and took a photo. He then sent the photo to Xiao Ai and smiled.

“What do you think, do you like your new toy?”

Xiao Ai instantly replied.

[Yeah! Super satisfied! Thank you, Master!]

Lu Zhou: “That's good... Oh yeah, don't forget what I told you. Don't make anything weird... Also, build the space shuttle according to the drawings, don't add any extra components.”

Lu Zhou got the space shuttle blueprints from the China Aerospace Science and Technology Corporation. The engine and fuel tank were modified, while the rest was basically an exact copy.

Even though China had never built a working space shuttle, that didn't mean they didn't have space shuttle researchers. China only stopped space shuttle research after the Soviet's failure.

There were a lot of advanced technological concepts in the 863 initiative. The reason some technical routes were abandoned wasn't that they weren't good concepts, but it was because it didn't align with the times.

If they could invent a high energy density power storing device and power source, then they could totally replace traditional chemical rockets and significantly increase the thrust.

Fortunately, Lu Zhou had already solved both of those problems.

Xiao Ai: [Don't worry! Xiao Ai will take care of it! (๑•̀ㅂ•́)و✧]

Lu Zhou saw Xiao Ai's reply and couldn't help but smirk.

Even though this thing acted a bit retarded sometimes, it was still backed by total obedience.

He heard footsteps behind him.

Lu Zhou looked over and saw Chen Yushan at the factory entrance. She was walking toward him.

Lu Zhou looked at her and put his phone away. He then smiled and asked, "Why are you here?"

Around March, the headquarters of Star Sky Technology was moved from Shanghai to Jinling. The new office was in Jinling's CBD, not the high-tech zone. It took at least an hour to drive from the city to the high-tech zone.

Chen Yushan stood next to Lu Zhou and smiled.

"Well, I'm still the CEO of Star Sky Technology, how could I not come on such an important day? What do you think? Are you happy?"

Lu Zhou smiled and said, "I'm very happy, thanks."

"You're welcome." Chen Yushan smirked and jokingly said, "Speaking of which, I've never been to space. If you can really make this space shuttle work, maybe we can take a day-trip to the moon."

Lu Zhou: "A day trip is too short, we have to stay for at least a couple of days."

Chen Yushan said, "Then we should build a hotel on the moon."

Lu Zhou smiled as he said, "Your ambitions are... interesting."

Chen Yushan couldn't help but roll her eyes.

"What do you mean interesting, I'm a businesswoman! I'm thinking about business!"

"Sure sure, whatever."

Chapter 671: From Nothing to Something

Lu Zhou stayed at the newly completed assembly center for the entire day. The customized server equipment was delivered to the assembly center.

Lu Zhou watched the technicians set up the server equipment. After that, he transferred Xiao Ai into the assembly center servers.

By the time everything was completed, it was already night time.

Lu Zhou booked dozens of tables at the most luxurious hotel near the Purple Mountain area. He invited the engineers and construction workers, as well as the staff from the assembly center, for a huge dinner. This was his way of showing his thanks.

After the big meal, Lu Zhou got into his car and went home. He was about to fall asleep on his bed when Xiao Ai suddenly sent him a message.

[Master, you have mail!]

Lu Zhou looked at the sender's address and saw that the email message was from the China National Nuclear Corporation. He immediately opened the email message.

The content was very short, only one sentence.

[The ferrofluid electric energy generator is done.]

Lu Zhou climbed out of bed and put on some slippers. He went into his study room and began to type on his computer.

[Encrypt the blueprint and send it to me.]

After five minutes, Academician Wang replied.

[Okay.]

Soon after, Lu Zhou received the blueprints.

Lu Zhou downloaded the large attachment and decrypted the file. He opened the folder and quickly scanned the blueprints sent by Academician Wang.

Overall, the design of this ferrofluid electric energy generator was heavily influenced by the Pangu's ferrofluid electric energy generator. Whether it was the air inlet or the superparamagnets, the design was similar to that of Pangu's.



However, even though there were many similarities, China National Nuclear Corporation had to make a lot of improvements and changes.

Especially for the ionization chamber design. Because they adopted a curved ionization chamber design, it reduced the generator size by at least 20%. However, they had to sacrifice a bit of energy conversion efficiency, but this sacrifice was acceptable for use on a space shuttle.

After Lu Zhou looked at the blueprints, he thought for a while before saying, "Xiao Ai."

Xiao Ai: [Yes? 0.0]

Lu Zhou used his mouse to draw a circle on the computer screen. He said, "This ferrofluid electric energy generator, can you build it?"

Xiao Ai: [No problem, Master, don't worry! (๑•̥̥̥•̥̥̥)✧]

Xiao Ai sounds confident, but can it really do it?

Lu Zhou hesitated for a bit, but in the end, he decided to place his trust in Xiao Ai.

"Okay then, I'll ask the supplier to send the materials. Try to see if you can manufacture this thing."

Xiao Ai: [I promise I can do it! ( $\geq \forall \leq *$ ) ♪]

...

At the same time, in Beijing, thousands of miles away, a car slowly entered the courtyard of the Navy Equipment Research Institute.

Under the escort of several intelligence personnel, a USB containing all of the information regarding the miniaturization of controllable fusion quickly passed the guards and entered into the Navy's ship laboratory.

Unlike the ferrofluid electric energy generator, information regarding the miniaturization of controllable fusion energy could only be transferred through this primitive method. This was the most secure method, and it wouldn't leave any traces.

It was late into the night.

Academician Zhang Jianrong was sitting in a quiet laboratory with a pair of glasses on his face. As he meticulously read the freshly printed documents, his eyebrows furrowed from time to time.

After a long time, he gently put down the blueprints.

“So this is... the experimental reactor model for the fusion battery?”

“Yes,” said the man who was standing next to the academician. He nodded and said, “We’ve already sent the package, please sign here.”

Zhang Jianrong didn’t say anything. He picked up a fountain pen and signed the document. After that, he gave the document back to the man.

The man nodded turned around, and he immediately began to leave the laboratory.

He was from the People’s Liberation Army General Staff Department. After he left, the tense atmosphere in the laboratory disappeared.

A researcher wearing glasses was sitting at the experiment table next to him, and he couldn’t help but whisper, “I can’t believe it... The Pangu project collaborated with nearly a hundred nuclear physics institutes around the country. They spent an entire year to complete the project. I can’t believe this pillar with a diameter of less than two meters is able to solve the problem.”

“The hardest part of any technology is creating something from nothing,” another researcher said. “The fusion battery is different from the real fusion reactor, whether it’s power generation or energy efficiency.”

“Regardless, with this technology, our battleships will see a huge improvement.”

“Yeah.”

The blueprints were all in Academician Zhang Jianrong’s hands. The other researchers could only sit around and chat.

As usual, Mr. Zhang would only assign the researchers their jobs after the project had begun. Each person’s task was different. Before that, the blueprints were strictly confidential.

Academician Zhang Jianrong stared at the blueprints for a long time. Unlike usually, he didn't give the researchers anything to do. However, he suddenly stood up from his chair.

"I'm going to Jinling tomorrow."

The researchers who were chatting looked at the academician in surprise.

"To Jinling?"

Zhang Jianrong nodded seriously.

"Yes."

"This is an entirely new technical route, and it's very different from the magnetic confinement fusion path that we've been trying to achieve."

All of the researchers in the laboratory looked astonished.

An entirely new technical route?

Prior to this, all of them just thought that Professor Lu was trying to make a smaller magnetic confinement fusion device. They didn't expect him to go on another entirely different technical pathway.

"I have to be safe. I have to talk to Professor Lu in person. I'll bring a few people over. As for everyone else, be on the lookout. I'll arrange work soon."

The researchers who were sitting at the experiment table nodded subconsciously.

"When are you leaving?"

Zhang Jianrong answered without any hesitation, "Now."

Chapter 672: It Is Time to Show the Real Technology

In many cases, the reason why Chinese scientific researchers produced little to no results wasn't entirely the researchers' fault. A lot of the time, it was

because of the industry. After all, having a blueprint was different from having the real thing.

Whether it was the development of science or the development of technology, they both had to move forward coherently.

Lu Zhou hoped he could focus on the theoretical research side and let other people turn his research into a real product.

However, if he only did theoretical research, it might take him decades to see his research come to life.

The next morning, outside the space shuttle assembly center.

After Wang Peng parked the car, he looked at the building before casually asking, "What do you plan on doing after the space shuttle goes into space?"

When Lu Zhou heard this question, he smiled.

"I don't know yet, probably an astronomical observatory station."

"Astronomical observatory station?" Wang Peng looked at him and said, "When did you become interested in the stars?"

"Astronomical observatory stations aren't only used for stars. There's a branch in physics called astrophysics. For theoretical physics, experimenting is one way to prove conclusions, but it isn't the only way. Especially for problems that are beyond our technical knowledge, the more economical and practical thing to do is to look for clues in space."

Actually, many great discoveries were born this way.

For example, the famous gravitational wave was the result of an astrophysics observation. The existence of gravitational waves was first observed by looking at two black holes, which were 1.3 billion light-years away, being merged into one.

Wang Peng: "Sounds like finding a needle in a haystack."

"That's just how scientific research is." Lu Zhou took off his seatbelt and asked, "Do you want to look inside with me?"

Wang Peng: "Is it appropriate for me to go inside?"

Lu Zhou smiled.

“Come if you want. It’s just some metal machines, nothing inappropriate.”

After Wang Peng got out of the car, he followed Lu Zhou into this mysterious space shuttle assembly center.

Looking from the outside, the assembly center was protected by high walls, barbed wire, and security guards carrying high power electric batons. However, once they went inside, the assembly center was no different from any other large machining center.

They walked all the way to the center of the factory.

A staff member wearing a hard hat walked toward the two.

“The materials from Zhongshan New Materials have arrived, this is the list of materials.”

After Lu Zhou was handed the document by the staff member, he glanced at the document and confirmed that all of the necessary materials had arrived. He then picked up a pen and signed his name.

“Tell the people in the warehouse to bring the materials here.”

“Okay!”

The staff member nodded and quickly walked toward the warehouse.

Lu Zhou gestured to Wang Peng, and they continued to walk around the factory.

Wang Peng looked around the factory building.

The last time he came here, everything was still inside various boxes. But now, they were neatly placed around the building.

The only thing he didn’t understand was, all the things were here, but where were all the workers?

*Are these machines going to work by themselves?*

Wang Peng was confused. He looked around the factory before looking at Lu Zhou.

“Work is starting today?”

Lu Zhou nodded and gave a simple answer.

“Yeah, China National Nuclear Corporation sent the blueprints here yesterday, I plan on testing them.”

Wang Peng couldn't help but ask.

“Then how come there aren't any workers here?”

Lu Zhou smiled and replied, “Because we don't need them.”

Wang Peng paused for a second. He didn't realize what was going on.

However, soon after, he knew what Lu Zhou was talking about.

He saw a large automated logistics vehicle that was parked at the unloading point.

Then, a group of small AGV logistics vehicles moved like ants, swarming to the pile of materials. They began to grab, transport, and place the materials. It was a dazzling sight.

However, this was just the beginning.

The AGV vehicles were like red blood cells in blood vessels, sending important chemicals to the “organs”.

Soon after, an alloy sheet was molded into a generator set casing. The casing was then transported to another industrial robot.

After that, a few robotic arms began to fill the interior of the metal shell with the generator set components, such as the stabilizer and heating device. They worked at an incredible speed. After that, they quietly waited for the magnetic coil robot to send over its component...

The production process was filled with neural networks, deep learning, and sensors. Every part of the production line was completely controlled by artificial intelligence, which maximized its efficiency.

The only place in the production line that needed physical workers was the loading and unloading of large logistic vehicles.

Wang Peng stood next to Lu Zhou. His facial expression didn't change much, but deep inside, he was totally astonished.

After a while, he murmured, "If these robots become mainstream, people are all going to lose their jobs."

Lu Zhou smiled.

"You're overthinking it. Even in developed countries, it would be impossible to completely popularize this kind of equipment. Also, if this becomes popularized one day, it might be a good thing."

Production technology improvements would move labor workers to a higher level. Even though this would bring a series of social problems in the short term, it would benefit the development of civilizations in the long run.

Lu Zhou was about to say something when a technician walked into the factory.

"Professor, someone outside is looking for you."

Lu Zhou looked at the technician.

"Who?"

"They said they're from the Navy Equipment Research Institute. I think the leader is Academician Zhang Jianrong."

*Academician Zhang Jianrong?*

Lu Zhou vaguely remembered hearing this name before, but he forgot from where.

He remembered that this old man seemed to be in battleship power research and was an alumnus of Fuyang Institute Construction Material Laboratory. He was also good friends with Li Jiangang.

Regardless, since the old man came all the way from Beijing, Lu Zhou should give him some respect.

Therefore, Lu Zhou reluctantly walked away from the factory machines and looked at the technician.

“Bring me there.”

Chapter 673: You're My Teacher

The reception room at the assembly center...

An old man with a head of white hair sat on the sofa. Even though he was over eighty years old, he gave off a sharp and bright demeanor.

In addition to this old gentleman, there were two other young researchers sitting next to him. Even though their demeanors weren't as strong as the old man's, it was obvious they were not just ordinary scientific researchers.

Therefore, even without an introduction, Lu Zhou could immediately tell which person was Zhang Jianrong.

He suddenly remembered where he first heard about this old man.

At that time, he was chatting with Academician Wang Zengguang from the China National Nuclear Corporation after eating dinner with him. They talked about the times when the China National Nuclear Corporation cooperated with the Navy Equipment Research Institute, and Wang Zengguang told Lu Zhou about Zhang Jianrong.

Back in the day, when China's economic development was at its peak, Zhang Jianrong and 29 other experts from all over the country were assembled to research the first generation of nuclear-powered submarines. What was even more amazing was that the only references they had were two blurry photos and a children's submarine toy from the United States...

Even now, this amazing story was still widely talked about.

When Lu Zhou saw Academician Zhang stand up, he smiled and reached out his hand.

“Hello, Academician Zhang, it's a pleasure to meet you!”



“Hello.” Professor Zhang Jianrong shook Lu Zhou’s hand and said, “It’s my pleasure. That thing you did in Haizhou ignited the hopes of many young children. Even though I wasn’t there, I could still feel the sensation through my TV screen!”

Even though this old man was an academician, there was a military vibe to him. However, he didn’t seem arrogant. On the other hand, he was likable.

“You’re too kind.” Lu Zhou smiled and said, “May I ask why you came all the way from Beijing?”

“Yes.” Academician Zhang Jianrong nodded and said, “I read the documents on the miniaturization of controllable fusion for a long time yesterday. I also discussed with my two assistants for a long time, but I still don’t have a clue about the overall design... I have never heard anyone talk using ultrasonic waves for fusion ignition.”

The miniaturization of the controllable fusion reactor was one of the key projects of the Navy Equipment Research Institute. The Navy Equipment Research Institute had been working with the China National Nuclear Corporation regarding the miniaturization of the Pangu reactor, in hopes of implementing it on battleships.

However, their project wasn’t going well. At least for now, they hadn’t made any progress.

On the other hand, Lu Zhou had developed this new sound fusion technology.

The old man paused for a second before he said in a solemn tone, “You’re my teacher, I hope you can aid me in understanding this technology.”

Lu Zhou was a little embarrassed at how polite the academician was.

“I’m no teacher, but I can help you with the parts you don’t understand.”

The old man immediately took out a notebook from his pocket and handed it over to Lu Zhou.

“These are some of the problems I found while reading the blueprint and documents. I hope you can answer some of my questions.”

Lu Zhou took the notebook from the old man and began to flip through the notebook.

Time quickly passed by.

After around two minutes, Lu Zhou flipped the notebook to the final page and suddenly closed the notebook.

“How about this,” Lu Zhou handed the notebook to the old man and said, “I can answer the questions, but that’s all talk. How about I take you to see the real thing?”

The three people in the reception room were all stunned.

Especially the two researchers, they looked astounded.

Lu Zhou could tell a lot from their facial expressions.

Just like Lu Zhou had expected, the Navy Equipment Research Institute didn’t believe he really solved the miniaturization of controllable fusion at all.

Even though Academician Zhang didn’t doubt Lu Zhou, the two researchers who came with Academician Zhang were full of disbelief and doubt.

Of course, they didn’t doubt Lu Zhou himself, only Lu Zhou’s claims.

Even though Lu Zhou was a Nobel Prize laureate and Ling Yun medalist, the concept of sound fusion sounded a bit too unrealistic.

Especially since the reputation of cold fusion hadn’t been very good, and a lot of countries failed at cold fusion in the 1980s. Therefore, people’s first instinct was that cold fusion was a hoax.

The matter of fact was that it was true that the vast majority of research institutions or individuals who were researching cold fusion, were doing so just to receive research funding. However, that didn’t mean cold fusion was impossible.

Presupposition in scientific research was a deadly sin.

After all, a lot of things that seemed impossible a few hundred years ago, had now become part of their world...

In some sense, sound fusion wasn't a subset of cold fusion. After all, the instantaneous temperature peak from the bubble exceeded the temperature inside the sun's core, so it was not exactly "cold". However, the nuclear core was operating at a temperature of 1000-1300° Celsius, which was much cooler than the millions of temperature nuclear core inside Pangu.

Because of this, after the Navy Equipment Research Institute researchers saw the documents, no one believed that this cold fusion thing was real.

"The fusion machine is... in here?" Surprised, Academician Zhang Jianrong looked at Lu Zhou.

Lu Zhou took out his phone and smiled.

"The experimental reactor isn't here, but we have something better."

Academician Zhang Jianrong squinted.

"Something better?"

Lu Zhou nodded.

"Yeah, come with me, you'll see."

Chapter 674: 100 MW!

The group of people followed Lu Zhou's footsteps and went into the main factory building of the assembly center.

The moment Academician Zhang Jianrong walked through the factory door, it was like he became a statue that was frozen in time.

The two researchers behind him were the same. Their mouths were wide open as they were rendered speechless.

Dozens of industrial equipment in the factory were running on high-speeds, completely unmanned. They processed raw materials into necessary components and assembled the components together. These people had

seen a lot of Chinese processing sites, but this was their first time seeing a factory automated to this extent.

Lu Zhou looked at his phone and typed a few words.

[How much longer?]

Xiao Ai: [Soon! (๑•̥̥̥•̥̥̥)✧]

Soon after, an AGV logistics vehicle carrying a two-meter diameter cylinder slowly moved next to two ferrofluid electric energy generators, which were just assembled. The AGV waited for the robotic arm to finish the final long-awaited assembly.

Academician Zhang Jianrong finally realized what was going on, and he closed his mouth.

He then asked, “This is?”

Lu Zhou walked next to the strangely shaped equipment and knocked on the cylinder. He smiled and replied, “This is the sound fusion reactor you saw on the blueprints, and this is the ferrofluid electric energy generator. The shape is quite simplistic, but it’s going to be installed inside the space shuttle, so aesthetics don’t matter here.”

Academician Zhang Jianrong couldn’t help but ask, “So this thing was assembled just now?”

Lu Zhou gave a simple reply.

“I guess.”

More precisely, it was assembled half an hour ago.

Both the ferrofluid electric energy generator and the nuclear core reactor began production at the same time. While these three components were in production, the vacuum production room next to them was also working. A high-temperature liquid metal was being poured into the nuclear core mold.

By the time Lu Zhou and the other three people got here, Xiao Ai already finished assembling the two ferrofluid electric energy generators, and it had

just finished the nuclear core and the nuclear core container. As for the final assembly process, that was easy as a piece of cake.

Academician Zhang Jianrong asked, "Can you demonstrate it for us? It's a working process."

"Of course I can."

Lu Zhou gestured to the camera in the factory.

After Xiao Ai saw its master's gesture, it immediately began to operate the robotic arms, connecting electrical wires to the reactor.

The control program software was already installed, and the debugging had already been completed. After the heating and ultrasonic generating device were turned on, the entire machine went into a preheating state, in preparing for the activation of the nuclear core.

They quietly waited for a few minutes. Soon, the liquid lithium inside the nuclear core was heated to several hundred degrees, slowly flowing due to the sound driving pressure.

On the other hand, the air inlet began to discharge the deuterium-tritium gas mixture, which was then heated to a state of plasma. Bubbles began to continuously collapse under the ultrasonic sound pressure while it traveled from the bottom of the container to the top.

Right after that, the green signal lights on both sides of the reactor were lit up. A huge amount of electrical energy emerged from the ferrofluid electric energy reactor, and this power was sent to the outside of the factory through a dedicated power line...

When Academician Zhang Jianrong saw that nothing special was happening, he couldn't help but ask, "It's already activated?"

Lu Zhou nodded and replied confidently, "Yes."

The researcher next to them whispered, "I feel like nothing is happening."

Lu Zhou smiled.

"We can't see anything here, let's go outside."

Lu Zhou turned around and brought the three skeptical people outside the factory.

As they passed through the factory, a strong gust of wind blew in their faces.

Academician Wang was wondering why the wind was so strong, and he looked at the direction of the wind. He then suddenly froze.

There were several tall windmills that were spinning near the factory.

*Wind turbines?*

*Wait... No!*

Academician Zhang Jianrong was shocked, and he immediately asked, "Wait... Those are being powered by the reactor?"

Lu Zhou nodded and answered his question.

"Of course."

Lu Zhou looked at the towering windmills and said, "We have to find a way to use the electricity generated by the fusion battery. There's no lake or river nearby, so we have to use this."

Academician Zhang asked anxiously, "What's the maximum power? Of the sound fusion device!"

Lu Zhou thought for a bit. He then replied, "Theoretically, it can reach 100 MW. We just have to control the injection rate of the deuterium-tritium gas. However, it's a bit expensive to generate electricity this way, and I can't find a place to consume the excess energy, so I won't be able to demonstrate."

Lu Zhou looked casually at the academician.

10 MW could be used up by the few windmills outside the factory. If they increased the power to 100 MW, Lu Zhou would have to find a laser transmitter and convert the electrical energy into laser energy.

Zhang Jianrong and the two researchers looked astonished.

*100 MW!*

Even though this number wasn't very high, many thermal power plants could only reach a couple of hundred megawatts. However, this thing wasn't powered by an entire facility. It was only a "portable" controllable fusion battery!

The two A1G pressurized water reactors on the Nimitz aircraft carrier only had a combined power of 194 MW. However, that device weighed 900 tons!

Even though this fusion battery was heavy as well, it was nowhere near 900 tons.

Also, the other important thing was its volume.

One of the biggest goals in nuclear power was how to reduce the size of the power plant. This fusion reactor had huge advantages in terms of energy density and mass-energy density. This undoubtedly would be beneficial for nuclear-powered aircraft carriers.

Also what surprised Academician Zhang Jianrong the most was that this was only the first generation of fusion batteries.

Once this technology became mature, the power output would increase!

As for the two researchers standing behind Academician Zhang Jianrong, they had a mix of emotions on their faces.

Before they came here, they didn't even believe that sound fusion could generate fusion energy.

However, the truth was right in front of their eyes, they were in a state of cognitive dissonance.

They didn't want to believe this was real, but they had to admit that Lu Zhou was right.

Controllable fusion energy was miniaturized.

Lu Zhou was able to complete this near-impossible task!

Chapter 675: So Angry!

After the two researchers saw this with their own eyes, all of their doubts and suspicions disappeared. The two researchers from the navy equipment research institute began to look at Lu Zhou with worship.

Honestly, Lu Zhou was a little embarrassed.

After the trial run was finished, Lu Zhou asked Xiao Ai to stop the reactor and waited for the nuclear core to completely cool down before removing it. He then asked an assembly center technician to inspect the radiation damage on the reactor casing.

While they were disassembling the reactor casing, Academician Zhang Jianrong and the two other researchers were watching by the side, asking questions about the reactor components from time to time.

Even though they were well into their later years, they still had a serious and eager attitude about learning, the same as that of a young man in his twenties.

This was what Lu Zhou admired the most.

He always believed that as long as a person kept learning, that person would never grow old.

Even if their bodies weakened, their minds would remain young forever.

Academician Zhang Jianrong would probably stay for a few weeks in Jinling to learn about the relevant sound fusion knowledge as well as its technical knowledge from Lu Zhou. Because Lu Zhou was often busy and couldn't teach him every day, he arranged Professor Li Changxia to be the one responsible for teaching these three researchers.

Professor Li Changxia obviously accepted Lu Zhou's task.

After all, this was a good opportunity for Li Changxia to advance in the academic field.

If he could make friends with this prestigious academician from a high-ranking military institution, Li Changxia would have the hope of getting into the Changjiang Scholars Program.



Also, living in a hotel wasn't very convenient, nor was it safe. Lu Zhou talked with Jin Ling University and arranged them to live in the Jin Ling University's faculty dormitory, in the name of academic exchange groups.

At night time, Lu Zhou found a grilled fish restaurant near the university and invited the three researchers from the Navy Equipment Research Institute to dinner.

Because Academician Zhang was quite old, Lu Zhou didn't ask the waiter to bring any alcohol. However, when the grilled fish was placed on the table and the mouth-watering smell filled the entire room, Academician Zhang decided to go against his plan and asked one of the researchers to buy a bottle of Baijiu from the nearby supermarket.

It seemed like Lu Zhou's worries were superfluous.

This old man drank alcohol like it was water. He didn't seem like he was a day over 50 years old.

After some drinking, Academician Zhang Jianrong suddenly said, "Oh yeah, I suddenly remembered something."

Lu Zhou just came back from the toilet after getting rid of the metabolized alcohol from his body. He sat back in his chair and poured himself another shot.

"What's up?"

Academician Zhang: "Next year is the academician election year, right?"

Lu Zhou: "I think so?"

Academician Zhang: "I was thinking, what if you become an academician of the Academy of Engineering? Or Academy of Science?"

Lu Zhou paused for a second and smiled. He then said, "I'm a mathematician, there's no room for me at the Academy of Engineering. If I could, I'll probably be an academician at the Academy of Science."

Academician Zhang shook his head and said, "In my opinion, your achievements in the field of engineering are no inferior to your theoretical field

achievements. The significance of the Pangu project is comparable to the Manhattan Project!"

Lu Zhou shook his head and said, "Pangu wasn't my work alone."

Academician Zhang smiled and said, "That's what you said, but we all know that there are many excellent scholars and engineers, yet none of them can lead the way like you did. Do you think if Academician Wang Zengguang was the chief designer, the fusion reactor would have been made?"

Lu Zhou nearly spat the Baijiu out of his mouth.

Even though he knew they were good friends, this was still a little ruthless...

Academician Zhang suddenly had a flash in his eyes. He smiled and said, "How about you apply to the Academy of Engineering next year? We have already discussed it several times. A lot of people are willing to write recommendation letters for you. It'll be an easy ride. As for the Academy of Science, it doesn't really matter if you apply or not, they don't have a lot of funding."

Even though this sentence was somewhat bitter, the two academicians were actually around the same status, neither was better than the other. They both had backgrounds in directing research institutes and were the vice presidents of universities.

This old man definitely had drunk too much. Lu Zhou smiled and said, "We'll see what happens, who knows what can happen."

Academician Zhang Jianrong waved his hand.

"What do you mean? I'll personally write a recommendation letter for you! No one will dare to vote against me!"

Lu Zhou coughed.

"I'll think about it."

Zhang Jianrong smiled and nodded.

"You should think about it!"

The two researchers sitting next to them ate silently.

Wow...

*Forget about begging for an academician spot, this academician is begging Lu Zhou!*

*F\*ck sake, I'm so angry!*

...

After they finished eating, Lu Zhou said goodbye to Academician Zhang. He sat in Wang Peng's car and went back to his Purple Mountain mansion.

On the way back, he asked Xiao Ai to fill the bath with water. He went straight into his bathroom and soaked his body into the warm bath, washing away his sweat that smelled like alcohol.

This was the best part about his increased metabolic activity. Whether it was drinking or exercising, his body recovered at an insanely fast rate. Even though Academician Zhang drank a lot with Lu Zhou, Lu Zhou's body was able to process most of the alcohol on the ride home.

In some sense, this was a convenient superpower.

Lu Zhou walked out of his bathroom and put on the pajamas, which was placed by Xiao Ai's drone. He then went into his study room.

He still had some work to do before he could sleep.

However, the moment he sat down at his desk and turned on his computer, he received a phone call...

Chapter 676: Do You Know Who I Admire the Most?

The phone call was from Chen Yushan.

The moment the phone connected, Lu Zhou heard a pleasant voice through the phone.

"Hello, what are you up to? I called you before, but you didn't pick up."

"I was eating."

Chen Yushan curiously asked, "Eating? With a guy or a girl?"

"An academician from the Academy of Engineering, he's in his seventies." Lu Zhou coughed and said, "Forget about it, why are you calling me this late?"

Chen Yushan: "Well, the Commission for Science, Technology and Industry for National Defense just called our company."

"Commission for Science?" Lu Zhou raised his eyebrows. He was curious. "What did they say?"

"They asked if Star Sky Technology is interested in the end of year bidding for the manned moon landing project. If we are interested, we should start preparing the proposal and hand it in within two months."

Lu Zhou thought for a bit before asking, "What's the specific project details? Did they say?"

"The specific project content can be found on the Commission for Science's website. I briefly read through it. Roughly speaking, the first phase of the project requires us to provide a 50-ton low-Earth orbit launch capacity, to be completed within 5 years."

*50-ton low-Earth orbit delivery capacity?*

*Quite ambitious.*

One should know that the orbit capacity of the Long March 5 was only 25 tons. None of the Chinese aerospace companies could accomplish this task with their current technology.

As for the Long March 9, no one knew. After all, this thing was expected to be completed in 2026. However, aerospace funding had been increased by a lot. If they tried hard enough, they might be able to make the 5-year cut-off.

Lu Zhou sat in his chair and thought for a while.

"Okay then, I'll write a proposal in a few days."

"Okay, I'll wait for your news."

After Lu Zhou hung up the phone, he turned on his computer and contemplated it for a bit.

Even though at the beginning of the year he didn't consider bidding for this aerospace project, he didn't expect the sudden breakthrough in miniaturized controllable fusion technology.

Not to mention the scanner gun he won from the lucky draw, which cracked the secrets of the Hall-effect thruster. This greatly reduced his reverse-engineering time on the Debris No.3.

So far, the energy supply problem could be solved by the fusion battery. The most advanced five-axis CNC machine tools and the advanced neural network algorithm could be used to reverse engineer the Hall-effect thruster from the blueprint. It would be a pity not to participate in this project.

After all, he had seen the last moon landing seminar. The budget for this project was around two billion yuan. This kind of money-burning project would hurt his bank account quite a bit, so it would be great if someone could pay for his research.

Also, sending a 50-ton load into orbit wasn't anything too difficult for him.

Lu Zhou opened a document and placed his hands on the keyboard. He typed a title.

[The feasibility of fusion battery technology and ion thruster propulsion in aerospace.]

...

Over the past few days, Lu Zhou spent his time either at the Institute for Advanced Study or the space shuttle assembly center. He had collected the necessary data for his report, so he had very little time to spend at Jin Ling University.

However, this didn't matter too much. He didn't have a lot of classes in the second half of the semester. Only a few lectures on number theory, theoretical physics, and surface chemistry.

Even though occasionally there were a couple of students asking him questions, the PhD students who were residing in his office could deal with it.

As for the other more miscellaneous stuff, his three assistants could handle it.

Two weeks after the semester began, Lu Zhou had almost completed his entire argument report. He received a call from Luo Wenxuan, who was on a business trip in Europe.

When the call connected, a familiar voice was heard through the phone.

“It’s a shame you can’t come in person. The award ceremony is at the famous Institut de France. You have no idea how much preparation the Clay Institute did for this ceremony!”

“Oh really?” Lu Zhou heard how excited Luo Wenxuan was. He smiled and said, “I’m not too envious, I’ve already been there.”

The other end of the phone went silent.

After two seconds, Lu Zhou heard a cough.

“Oh yeah, I forgot, this is the second time you won this prize...”

*Jesus Christ, I totally forgot.*

*I totally got one-upped!*

Lu Zhou didn’t know what Luo Wenxuan was thinking. He smiled and said, “Remember to thank Professor Carlson, Jaffe, and Witten for me.”

Luo Wenxuan was helpless. He sighed and said, “I knew you would say this. I’ve already said hi to them... Oh yeah, I’ve mailed the medal and check from the Clay Institute to you. Make sure to check your mail.”

Lu Zhou said, “You mailed it? Why couldn’t you bring it back yourself?”

Luo Wenxuan: “Traveling with a million-dollar check and a pure gold medal? Do you think I’m crazy?”

Lu Zhou: “Okay then, how long do you plan on staying in France?”

“Haha, uh... I haven’t decided yet.” Luo Wenxuan looked through his hotel window and yawned. He said, “At least until the end of month, right? I plan on taking a trip to Liechtenstein.”

Lu Zhou: "..."

*This guy is so unreliable.*

Since Luo Wenxuan had done what he had to do, Lu Zhou didn't say much else.

Lu Zhou sighed and said, "Okay then, just come back after your trip."

"No problem! Actually, I'm not totally on holiday, I'm walking around to accumulate inspiration. Do you know who I admire the most?"

Lu Zhou: "Who?"

*It's not me, right?*

*Please don't be me...*

Luo Wenxuan: "It's Schrodinger! He discovered the great wave equations in the foothills of the Alps with his lover! I think you know what I mean, just like how you teach undergraduate students for inspiration, my way of being inspired..."

"F\*ck's sake!"

Lu Zhou hung up the phone and threw his phone on the table.

He looked at his completed thesis on his computer screen and double-checked the entire thesis. He converted the thesis format and sent it to the relevant China National Space Administration department.

He was certain that after they saw where the email came from, the department would take his proposal seriously.

As for Luo Wenxuan...

There weren't any physics research projects that Lu Zhou needed Luo Wenxuan's help with, so Lu Zhou decided to just let him be.

Chapter 677: Raise Your Hand

China National Space Administration.

Inside a conference room.

A title was shown on the screen.

[The feasibility of fusion battery technology and ion thruster propulsion in aerospace.]

The title of the thesis was also the subject of the conference.

Even though the title wasn't very long, it contained a lot of information. So much so that even though the conference had begun a long time ago, no one has spoken yet.

Director Sun looked at the people in the conference room and contemplated for a bit with his eyes closed. He slowly opened his eyes and broke the silence.

"This thesis was written by Professor Lu around two days ago. After we received this thesis, the leaders from the Communist Party of China told me to discuss this with you guys."

Director Sun paused for a second and made sure that he didn't forget any details.

"About this thesis... Well, the space shuttle, I want to hear your opinions."

The conference room remained silent.

After a while, a quiet voice spread through the conference room.

"The space shuttle program was dropped by Qian Xuesen for a reason... Should we do this?"

"Are we going to listen to Qian Xuesen forever? Also, that was a long time ago. If someone wanted to build a plane a hundred years ago, do you think people would have believed them?"

"I agree with Professor Yu, right now the NASP program and the Sanger program in Germany are focusing on reusable space shuttles for round-trip



transportation systems. I'm sure the Americans have lost more on the space shuttle program than we have. There's a reason why they're choosing to go with the space shuttle. Therefore, we can't ignore their decision!"

Director Sun was sitting at the end of the conference table as he quietly listened to their discussion.

Even though the discussion was somewhat sloppy, he had no other choice.

After all, since Professor Lu's thesis mentioned a lot of sensitive technology, it wasn't suitable for public discussion or even closed-door expert meetings. Therefore, the information sent to the conference attendees was altered. For example, the fusion battery was described as a hypothetical unfinished technology.

Therefore, most people didn't take the fusion battery technology seriously.

Actually, similar things had happened before in this conference room. However, there weren't advanced multimedia equipment back then, and the conference attendees had obviously changed.

Deputy Director Wang looked at the chaotic conference room. He then quietly said, "Director."

"What now?"

"Is this discussion... necessary?"

Director Sun raised his eyebrows.

"What do you mean?"

Deputy Director Wang said, "The higher-ups want us to treat Professor Lu's thesis seriously. Isn't their intent obvious?"

Director Sun said with a blank expression, "We still have to discuss. Otherwise, do you want to be responsible when something goes wrong?"

The deputy director smiled and shut his mouth.

The discussion gradually became heated.

No one could convince anyone.

Director Sun looked at his watch and saw that it was about time, so he cleared his throat and raised his voice.

“In order to ensure this meeting can be held more effectively, I will disclose some private information. I want you all to make sure that you do not have any electronic devices and make sure that this stays strictly confidential.”

The conference room began to quiet down.

The experts in the room looked at each other. They all had thoughtful expressions on their faces.

Of course, some people were confused as they looked at Director Sun with suspicion on their faces.

Director Sun didn't explain anything. He looked at his assistant next to him and nodded.

The assistant standing next to the multimedia desk immediately knew what was going on. The assistant placed a CD into the computer on the multimedia desk and quickly found the original thesis inside the CD. There was some sensitive data, as well as information regarding the fusion battery.

The moment the information was projected on the screen, the conference room went dead silent.

A few minutes had gone by...

Suddenly, there was an uproar in the conference room.

“100 MW! This is impossible!”

“If the output power can reach 100 MW... then it could generate thrust on the kN magnitude...”

“This is ridiculous! If they can reach 100 MW of power, then the ion thruster can provide kN magnitudes of thrust?!”

So far the world's most powerful ion thruster was NASA's NEXT system, which had a power output of 6.8KW, with only a thrust of 0.236N.

A thrust that was in the magnitude of thousands of newtons...

It would require energy in the order of MW, but no ion thruster in this world would be able to use this energy.

An old professor with glasses looked at the data on the projector.

“What kind of ion thruster can achieve this level of power...”

“They’re not scamming for research funding, right?”

“Impossible, Professor Lu wrote this himself! Do you think he’s lacking in research funding?”

“I think he’s a fraud!”

1“But what if he actually did it?”

“Quiet!”

The loud voice interrupted the chaotic conference room.

The director looked at the experts in the conference room and said, “I’m a layman, so I can’t evaluate whether this is reliable or not. After all, I’ve been on many planes, but I’ve never been on a space shuttle.

“You are all aerospace experts. Over the past two decades, our country’s aerospace industry has made great progress with your help. Not only have we made technological breakthroughs, but we also completed things that other countries couldn’t dare to imagine.

“Therefore, I believe in your judgment.”

Director Sun only used one sentence to put an end to this argument.

“Put your hands up for a vote.”

The conference room went silent for a while.

The experts carefully looked at the data on the projector and began to contemplate.

Gradually, one hand went up.

Then the second...

Then a third...

After a while, Director Sun looked around the room and began to count.

Eleven of the twenty people raised their hands.

Even though some people didn't want to vote, the majority was for the proposal.

Director Sun looked around the room and nodded. He stood up and spoke in a concise manner.

"Project approved!

"Meeting finished!"

Chapter 678: Funding Approved!

The space shuttle had a long history behind it.

Ever since the completion of the Apollo program in the United States during the 1960s, the focus of space shuttle R&D had been on easy maintenance and multiple launches. The Soviet Union followed the United States closely in this space battle. They successfully launched three space shuttles, such as the Snowstorm and the Little Bird.

Therefore, China didn't want to fall behind either, and they also made their own plans.

Like the 863-204 project. The so-called "world-wide round-trip transportation system". During the early stages of the project bidding, Chinese space experts heavily debated the space shuttle. The people supporting the space shuttle had the upper hand.

However, once the arguments were settled, the report was given to Qian Xuesen, who was near retirement.

After Qian Xuesen read the report, he only wrote one line in reply. That line completely changed the technical route of the space shuttle, and it also changed China's aerospace industry.

"This is a terrible idea."

Looking back at it now, this decision was undoubtedly correct.

Space shuttles weren't actually as glamorous as it seemed. Even the two super-nations couldn't achieve their dreams of achieving convenient space travel.

Using the United States as an example, the design life of the Space Shuttle Columbia was 20 years/100 launches, but the total number of launches across all five of the United States' space shuttles was barely a hundred times. The launch costs and maintenance costs were also copious, always exceeding their estimated budgets.

On the other hand, the Soviet Union was even worse. Their three space shuttles had only been launched once each. After the 90s, the space shuttles couldn't even be launched to space. One of them was bought by a museum in Germany.

Rather than going through all of this again, it might be better to just research how to recover the second-stage launch rockets. That would cost around the same as maturing space shuttle technology.

However, the times were always changing.

One had to look at the problem from another perspective, and any problem had a solution.

Space shuttle assembly center...

Lu Zhou was standing next to an industrial robot. With gloves on his hand, from a plastic box, he picked up a metal tube around the size of a water bottle. He then placed the metal tube near a metal port and began to carefully look at the surface.

"Why do I feel like it's too big?"

A series of texts popped up on the control screen of the machine tool.

Xiao Ai: [Sorry, Master! This is the best Xiao Ai can do...]

Lu Zhou: "It's fine, I'm not blaming you... You did a good job."

Xiao Ai: [Really? 0.0]

"Yeah."

Xiao Ai: [Happy!  $\Phi(\geq \omega \leq *)$ ♪]

Lu Zhou: "..."

In his hand was the enlarged version of the Hall-effect thruster from the Debris No.3. This component was at the upper manufacturing limit of the CNC machine.

Lu Zhou tried to ask Xiao Ai to make this thing smaller without sacrificing performance. However, the diameter of the propulsion unit was only reduced by 1 mm, and yet the overall processing difficulty increased exponentially. This also affected the stability of the propulsion unit.

However, even though it was difficult to reverse engineer the technology behind Debris No.3, this copy was quite good.

The engine port that had a diameter of 1.32 meters could be filled with 200 Hall-propulsion units. By supercharging and rectifying the plasma xenon in the ionization chamber, the plasma plume could accelerate to one-thousandth of the speed of light and be injected backward. This would result in a maximum thrust of 200KN.

A single engine had a thrust of 200 kN, so five engines would have a total of 1,000 kN.

Even with a load of 50 tons, it would be able to achieve 1G of acceleration. Even though it was slower than traditional chemical rockets, it had the advantage of not having to carry heavy fuel.

The only problem now was that the 100 MW fusion battery had to meet the requirements of 1 X-type Hall-effect thruster.

If he wanted to have enough energy output, he had to upgrade the power of the fusion battery.

“It looks like we have to increase the power of the fusion battery to 500 MW... Ideally, 1,000 MW.” Lu Zhou stared at the propulsion unit in his hand and said, “The power control system also has to be improved... Is there a way to integrate the ionization chamber with the five engines? Or get a bigger Hall-effect thruster with more propulsion units.”

Lu Zhou placed the propulsion unit back into the plastic box and walked away from the factory. He went into the main office at the building next door and found the technical director of the Star Sky Technology's space shuttle assembly center, Hou Guang.

Speaking of which, this guy was also a nutty person.

This old professor had participated in the 836-204 project. Even though he was only an intern for the space shuttle design, he had a wealth of experience in the aerospace field. After that, he worked as an aerospace professor at Beihang University.

Normally speaking, it would be difficult to hire a big name like this. However, once the old professor heard that Lu Zhou was leading the team to build a space shuttle, he immediately accepted Star Sky Technology's offer. He flew to Jinling the next day.

It had been more than a month since he had worked here as a technical director.

Lu Zhou was satisfied with his work.

After all, designing the space shuttle wasn't Lu Zhou's cup of tea, and it would be better for him to let the professionals handle it.

“I've carefully researched the space shuttle design. Because of the size of the power supply components, the ion thrusters, and the propulsion units, we have to design more than 40% of the space shuttle.”

Lu Zhou: “What does more than 40% mean?”

Hou Guang thought for a bit and gave a clearer answer.

“We probably have to completely redesign from the shuttle wing backward.”

Lu Zhou nodded.

“Since you’re a space shuttle expert, I’ll do what you say. Also, based on your experience, I want you to give me a simple assessment of how much the entire project will cost?”

Hou Guang thought for a bit before replying, “A conservative estimate is a billion USD... Of course, before the new design comes out, no one knows how much it’ll cost.”

*A billion USD...*

For a space shuttle project, this price wasn’t high at all. After all, the Columbia space shuttle cost the Americans more than US\$2.5 billion, and that was decades ago. Being able to build this with only a billion USD was largely due to the fact that most of the design was completed in the 1990s. Since the assembly center could process most of the components, they only needed the raw materials.

However, even though Lu Zhou was prepared to spend money...

This US\$1 billion price tag was out of his budget.

Lu Zhou couldn’t help but start to worry about money.

*Should I sell some of East Asia Energy’s shares?*

Even though it wasn’t a public company, he could easily sell his shares. After all, everyone knew the potential of this giant fusion company. However, the work at Daya Bay had only just begun, and the Southeast Asian power grid was in its first stage. It would be a shame to sell now.

*Should I borrow money from the bank?*

*But this is an aerospace project. The ROI will take too long, plus there are no profit forecasts. It’ll be difficult to get a loan.*

While Lu Zhou was worrying about it, he suddenly heard a door knock.

Lu Zhou looked at the door and said, “Come in.”

When the door was pushed open, the secretary of the assembly center was at the door.



The secretary didn't expect to see Lu Zhou here. She paused for a second and looked pleasantly surprised.

"Professor Lu!"

Lu Zhou said, "What?"

She spoke with excitement, "The research funding that we applied for at the China National Space Administration was approved!"

Chapter 679: 500 Million

*Funding was approved?*

*Already?*

There was a flash of surprise in Lu Zhou's eyes, and he quickly asked.

"How much was approved?"

"500 million!"

*Only half a billion?*

Lu Zhou looked a little disappointed, but he quickly returned to normal.

Even though it wasn't a lot of money, it temporarily relieved their funding shortage.

After all, the country wanted to commercialize the aerospace industry, and they couldn't just give all of their subsidies to one company. If he wanted to survive in the aerospace industry, he had to rely on many departments, such as the Commission for Science, Technology and Industry for National Defense, China National Space Administration, and the manned mission to the moon.

If he could win the bidding and take on some research projects from the China National Space Administration, such as collecting lunar soil, then he wouldn't have to worry about funding.

Hou Guang had a similar idea. After he heard the secretary's report, he frowned and thought for a bit. He said, "500 million... Should be enough for the first couple phases of the project, we'll have to get more funding later on."

"Yeah." Lu Zhou nodded and said, "I'll find a way to get us funding, you don't have to worry about it."

Lu Zhou smiled and patted the technical director on the shoulder.

"Even if our funding really runs out, I'll sell my Purple Mountain mansion and make sure our space shuttle will fly into space!"

Hou Guang was speechless.

*Selling your house to build space shuttles...*

*What kind of person does this?*

Hou Guang asked himself if he could sacrifice materialistic things for the greater good, and he didn't think he could do it.

*There's no way Lu Zhou won't be able to send the space shuttle into space!*

Hou Guang stood up straight and made a solemn promise.

"I won't let you down!"

Lu Zhou didn't expect Hou Guang to get so serious. He suddenly felt a little embarrassed.

Even if they needed money, he wouldn't sell his mansion...

His mansion was worth a lot less than his East Asia Energy shares or his lithium-sulfur battery patent.

Using those two as mortgages would get him a lot more money.

Lu Zhou coughed and diverted the conversation.

"In short, you only have to do your side of things, you don't have to worry about anything else. We have to try to win the big projects from the Commission for Science and the China National Space Administration. If we do, we won't have any more funding problems!"

Hou Guang nodded his head.

“Roger that.”

...

Virginia.

CIA headquarters.

The director of the CIA was sitting at his desk. He was carefully reading a document about the ITER project, which was sent from Europe.

Suddenly, he heard knocking sounds.

He put down his pen and closed the document. He then looked at the door and muttered, “Come in.”

The office door was pushed open.

An agent in his forties walked in while holding a file.

“Director, our agents in China have returned with the latest information. The Navy Equipment Research Institute is developing a more reliable power unit.”

“More reliable power unit?” The director raised his eyebrows as he asked, “Can you be more specific?”

The agent took a deep breath. He then replied with a hint of uncertainty, “Apparently... it’s a smaller controllable fusion machine.”

“Smaller controllable fusion machine?” The director’s pupils dilated, and he stood up from his office chair abruptly and slammed his hands on the table. “Is the information reliable? Is there a detailed report?”

“The information is still being verified... Of course, the report is ready.”

The anonymous agent walked forward and placed the file on the table. He then took two steps backward and stood straight with his hands behind his back.

The director picked up the report and sat back down. He began to carefully read the report.

“Estimated power output of 500-1,000 MW... Technical route unknown, may be different from magnetic confinement.” The director put the file down and said, “Is this the only information we have?”

The agent nodded and said, “At the moment, yes.”

The office became silent.

A few seconds went by, and the director suddenly asked, “Is it Professor Lu again?”

The agent frowned.

“It is possible... but not likely. According to our agents in China, after the STAR-2 stellarator project was completed, Professor Lu resigned from his position. However, he later went on to research sound fusion but didn’t achieve any significant results... The project team was even disbanded last month.”

Sound fusion was one of the ideas for cold fusion, and the research on cold fusion had been labeled a “hoax” by the National Academy of Sciences and the United States Department of Energy in the 80s.

It turned out that even the all-mighty Professor Lu wasn’t able to take down this mysterious dragon.

Even though the CIA had considered the fact that China could have tried to cover their experiment success, considering the fact that Lu Zhou was busy with the Yang-Mills equations some time ago, it would be impossible for him to research sound fusion at the same time.

It was very likely that the sound fusion was just a smoke bomb released by the Chinese authorities, which was used to cover their top research at the Navy Equipment Research Institute.

The director didn’t say anything. He tapped his index finger on the table and began to contemplate.

A couple of seconds went by. He suddenly relaxed and leaned in his chair.

“The possibility of Professor Lu being in this is low... But I don’t think we can separate this thing from him.”

The agent asked, "What do you mean?"

The director looked at the report on the table and said, "At the moment, we are not certain whether this is a ploy by China or if they have actually achieved some results.

"Regardless, obtaining more intel is the most important thing.

"Increase the agents in Jinling, especially at the space shuttle assembly center! I need to know what Lu Zhou is doing. Also at the Navy Equipment Research Institute! If they're really doing research on the miniaturized controllable fusion, there have to be clues. Immediately report all information to me!"

The agent stood up straight.

"Yes, sir."

Chapter 680: Prepare for the Future

Lu Zhou wasn't able to help too much with the space shuttle design.

Even though with his current level of engineering, he could self-learn the necessary knowledge, his energy was limited. He had to invest his time and energy into things that had the highest rate of return.

These days, in order to increase the energy density of the reactor as much as possible, Lu Zhou spent his time researching on how to improve the sound fusion machine. Most of the heat generated by the Hall-effect thruster was contained in the ionization chamber, which was then expelled from the spacecraft in the form of high-energy plasma.

Fortunately, because of Xiao Ai, the difficulty of his work decreased greatly.

As long as he had a laptop, he could control the reactor with the help of Xiao Ai's robots and verify some new interesting experiment ideas, which were dozens of kilometers away.

So far, Lu Zhou had successfully increased the power of the sound fusion machine to around 200 MW. As for the sacrifices, he only had to increase the nuclear core volume by 20% and the weight by 10%. Therefore, the overall volumetric energy density and mass-energy density had improved significantly.

Even though there was still a long way to go from the minimum requirement of 500 MW, Lu Zhou believed that they weren't far from success.

In addition to improving the fusion battery, there were also the project bid documents.

The end-of-year aerospace conference would be held in less than a month. There were many aerospace enterprises that would participate in this year's conference. Not only were the China Aerospace Science and Technology Corporation and the China Aerospace Science and Industry Corporation attending, but OneSpace, Blue Arrow Aerospace, and other excellent private aerospace companies were also attending. Even some of the large tech companies were joining in on the fun.

After all, investing in the aerospace industry meant tax concessions. For big taxpayers like them, it meant that the state was basically subsidizing them to develop their aerospace technology. Not to mention they had needs for communication satellites...

The days quickly passed by, and it was soon late September.

During the last week of September, Luo Wenxuan finally came back from Europe.

When Lu Zhou saw him come into the office, he teased.

"Did you find any inspiration?"

Luo Wenxuan coughed and replied, "Inspiration... can't be hurried, it'll come naturally."

"Well, regardless, I have something for you to do."

Luo Wenxuan immediately started to focus.

"What?"

Lu Zhou didn't plan on telling him just yet.

"How long did you stay at CERN?"

Luo Wenxuan: "Probably around three years."

"Three years?" Lu Zhou nodded and said, "Do you know a lot about hadron colliders?"

Luo Wenxuan didn't know why Lu Zhou was asking this, but he still answered honestly, "I know a bit, I'm pretty close with Professor Grayer. He often took me to visit the tunnels, and I've also witnessed the overhaul of many detectors, like ATLAS and CMS."

"Grayer?" Lu Zhou looked nostalgic as he smiled and said, "He's an interesting guy."

"You know him?" Luo Wenxuan looked surprised. He patted his forehead and said, "Oh right, I forgot, you interned at CERN."

"Yeah, but I don't know a lot about CERN, especially about the Large Hadron Collider." Lu Zhou paused for a second before adding, "I plan on building a similar thing for theoretical physics research."

"Building a similar thing?" Luo Wenxuan's eyes widened, and he looked at Lu Zhou in disbelief as he said, "You plan on building a collider? Do you know how much those cost?"

Lu Zhou smiled and said, "Tens of billions of USD? Actually, it's not that much, also... I don't plan on building it on the ground, but in space."

Luo Wenxuan was shocked speechless.

"Wouldn't that cost even more money?"

Lu Zhou: "You don't have to worry about the money, that's my responsibility. Also, we don't need money just yet, I just need you to participate in the design."

Luo Wenxuan said, "But I'm not a physics engineer."

"I know, but you're an expert in theoretical physics who had spent three years working at CERN." Lu Zhou looked at Luo Wenxuan and said, "I'll hand over

the engineering to someone else, and you'll be responsible for providing theoretical support for the design. Of course, if you are not interested, I can ask someone else."

"Of course I'm interested... I'm just afraid to let you down."

"Don't worry," Lu Zhou patted Luo Wenxuan's shoulder and said with a smile, "I believe in you."

Building a Large Hadron Collider in outer space for theoretical physics research had the advantage of low-gravity and a non-magnetic field environment. Lu Zhou had thought of this idea for a long time but never had the means to realize it.

Now that he had made breakthroughs in controllable fusion technology, the advanced ion thrusters would kick off a new aerospace era. This unrealistic idea now seemed feasible.

Regardless of whether it was difficult, the design work could begin now.

Luo Wenxuan scratched his head and sighed.

"Okay then, if there's anything else I need to do, just tell me."

Lu Zhou nodded.

"Yeah, I'll send the specifics to your email. Okay, that's about it, you can leave if you want."

Luo Wenxuan joked, "You're kicking me out now? You're not even going to give me a cup of coffee?"

Lu Zhou looked up and saw Kong Jie standing near the coffee machine.

"Kong Jie, make two cups of coffee for me, an instant one and a black one, the kind with no sugar or milk."

"Okay." Kong Jie nodded at Lu Zhou and took out a bag of instant coffee and a can of coarsely ground coffee beans from the drawer. She skillfully made the two cups of coffee and brought them over on a tray.

"Here you go, enjoy!"



“Thank you.”

Kong Jie smirked and twirled her hair with her thumb.

“You’re welcome.”

Kong Jie went back to the coffee machine and made herself a cup of coffee as well. She then returned to her desk and sat down.

Lu Zhou picked up his cup of coffee and took a sip.

*Not bad.*

The taste and temperature were perfect, just how he liked it.

Lu Zhou put down the cup and looked at the other cup. He then looked at Luo Wenxuan and asked, “Didn’t you ask me to get you some coffee? Why aren’t you drinking it?”

“I...”

Luo Wenxuan stuttered. He stayed silent for a while.

He looked behind himself, then looked at Lu Zhou.

Lu Zhou knew he had something to say, but didn’t know how to say it. Lu Zhou sighed.

“Say it, what’s on your mind...”

Luo Wenxuan: “I suddenly want to ask you some... questions.”

Lu Zhou was bored.

“Go ahead.”

“Is she... your assistant?”

Lu Zhou paused for a second. He looked at Kong Jie, who was sitting at her desk sorting out documents.

“Yeah, why?”

Luo Wenxuan immediately asked, "Does she have a boyfriend?"

Lu Zhou nearly spat out his coffee. He put down his coffee cup and lowered his voice.

"I'm warning you! I don't care if you go after other people, but if you try to hurt my students or employees..."

"Am I that kind of person! I..." Luo Wenxuan looked at Kong Jie and said, "I'm being serious."

Lu Zhou was speechless.

He had heard this line many times before.

"You weren't serious the previous times?"

"I'm always serious... but this time is different. Every time is different. Lu Zhou, you get me, right? Love is so sudden, it's like the electrons outside the nucleus, you never know exactly where it is. One second it'll suddenly appear next to you."

*I can't...*

*This is disgusting...*

Lu Zhou made a fake-vomiting gesture.

Luo Wenxuan pretended like he didn't see anything. He kept looking toward Kong Jie's desk.

Lu Zhou said, "Look me in the eyes and repeat what you said."

"No, thanks, I'd rather look at her."

"F\*ck sake!"

Chapter 681: Luo Wenxuan Is Lovestruck?

Because of Kong Jie, Luo Wenxuan recently liked to visit Lu Zhou's office. He'd either come for some coffee or talk about some difficult problems with Lu Zhou.

Honestly speaking, even though Lu Zhou was too lazy to care about this guy's love life, Luo Wenxuan was the type of guy who went through 5 girlfriends in a month, and this made Lu Zhou slightly worried. If Luo Wenxuan really started dating his assistant, Lu Zhou was afraid it would end badly...

Speaking of which, Lu Zhou was quite puzzled since Luo Wenxuan mentioned before that he never dated people from his workplace.

Somehow, he changed?

Fortunately, Luo Wenxuan's pickup tricks didn't work every time. At least from Lu Zhou's perspective, Assistant Kong had no interest in Luo Wenxuan's attention-grabbing behaviors. She only concentrated on her work.

Even though Luo Wenxuan was a bit frustrated, Lu Zhou was relieved.

However, Lu Zhou was getting tired of his shenanigans.

Therefore, on the last day of September, Lu Zhou couldn't help it anymore. He put down his cup of coffee and sighed.

"Do you know what Edward Witten said about you?"

Luo Wenxuan, who was bothering Lu Zhou with a discussion about the electrostrong interaction, paused for a second.

"What... did he say?"

"He said that if you spent half of your womanizing energy on physics, physics would be your lover."

There was something else Lu Zhou didn't say.

Witten once thought that Luo Wenxuan was the best student who could take on Witten's torch and carry forward the M theory, but unfortunately, it took Luo Wenxuan a billion years just to graduate...

Of course, this would be too hurtful to say out loud, so Lu Zhou thought that it would be better to never tell him.

However...

“Witten thinks this highly of me?”

Lu Zhou: “... ???

“You think he thinks highly of you?!”

“Anyway, give me a break! I’m already in my thirties! If I give up on this opportunity, who knows how long it’ll take for me to find my true love...”

“Go figure it out yourself!”

Han Mengqi peeped in their direction, but she couldn’t hear what they were talking about.

Suddenly, they heard a knock outside the office door.

Lin Yuxiang, who was sitting near the door, saw Dean Qin appear at the front of the door with a smile while holding a vacuum flask in his hand.

“Oh, Professor Luo, you’re here too, I’m not interrupting your discussion, am I?”

“Nope.” Lu Zhou leaned back and sighed. “This guy is going a bit crazy these days, I’m enlightening him... What’s up?”

Dean Qin smiled and said, “There’s some stuff I have to tell you, it’s regarding the faculty event in October.”

*Faculty event?*

Lu Zhou was confused.

“What event?”

“Field trip.”

“Field trip?”

“Yeah.” Dean Qin nodded and sat down on the sofa. He smiled and said, “This autumn season field trip is jointly organized by our mathematics department and the foreign languages institute. Faculty members below the

age of thirty are encouraged to participate. It's designed to provide a chance for the faculty members to relax and take a break from the stressful workplace... Of course, the main part is to let you young people get to know each other."

"So... it's a group date?"

Dean Qin: "You can think about it that way, but the main part is to give everyone a chance to go out. Everyone will stay at the Purple Mountain Hotel for a night. I've been there a couple of times, the environment and scenery are nice. What do you think? Are you interested?"

Actually, there was one thing the dean didn't mention. For faculty events like this, especially between departments, it was mainly hosted to help the single employees find their partners.

After all, universities and academia was a closed circle. Compared to other professions, there weren't many opportunities to contact the outside world. Especially for some of the more introverted scholars, without these faculty events, they might never find their partners.

As for Lu Zhou's relationship situation...

There had been countless people trying to find him a partner...

Lu Zhou felt a little suspicious. He felt like Dean Qin was hiding something.

Lu Zhou shook his head and said, "Oh well, I'm probably not going to go, you guys have fun."

Dean Qin knew Lu Zhou would say this.

"You have tons of time for research, but you can't even spend one day to socialize? Socializing is good for research!"

Lin Yuxiang was eavesdropping on the conversation, and she walked over with a cup of instant coffee and nodded. She said, "Yeah, it's much better than staying at home."

Lu Zhou said, "I'm not staying at home."

Dean Qin: "Staying at your office is the same! You're young, go out and have some fun."

Lu Zhou went silent for a while and sighed.

“Okay then... If I’m not busy, then I’ll go.”

He really wasn’t good at rejecting people.

Especially when it came to things that weren’t too troublesome for him to do.

“Yay!” Lin Yuxiang held up a victory sign and smiled at Dean Qin. She said, “Dean Qin, can assistants go as well?”

Dean Qin smiled and replied, “You can apply if you want to!”

When Luo Wenxuan heard that anyone could sign up, he quickly poked Lu Zhou’s arm. He pointed at himself and looked desperate.

Lu Zhou rolled his eyes and cleared his throat.

“Who else wants to go?”

The office went silent for a while.

Other than Lin Yuxiang, no one else held their hand up.

This made sense...

After all, this was for faculty and staff members; students didn’t want to go. As for the low-level assistants, they weren’t interested either.

Lu Zhou gave Luo Wenxuan a helpless expression.

Suddenly, an arm went up.

“Umm... Me.”

Lu Zhou looked over and saw Han Mengqi with her hand up in the air.

Lu Zhou looked at her face and asked, “You want to go as well?”

Han Mengqi’s face turned red, and she quickly nodded.

“Yeah!”

Lin Yuxiang looked at Han Mengqi's reddened face. She blinked and pretended to be dumb as she said, "But... You're not a staff member, right?"

"Well..."

Compared to Lin Yuxiang, Han Mengqi was too innocent. Even though she wanted to say something, she couldn't think of anything.

Dean Qin waved his hand and smiled as he said, "It's fine, it's fine. Graduate students can go as well. You're all young people anyway. It's healthier to go out than staying in the office all day!"

Lin Yuxiang was a little disappointed, but Han Mengqi felt relieved.

Originally, Han Mengqi didn't want to go...

It was just that she was worried about Lin Yuxiang being with Lu Zhou alone.

After all, Lu Zhou was Mengqi's future brother-in-law!

Han Mengqi picked up the pen and wrote down her name on Dean Qin's registration form.

Luo Wenxuan, who was standing next to Lu Zhou's desk, looked heartbroken.

Even though Assistant Kong wasn't interested in signing up, he still put down his name.

"I'll just go to clear my mind."

Luo Wenxuan sighed and handed the registration form to Lu Zhou. He then turned around and left.

Chapter 682: Yikes!

Autumn was the most beautiful season in Jinling.

The summer heat was still blasting through the tree branches yesterday, but in just a blink of an eye, the golden autumn leaves already covered the

ground. A group of young people stepped on the golden ginkgo leaves scattered across the mountain asphalt roads.

“I’m so tired.”

“Who told you to come in high heels?”

“I thought the bus would take us to the hotel, who knew we would have to walk there... Ah, this is so painful.”

“Look, there’s actually quite a few handsome guys from the mathematics department.”

“Oh, look, Professor Lu is there...”

“ ... ”

Lu Zhou didn’t know why, but he felt like someone behind him was staring at him.

And it wasn’t just one person staring.

Wang Peng was walking next to Lu Zhou. He looked at the mountains and suddenly said, “I’ve lived in Jinling for nearly two years now, but it’s my first time coming here.”

Luo Wenxuan said, “Ah, that’s nothing, I was here for four years for my bachelors, and two years for my master’s, and I haven’t been here either.”

“Two years for your master’s?” Wang Peng looked surprised.

“Yeah, I received an offer from Princeton in my second year, so I went there instead.”

Luo Wenxuan was quite proud of this.

Even at a top university like Jin Ling, being able to receive a PhD offer from the well-known Professor Edward Witten was an extraordinary accomplishment.

As expected, Lin Yuxiang, who was next to them, clapped her hands.

“Amazing.”



Luo Wenxuan's ego was through the roof.

"Haha, yeah."

Lu Zhou couldn't help but say, "Then you took six years to graduate?"

Luo Wenxuan coughed.

"That's because Witten loves to... Ok, can we not talk about this?"

Han Mengqi was nearby. When she heard their conversation, she couldn't help but chuckle. Other professors from the mathematics department also smiled.

The atmosphere was full of joy, and Luo Wenxuan quickly changed the topic. He began to talk about the things he experienced at CERN and his internship at the Brookhaven National Laboratory.

Lu Zhou had to admit, this guy had a lot of experience. Lu Zhou had always wanted to go to Brookhaven National Laboratory, but the closest he got was talking with Professor Wilczek about the 750 GeV signal at a cafe near the laboratory.

After walking for about five or six kilometers, they took a break at a gazebo. After that, they walked some more. Finally, they reached their destination.

The name of the hotel was simple. It was named after the Purple Mountain. The decor was elegant. Apparently, there was also a spa, but Lu Zhou didn't know if it was manmade or natural.

After the mathematics department arrived at the hotel, they did their usual check-ins. After a while, the foreign language department also arrived at the hotel.

Lu Zhou looked around the hotel while holding his room key. Roughly speaking, the foreign language department was similar to the mathematics department. Other than some older professors who were still in good shape, most of them were young people. The only difference was that the sex ratios were the exact opposite, and they were on the younger side. There were even a couple of beautiful foreign teachers.

Because there were so many people, Lu Zhou originally didn't want to go. However, Dean Qin's invitation made it difficult for him to refuse.

Besides, he had finished most of the work for the upcoming bid. The fusion battery improvements were also in its final stage. Since he wasn't as busy with work anymore, it was time for him to get some rest.

This was what Chen Yushan told him over the phone last night.

This was just a way for him to get some rest.

Lu Zhou picked up his luggage and was about to go upstairs.

Suddenly, the hotel manager walked into the lobby and smiled at the faculty members.

"You guys are all from Jin Ling University, right? Welcome!"

Dean Qin seemed to know the manager. He went up and shook the manager's hand.

"Manager Song, you're too kind."

"This is nothing, our little hotel is honored to accommodate these scholars."

Dean Qin smiled and said, "This hotel is not little at all."

Manager Song smiled and didn't say anything. He looked at Lu Zhou, who was standing behind Dean Qin. He had a surprised expression when he said, "You are... Professor Lu?"

Lu Zhou was a little shocked. Even though he had been on the news a few times, he was rarely recognized in public.

"Yeah, nice to meet you."

Lu Zhou smiled politely.

"It's an honor," Manager Song shook Lu Zhou's hand and said, "I didn't expect you to be here."

"You know of me?"

“Of course I do, my daughter worships you. She follows and comments on your Weibo all the time.”

“Dad,” said a teenage girl who was hiding behind Manager Song. She pulled her dad’s arm and said, “Please stop.”

Lu Zhou didn’t expect to meet his fans here. He smiled awkwardly.

*Ah, I guess this is the downside of being famous?*

Lu Zhou asked, “How old are you?”

The girl blushed and said, “I’m in middle school.”

*Browsing Weibo in middle school?*

*That’s not good.*

Lu Zhou began to lecture her.

“Don’t spend all your time on Weibo, make sure you keep your studies up and try to get into a good high school.”

“Yes.”

The girl nodded.

It seemed like the girl took Lu Zhou’s advice seriously.

Lu Zhou smiled and continued to ask, “By the way, what did you comment on my Weibo?”

The girl went silent.

Manager Song smiled and patted his daughter’s shoulder.

“Go on, I’m curious as well, you never let me see your phone.”

The girl hesitated for a long time and looked at Lu Zhou. She finally replied in a small voice, “Stuff like ‘yikes’...

“They’re all commenting on it, so I commented on it as well. I mean, you’re actually pretty handsome, so...”

The lobby went silent for a second.

Luo Wenxuan nearly laughed out loud. Han Mengqi covered her mouth with her hands and turned around. She tried to control her laugh, which made her look as if she were in pain.

As for Lu Zhou, he was muddled.

*Yikes?*

*The hell is yikes?*

Manager Song suddenly pulled his daughter aside.

“What the hell is this?”

“Didn’t you tell me to say it?” the girl said.

Dean Qin coughed and tried to diffuse the situation. He said, “She’s just a kid, I’m sure Professor Lu won’t take it to heart.”

Lu Zhou: “...”

Lu Zhou obviously didn’t care about what a kid said.

After all, he was quite confident in his looks.

However, Manager Song seemed a little unhappy.

Due to this incidence, during lunchtime, the teachers’ tables were given some extra delicious steamed crabs. Even Lu Zhou, who normally didn’t like seafood, ate several plates full of crabs.

“This stuff pairs well with alcohol,” Old Tang said as he munched on a crab leg while drinking rice wine.

Another professor replied, “Haha, should we come back in the spring?”

“To Purple Mountain again?”

“Okay then, I’ll organize our next trip, we can go Beidaihe instead.”

“Beidaihe in spring? What a horrible idea.”

While the mathematics professors were chatting, Lu Zhou quietly ate his crabs. He suddenly remembered something.

“Oh yeah, what are we doing in the afternoon?”

Professor Tang, who was filling his drink, said, “I think we’re going on a hike.”

*Hiking...*

*Sounds so boring.*

Lu Zhou thought for a bit before asking, “Can I not go?”

Professor Tang smiled and said, “Of course you can, but the evening barbecue is at the top of the mountain. Let me tell you, Old Lu went to the villages and bought several barrels of fish just for this. It would be a shame if you missed this barbecue!”

When Lu Zhou heard there would be grilled fish, he hesitated for a second.

Even though he wasn’t interested in hiking, he was quite interested in eating.

Especially when it came to barbecued fish...

“Then... I guess I’ll go.”

Chapter 683: Night On Purple Mountain

During the afternoon, the sun was less piercing. When cool autumn winds blew through the mountains, everyone felt relaxed and comfortable.

The afternoon activity was still hiking, but unlike the morning hike, this hike was divided into six groups, and each group was made up of five or six people.

Wang Peng was obviously in Lu Zhou’s team. Luo Wenxuan only came to Jinling half a year ago, so he didn’t know a lot of the other faculty members. Plus he didn’t want to try and pick up girls, so he joined Lu Zhou’s team.

Han Mengqi, Assistant Lin, and another lady from the foreign language department also joined Lu Zhou’s team. The lady from the foreign language

department had luscious long black hair. She majored in Spanish and became a counselor last year. She was bubbly and extraverted. Even though she was the only one from the foreign language department in this group, she seemed to fit in well.

“Oh yeah, Professor Lu, is this your first time coming to Purple Mountain?”

Lu Zhou thought for a bit and said, “Not quite.”

After all, his mansion was at the bottom of the mountain, taking a stroll outside his house counted as walking up the mountain.

“Us locals rarely come here.”

“You’re from Jinling?”

“Yeah, what about you?”

“I’m from Jiangling.”

The counselor from the foreign language department smiled and said, “Jiangling, sound pretty similar. Haha, it seems like we’re quite destined for each other.”

Lu Zhou: “...?”

You count this as destined?

With someone constantly talking along the way, the hike wasn’t too boring. They took some breaks and walked for around an hour. They passed by a beautiful maple tree forest and decided to stop and rest.

Before Lu Zhou could find a place to sit down, the female counselor held his arm and gave Wang Peng the camera. When Wang Peng looked at Lu Zhou, Lu Zhou gave Wang Peng a helpless expression and smiled. Wang Peng shook his head and took a few steps back to take the picture.

Han Mengqi was sitting on a bench nearby. Her legs dangled off the bench as she looked at the two people taking the photo. There was a glimpse of envy in her eyes.

She wanted to be in the photo as well.

However, for some reason, whenever a thought like this came to mind, she would choke up and couldn't say anything.

"Do you like Professor Lu?"

Han Mengqi nearly jumped off the bench. She turned around and saw that it was Assistant Lin. She gave Assistant Lin a death stare.

"No, no! What are you talking about?"

Lin Yuxiang smirked and blinked innocently.

"Nothing, it's just that you've been staring at him the whole day. I'm just curious."

Han Mengqi stared at Lin Yuxiang and didn't say anything.

After a while, she coughed.

"Forget about me... What about you?"

"Me?" Lin Yuxiang smiled and said, "Professor Lu is not my type, I don't like him."

That frivolous reply made it difficult to tell if she was lying.

After all, this was how she normally spoke.

Han Mengqi stared at her for a while and couldn't tell if she was lying. She pretended as if she saw through Assistant Lin.

"Liar."

Lin Yuxiang smirked with a hint of ambiguity as she said, "Why would I lie to you? Hmm... I guess I wouldn't mind if something were to happen between us."

Han Mengqi instantly blushed. She was like a frightened rabbit, and her entire demeanor changed.

"Isn't that weird?! You don't like him, why would you... want anything to happen?"

Seeing how flustered the little girl was, Lin Yuxiang couldn't help but tease her.

"It's not weird at all. He's handsome, rich, he doesn't have any bad qualities. He's quite charismatic as well. It's not just me, a lot of other people think the same, just like... that lady who's dragging Professor Lu for a photo. Her eyes are glowing with lust."

"Well..."

Han Mengqi stared straight at Lin Yuxiang. She puckered her lips and didn't say anything.

Lin Yuxiang looked at her and suddenly felt a twinge of resentment.

However, this resentment quickly disappeared. She smiled at the little girl and said, "I think you're the weird one, you clearly have feelings, but you don't want to admit to it."

Before Han Mengqi could reply, Assistant Lin turned around and took two steps. She then stopped and said, "However... if you want to be more straightforward toward Professor Lu someday, I can help you."

She turned around and walked away.

Han Mengqi looked at Lin Yuxiang walking away and muttered to herself, "Why would I believe you..."

"Wait no, I don't like him!"

Han Mengqi stomped her feet. She didn't know why she was angry. She got up and walked away.

...

In the evening, the sun started to disappear behind the mountain.

The six teams arrived at their destination. They were at one of the Purple Mountain peaks.

Even though this was supposed to be the peak, Lu Zhou felt like they could walk a little further. However, there weren't any smooth roads ahead. Only a few well-built male teachers and some other female teachers continued to



explore the mountain. The rest stayed at the gathering point and set up a charcoal grill.

This was a dedicated barbecue spot, so it was fine for them to have an open flame. However, they had to take away their rubbish and make sure to be safe.

Wang Peng walked over holding a plastic bucket. When he saw Lu Zhou sitting there quietly, he smiled and asked, “Why aren’t you choosing your fish for grilling?”

“You can choose for me, I like eating, not grilling.”

“Okay then.” Wang Peng threw a few catfish into a plastic bucket and stood up. “I’ll go get some more.”

The sky was filled with a deep shade of orange as the golden ginkgo leaves in the distance blended seamlessly into the sky.

The flames on the charcoal grill burned slowly. Some of the ladies from the foreign language department took out their phones and excitedly took group photos in front of this beautiful scenery.

As for Lu Zhou, he wasn’t interested in photos. He sat down comfortably against a parasol tree and took out his phone to read a thesis.

The area was soon filled with the scent of barbecued fish.

Wang Peng was holding a couple of catfish skewers. He smiled and said, “Barbecue is not my only cooking skill.”

Lu Zhou asked, “What else can you cook?”

“Hotpot.”

Lu Zhou: “That counts as cooking?”

Wang Peng smiled and said, “Anything related to food is cooking!”

The barbecue party was held until 8 pm.

They picked up their rubbish and went on a bus, which sent them back to their hotel.

Lu Zhou wanted to rest in his room, but Old Tang suggested that he experience the hotel's hot spa.

Lu Zhou had to admit, the hot spring was pretty nice. He didn't even care whether or not it was manmade or natural.

Lu Zhou wiped himself dry and put on some clean clothes. He bought a can of coffee at the vending machine and was about to return to his room. He then saw Han Mengqi with her wet hair. She was sitting on a chair nearby.

Lu Zhou looked at the vending machine and contemplated it for a second. He then bought a small carton of warm milk and walked toward her. He sat down next to her.

"Your hair isn't dry yet, you're going to catch a cold." Lu Zhou gave her the carton of warm milk. He opened his can of coffee and took a sip.

Han Mengqi avoided eye contact as she gently nodded.

"Oh, okay, I'll dry it later."

Lu Zhou nodded and didn't say anything.

He looked at the view outside the window. He then stood up and was about to leave.

However, before he could take a step, Han Mengqi suddenly stopped him.

"Wait a second."

Lu Zhou turned around and asked, "Why?"

Han Mengqi grabbed her knees and curled into the seat. She then asked quietly, "Can you sit here with me for a while?"

Lu Zhou thought for a bit and nodded.

"Sure."

He sat back down and the two stayed silent.

Lu Zhou drank his coffee and looked at Han Mengqi.

He felt like there was something Han Mengqi wanted to say.

However, he didn't take it too seriously, nor did he ask her.

Everyone had their own worries and secrets. It wasn't a polite thing to ask about them.

A few minutes went by.

Han Mengqi held her knees tightly and looked at Lu Zhou. She quietly asked a question that surprised Lu Zhou.

"What do you think about my sister?"

"Chen Yushan?"

Lu Zhou looked at the city lights in the distance and felt the evening breeze on his face. He thought about this question for a while and said, "She's a close friend with whom I get along with."

There were two types of friends.

One was the type of friend with common interests, like Luo Wenxuan.

The other was the one without any common interests, but they could get along well.

For him, Chen Yushan was the rare kind, the ones he got along well despite not having common interests.

As for his other feelings...

He carefully thought about it and didn't think he had any.

Han Mengqi looked a little disappointed, and she looked down as she quietly muttered, "That's it?"

Lu Zhou looked at her and said, "Why, what's wrong?"

"Nothing..."

Han Mengqi buried her chin between her knees and lowered her head.

Because of the lighting, Lu Zhou couldn't see her face. He could only hear a soft whisper.

"Nothing..."

Chapter 684: Sorry!

They didn't speak again that night.

The next morning, which was also the last day of the field trip...

According to the itinerary, the squad was originally going to go sightseeing, pay a visit to the pagoda, and visit the Tibetan Pavilion.

However, some of the Jinling local teachers weren't interested. Lu Zhou had already been here twice before, so he wasn't interested either. Hence, some of the newly-recruited staff members and other assistants packed their bags early in the morning and went about their way.

As for the old professors who didn't plan on going, they set up some card games in the hotel lounge.

The female counselor, who kept chatting with Lu Zhou yesterday, knocked on Lu Zhou's door early in the morning. She invited him to visit the pagoda together, but Lu Zhou wasn't interested at all. She ended up having to go with her female friends.

Lu Zhou ate some breakfast and walked to the hotel's activity room. Since Luo Wenxuan and Dean Qin were also here, they started to play cards.

"A pair of aces."

"Pass pass!" Luo Wenxuan waved his hand and smiled. He clearly couldn't beat Dean Qin's aces.

Dean Qin smiled and looked at Lu Zhou.

"Then it's still my turn..."

“Bomb.”

The four-of-a-kind “bomb” was thrown on the table. Luo Wenxuan nearly slid off the sofa.

“F\*ck me! You still have some cards up your sleeves.”

Lu Zhou smiled and didn’t say anything. He dropped the pair of Jacks on the table and threw down the remaining 10.

Dean Qin looked at his cards and frowned. He sighed and said, “I shouldn’t have thrown the pair of queens.”

“Maybe if you didn’t play your pair of queens, I would have played differently.”

“You know what cards I have?”

“Looking at it from a probability perspective, I can calculate the chances of every card in your hand.” Lu Zhou smiled while shuffling. “Actually, this is just a number game, I prefer to play blackjack.”

“I’m not playing anymore,” Luo Wenxuan said while leaning back on the sofa. “This guy is ridiculous. No one could beat him in Princeton, much less here.”

He lost twelve times in a row, and his mentality had completely exploded.

He finally decided not to play cards with the Fields medalist anymore.

Lu Zhou looked at Luo Wenxuan and smiled.

“Last round, I’ll show you my cards.”

Luo Wenxuan bounced up from the sofa and immediately threw two hundred-dollar-bill on the table. He rubbed his hands and smiled.

“Okay, let’s bet big this time.”

Lu Zhou: “...”

Dean Qin: “...”

They were playing for a few yuan earlier, but now, there was suddenly two hundred yuan on the table...

...

In the end, Lu Zhou still won.

Even though the technique was one aspect, luck still played a huge part.

And Lu Zhou was obviously a lucky guy.

He had both of the jokers and three of the aces. His luck was through the roof. Forget about showing his cards, he could have won with his eyes closed.

Lu Zhou wanted to lose and send his winnings back, but Luo Wenxuan wasn't having a good day.

Lu Zhou waved the cash in his hand and stood up. He let Old Tang, who just got out of the spa, take his spot.

Lu Zhou left the activity room and went out of the hotel. He was about to go shopping nearby when someone called his name.

"Wait a second, Professor Lu."

Lu Zhou looked back and saw the little teenage girl he met yesterday. She half-ran toward him while holding a book.

"Um, about yesterday, I'm sorry..." the little girl said while looking down at the floor.

Lu Zhou looked at the girl and smiled.

"It's fine, I understand."

After all, he had a lot of fans on Weibo. There was bound to be some that were jealous of his looks.

Once the haters started to form an opinion, more and more people would jump on the bandwagon even though it didn't represent their real thoughts. Therefore, Lu Zhou never took the haters' comments seriously.

The little girl sighed in relief and took out her math textbook and a pen. She passed it to him and asked, "Um, I want to apply to the city's top high school... Can you sign this for me?"

“No problem.”

Lu Zhou took the pen and signed his name.

After thinking about it, it felt too shallow. In the end, he neatly wrote down a line of words and gave the book back to the girl.

“Education is our passport to the future, for tomorrow belongs to the people who prepare for it today.”

The girl quietly read out the line. Suddenly, she looked up at Lu Zhou happily and said, “Thank you! Your handwriting is so nice.”

Lu Zhou smiled and said, “Make sure to study hard.”

“Yeah! I will.”

When the little girl went back into the hotel, Lu Zhou turned around and started to walk down the mountain. However, he happened to meet an acquaintance.

“Professor Lu! Haha, what a coincidence seeing you here.”

Liu Wanshan’s face was bright red. Lu Zhou was surprised to see him.

“Manager Liu? What a coincidence, you’re here as well?”

Liu Wanshan smiled and shook Lu Zhou’s hand.

“Yeah, what a small world. I’m on vacation at the nursing home next door. I know a good teahouse near here, do you want to go?”

Since Lu Zhou didn’t have anything else to do, he nodded and replied, “Sure, you know the way?”

Liu Wanshan smiled and said, “Haha, of course I do. It’s not easy to find that place, come with me.”

It wasn’t as difficult as CEO Liu had said. The tea house was halfway up the hiking trail. It was a place for the visitors to rest and look at the beautiful Purple Mountain scenery. It was also a good place to take photos.

The pair found a quiet place with a good view to sit down and ordered some tea.

“How’s your business?”

“It’s all going great, thanks to you!”

Liu Wanshan took a sip of the Longjing tea and moistened his throat. He smiled and began to talk with Lu Zhou about how Zhongshan New Materials was doing.

Ever since Star Sky Technology bought their shares, Zhongshan New Materials had also received technical support from Star Sky Technology, which reduced their patent licensing fees. Zhongshan New Materials had been rapidly growing in the Chinese market.

Particularly, after they recently acquired two local battery factories and updated the production line, Zhongshan New Materials now had control over a full lithium-sulfur battery production line. They had been receiving orders from many electric vehicle and phone companies.

Due to the impact of the controllable fusion technology, the entire Chinese battery market was expanding. Zhongshan New Materials was CEO Liu’s most profitable venture, turning over billions of yuan per month.

There was also the SG-1 superconducting material. Even though the chance of it being regulated by the government was high, the Americans and the Europeans were desperate to get a piece of this thing, which would make them a hefty profit.

“What about you? You’re still researching aerospace?”

Lu Zhou took a sip of the tea and said, “I guess so.”

Liu Wanshan nodded and didn’t ask anymore.

After so many years in business, he knew exactly what he could ask and what he couldn’t.

It was obvious that Lu Zhou was reluctant to speak about this, so he changed the topic.



“Oh yeah, speaking of batteries, there’s a new electric vehicle industry summit in a few days. Apparently, they will discuss the new unified battery standard. A high-level official from the Ministry of Industry and Information Technology is going to be there.”

*Electric vehicle summit?*

A light bulb suddenly flashed in Lu Zhou’s mind, so he asked, “Where is this summit?”

“It’s right here in Jinling, what, are you interested?” Liu Wanshan smiled and said, “Well, if you’re interested, I have some invitations that I can send you.”

Lu Zhou smiled and replied, “Thanks so much.”

“No worries! This is nothing.”

The two sat there and kept drinking tea until noon.

Lu Zhou looked at his watch and saw the hotel lunch buffet was about to open, so he said goodbye to Liu Wanshan and left the tea house.

While walking back to the hotel, he felt like someone was following him. He frowned and glanced back, but he didn’t see anything.

“Is it just an illusion?”

Lu Zhou looked ahead and continued to walk toward the hotel.

Once he arrived at the hotel, the buffet had already begun.

Lu Zhou happened to bump into Wang Peng, so he sat across from Wang Peng.

Lu Zhou suddenly remembered his weird feeling on his way here, so he told Wang Peng.

“You feel like someone is following you?” Wang Peng frowned and said, “Maybe they’re from the Army General Staff Department?”

“General staff?”

“Yeah, there are two security departments in charge of your safety. I’m from the state security side, but I’m not sure about the general staff side. However, you don’t have to worry about your safety. Security has been patrolling this area ever since you’ve been on this mountain. If you’re still worried, I can call the general staff side.”

Lu Zhou said, “I don’t think it’s necessary. If I knew it would be this troublesome, I wouldn’t have come on this field trip in the beginning.”

Wang Peng smiled and said, “No, please, we don’t want your normal daily life to be affected. Do as you wish.”

*Not to mention...*

*Lu Zhou never goes out, he stays in the laboratory with a bunch of older men all day. If he never goes out, he’ll spend the rest of his life as a single man.*

*If this were anyone else, the government wouldn’t care.*

*But Lu Zhou’s love life...*

*This was something the government officials are concerned about.*

Lu Zhou shook his head and didn’t say anything.

He didn’t like to trouble others. He rarely delegated work to others.

However, even if he didn’t want his security to be so extensive, the Ministry of State Security wouldn’t agree. After all, his personal safety wasn’t just his own business, it was also the country’s business.

Suddenly, Lu Zhou had a weird idea.

*Why not get a “terminator” bodyguard?*

*With Xiao Ai’s current intelligence and the manufacturing abilities of the space shuttle assembly center, it might be possible.*

However, he quickly gave up on this idea.

Xiao Ai was like his child; what kind of person would let their child be their bodyguard?

Besides, Xiao Ai's mind was like a blank piece of paper. Lu Zhou didn't want to fill it with violent things.

Otherwise, Xiao Ai could become really scary, really fast...

Chapter 685: Only Kids Do Multiple Choice Questions

The faculty field trip lasted two days. On the morning of the third day, the bus stopped at the hotel entrance. The faculty members then went on their way back to Jin Ling University.

Lu Zhou didn't do any research over the past two days, and his trip to Purple Mountain relaxed him quite a bit. His stress from the beginning of the year was finally relieved.

As Lu Zhou sat on the bus with his head leaning against the window, he began to reminisce about this field trip. He heard Dean Qin and the dean of the foreign language department talk about something in the back of the bus.

"Around five to six couples."

"Five to six, not bad."

"Looks like we'll be attending some weddings next year."

"Oh yeah, did Professor Lu from the mathematics department find a partner yet?"

"I don't know, the female counselor from your department seems to like him, who knows if they're a thing or not."

"I'll go ask."

Lu Zhou was sitting in front of them. His eyebrows furrowed, and he coughed heavily.

The two old men didn't realize Lu Zhou was sitting so close to them. They then laughed awkwardly and stopped talking.

After Lu Zhou got out of the car, he went straight to the mathematics department building. On his way there, he called Chen Yushan.

She quickly picked up. A pleasant voice traveled through the phone.

“How was it? Did you have fun?”

“It was fun.”

Chen Yushan smirked and said, “That’s good, you’re always in the laboratory, I’m worried that something is going to go wrong.”

Lu Zhou: “Nothing is going to go wrong, when I was in Princeton, I stayed at home for a month or two at a time. Nothing happened other than my skin getting paler. Oh yeah, when I went to the Purple Mountain hotel this time, I ran into Liu Wanshan.”

Chen Yushan curiously asked, “Liu Wanshan? The boss of Zhongshan New Materials? You guys are talking business again?”

“Not quite, we just chatted.” Lu Zhou paused for a second and said, “There’s going to be an alternative energy vehicle summit in Jinling in a few days. I want to go, try to see if you can get me an invitation.”

Even though Liu Wanshan had spare invitations, Lu Zhou didn’t want to use them.

It wasn’t like Lu Zhou couldn’t get an invitation himself.

Chen Yushan replied concisely, “Ok, I’ll ask them, there should be no problem.”

Lu Zhou nodded and said, “Okay, thanks.”

After the phone call ended, Lu Zhou arrived at his office.

Unsurprisingly, Luo Wenxuan was already here. He was talking with Kong Jie about the various methods of processing coffee beans. Kong Jie had a professional smile on her face, and she clearly wasn’t interested in talking with Luo Wenxuan. Unfortunately, Luo Wenxuan didn’t notice this.

Lu Zhou shook his head and interrupted Luo Wenxuan’s chattering.

“Stop interrupting my assistant’s work.”

Luo Wenxuan realized what he was doing, so he looked at Assistant Kong and smiled awkwardly.

“Oh? I’m sorry.”

“It’s fine, enjoy your coffee.”

Kong Jie smiled conservatively and didn’t say anything else. She then turned around and left.

Luo Wenxuan looked at her walking away and reluctantly glanced at Lu Zhou. He lowered his voice and said, “This is not a good time to come here.”

Lu Zhou rolled his eyes and said, “Are you crazy, this is my office, your office is in the building next door.”

“No, I meant, couldn’t you have gone home and put your luggage there?” Luo Wenxuan scratched his head and said, “I thought you weren’t coming here today.”

“Unfortunately, I don’t have that much free time.” Lu Zhou sat down at his desk and tapped on his keyboard. Soon, the printer next to him began to hum.

Several warm sheets of paper with freshly printed ink on them were pushed out of the printer. Lu Zhou grabbed the stack of papers and patted it on Luo Wenxuan’s shoulder as he said, “However, congratulations to you, your vacation is also over.”

“What’s this?” Luo Wenxuan took the stack of A4 papers from Lu Zhou and glanced at it. He looked shocked. He said, “East Loop project... is about to begin?”

The so-called East Loop project was to build a large circular orbital hadron collider in outer space. Lu Zhou was the project sponsor, and the project had already passed the preliminary review stage, and it was now entering the review stage.

So far, there were two plans. One was to find a suitable area on the surface on the moon, and the other was to build it in geosynchronous orbit. The former depended on their ability to deliver payloads to the moon, while the

latter depended on their ability to construct large orbital space stations. Neither of them was easy.

However...

This project passed the preliminary examinations.

Luo Wenxuan was astonished.

Lu Zhou looked at him and chuckled as he said, "When have I ever joked about academic things with you? I talked the talk, now I'm walking the walk."

Lu Zhou paused for a second. He then continued, "This project has already entered the design stage. We will cooperate with many units, like the Institute of Physics and the Institute of Mathematics at the Chinese Academy of Sciences, as well as the China Aerospace Science and Industry Corporation, Institute of High Energy Physics, etc. I want you to work in Beijing for a while."

"Beijing... Like a business trip?"

"Yeah, what, you don't want to go?"

"Not that, it's just..." Luo Wenxuan looked a little distressed as he said, "You're not going to send me away just for a little matter like this, right?"

Looking at how uncomfortable Luo Wenxuan was, Lu Zhou smiled in his mind.

*It's your fault for drinking coffee in my office all day, now are you happy?*

Of course, Lu Zhou didn't purposely want to ruin Luo Wenxuan's potential love life... He didn't even have time to take care of his own love life.

However, Luo Wenxuan's actions had been starting to get a little ridiculous.

Just in case, Lu Zhou felt like it would be good for him to leave and calm down for a while.

"Come on, it's Beijing we're talking about. This is just a business trip, you'll be back in six months. I think going away and calming down is good for you," Lu Zhou said as he looked at Luo Wenxuan's reluctant face. He knew Luo Wenxuan wasn't going to be obedient, so he said, "If there's any work progress, you can report it directly to Assistant Kong."

Luo Wenxuan paused for a second. He suddenly smiled, and he looked grateful as he said, “Bro, thanks!”

Lu Zhou frowned and warned him.

“I’m warning you, work is the most important thing.”

Luo Wenxuan smiled and said, “Rest assured, I know exactly what’s important!”

Lu Zhou: “...”

*I hope so.*

However, even though Luo Wenxuan spoke frivolously, he had never let Lu Zhou down.

When Lu Zhou thought about this, he felt a little more confident.

Luo Wenxuan: “Then I’ll leave... Oh yeah.”

Lu Zhou: “What?”

Luo Wenxuan stared at the A4 papers in his hand and hesitated for a bit before he said, “The 750 GeV signal... It’s been so long, have you still not given up?”

Even though the 750 GeV signal wasn’t on the East Loop project plan, Luo Wenxuan’s intuition told him that this project was made for the 750 GeV signal.

Or at least part of the project was for this signal...

Lu Zhou paused for a second and smirked.

“Have you seen me ever give up on anything?”

Chapter 686: Alternative Energy Vehicle Summit

Lu Zhou was indeed a little selfish when it came to the East Loop project.

The reason why he tried so hard to realize this project, was partly because of the 750 GeV signal.

He knew that his own calculations didn't lie. And the "errors" that appeared on the two detectors weren't just a coincidence. Even though the LHCb experiments had found nothing, he believed that the experimental method was wrong.

He couldn't rely on CERN anymore.

He needed a large hadron collider that was his alone. Or at least one that he had total control over. Only then, could he conduct experiments exactly how he wanted.

Of course, before making these blueprints a reality, he had to face the things in front of him.

It was the middle of October when the Alternative Energy Vehicle Summit was held.

Big names in the automobile industry, academic leaders, and other capitalists who were interested in this industry all gathered in this city.

With the invitation that Chen Yushan was able to get, Lu Zhou arrived at the summit.

After he showed his invitation letter to the reception, he was about to walk inside the venue. However, he was stopped by a lady standing at the entrance.

"Sir, your seat is over there."

Lu Zhou looked at the corridor the lady was pointing at and asked, "Isn't the auditorium over there?"

The lady politely said, "You have a special expert-only invitation. It's on the right side of the auditorium, please use the right corridor to enter the venue."

Lu Zhou looked at his invitation letter, which had the words "Special Expert Invitation".



“There are special invitations?”

The lady was baffled, and she said, “Sir, did you not realize this prior to receiving your invitation?”

Lu Zhou smiled awkwardly and said, “I... My company’s CEO helped me get this invitation, I didn’t look at it carefully.”

“I’ll take you there then.”

Lu Zhou nodded.

“Okay then, thanks.”

Alternative energy vehicle was the first application of the new controllable fusion technology. After the standardization of vehicle batteries, a large amount of capital would be invested in alternative energy vehicles. This would accelerate the Chinese automobile market and eventually eliminate traditional gasoline cars.

The fact was, this trend had existed before the lithium-sulfur battery breakthrough.

For high-tech companies focused on research and development, like Star Sky Technology, this summit was undoubtedly a valuable opportunity. After all, after the battery standards were set, battery research and development would change.

Even though Lu Zhou wasn’t interested in making money, he was a bit short on cash.

He burned hundreds of millions of yuan into the space shuttle project and only made a little progress. Who knew how much he would have to spend in the future.

Soon after, the summit began.

Lu Zhou opened the recording app on his phone and asked Xiao Ai to organize the conference contents into notes. He then focused on the presentation.

The first to walk on stage was the second-highest-ranking official from the Ministry of Industry and Information Technology, Secretary Yang Zhongyuan.

After a round of applause, he began to give a normal conference opening speech.

Honestly, there wasn't anything particularly important in this speech. However, there was one thing that attracted Lu Zhou's interest. During his opening remarks about alternative energy vehicles, Secretary Yang mentioned the keyword "smart city" multiple times.

Generally speaking, speeches like this often conveyed the Communist Party of China's true intentions.

"The development of science and technology is rapidly changing our society. With the rapid growth of the Internet, the Internet of Things, big data, cloud computing, artificial intelligence, etc, smart cities will slowly emerge into our lives. Controllable fusion has brought us cheap and clean energy. This new energy allows us to realize everything in our blueprint for the future."

Secretary Yang paused for a second before he continued, "We have clearly seen that our economy and society are racing toward 'artificial general intelligence', and in some cases, we are at the forefront of the world.

"Informatization and electrification of cities will be our focus for the next five years. I hope you all can continue to use this momentum to build a future that is full of prosperity."

Secretary Yang nodded in midst of the applause and announced the start of the summit.

When the summit host walked on stage, Lu Zhou seemed to be in deep thought. He wrote down a line in his notebook.

[Lithium-air battery.]

Lithium-air batteries were more futuristic than lithium-sulfur batteries as they relied on external oxygen to generate oxides. Theoretically, they would have a higher volume energy density than lithium-sulfur batteries. In fact, the first debris he got was of a lithium-air battery. Therefore it shouldn't be difficult to reverse engineer the technology.

Actually, he didn't even need to completely reverse engineer the technology. He just had to follow the technical routes seen on Debris No.1 and let the

Institute of Computational Materials of the Institute for Advanced Study do the rest.

However, Lu Zhou wasn't sure if he should create this technology right now or later.

"I'll let Yang Xu start a research on oxygen molecular gas exchange membranes first."

Lu Zhou's eyebrows furrowed as he began to think. He crossed out the words "lithium-air battery" and wrote the words "gas exchange membrane". He then closed his notebook.

He heard a voice beside him.

"Isn't this speech interesting?"

This person was clearly talking to him.

Lu Zhou looked across and was suddenly surprised.

The man sitting next to him, who looked a bit like ET, smiled kindly and reached out his right hand.

"It's a pleasure to meet you, Professor Lu."

Lu Zhou shook his hand and gave a simple response.

"Hello, CEO Ma."

Jack Ma smiled and said, "I'm not a CEO anymore, you can call me Jack Ma."

Lu Zhou was thinking about his own problems, so he didn't even realize that he was sitting next to the boss of Alibaba. However, this wasn't a huge deal. Lu Zhou was just slightly surprised.

In terms of money, Lu Zhou definitely had less than Jack.

In terms of status...

That wasn't easy to compare.

“Mr. Ma, you’re also interested in alternative energy vehicles?”

“I’m not interested in alternative energy vehicles per se.” Jack Ma shook his head and said, “I’m interested in this industry.”

“The alternative energy industry?”

“Nope, the future industry.” He paused for a second and said, “Just like Secretary Yang had said, electricity will become cheaper and cleaner. Many costly ideas that couldn’t be realized, might become a reality. Not just alternative energy vehicles, but many other great inventions will come to life.”

Jack Ma suddenly turned his head and smiled at Lu Zhou.

“For example, the logistics drones you proposed six or seven years ago was definitely unattainable back then. But in four to five years, our streets might be filled with flying drones. In the future, our cities will be more like an information-based community, people will only need to connect to the Internet and will be able to do everything through the Internet. People released from repetitive manual labor will be able to do creative work, enriching our civilization.”

Lu Zhou smiled and said, “I thought you weren’t a manager anymore.”

Jack Ma smiled and said, “I’m not a manager, but I’m still an investor. Even though I can’t get to space, that doesn’t mean I’m not interested in space. Of course, I’m more interested in you, Professor Lu.”

“Me?”

“Yeah, I have a lot of ideas. But not only do you have ideas, but you also have the ability to realize those ideas,” Jack Ma said while staring at Lu Zhou with a twinkle in his eye.

Lu Zhou went silent for a while.

He suddenly smiled and replied, “I’m a little embarrassed you think so highly of me.”

Jack Ma smiled and said, “You’re too humble.”

He took out a business card from his pocket and handed it to Lu Zhou.

“If you have any interesting projects that need investment, you can always contact me. Even if I can’t help you, I can introduce you to someone who can.”

*I see...*

*That’s why you started to talk to me, you want to invest in me?*

Lu Zhou took the business card and nodded as a show of thanks.

“If necessary, I’ll definitely call you.”

Chapter 687: Lithium-Air Battery Project

Jinling Institute for Advanced Study.

Institute of Computational Materials.

Because it was already lunch break, the people in the office were quite relaxed. Other than Qian Zhongming, who was still reading through theses, most of the people were either browsing the latest industry news or chatting while drinking coffee.

“I heard Jin Ling University had a group date a few days ago?”

“Yeah, I heard about it as well. I think they had an autumn field trip with the foreign language department. They stayed at the Purple Mountain hotel for two nights.”

Liu Bo sighed and said, “Damn it... How come the chemistry department never hosts events like this?”

Most of the researchers at the Jinling Institute for Advanced Study had faculty positions at nearby universities, most of them being Jin Ling University, followed by the Jinling University of Science and Technology. After all, the head of the institute was Lu Zhou, Nobel laureate in chemistry and the founding father of computational materials science. Even in the international field, the Institute of Computational Materials was one of the top research institutes in the materials science field.

Therefore, no university would refuse to hire researchers from an institute like this.

Hence, they should also receive a share of the faculty benefits.

Unfortunately, the chemistry department didn't have any activities this year, and October was going to pass by quietly.

Yang Xu laughed when he heard Liu Bo's sigh. He made himself a second cup of coffee as he said, "Don't count on it. Even if the chemistry department did have a group date, you think those foreign language girls will be interested in us? Forget about the rest, just our hairline alone will kill our game."

Not only did the people in the natural sciences, such as biology, chemistry, environment, and material sciences, not make any money, but they didn't have good hairlines either.

In order to accurately measure a set of data, they often had to stay in the laboratory until after midnight. The old professors were fine, after all, they could delegate the work to noob researchers. However, this meant that the noob researchers had the short end of the stick.

Of course, one should stay hopeful.

Liu Bo wasn't happy, and he immediately refused.

"I mean, it's not like our hairlines are much worse than those from the mathematics department, right?"

Yang Xu casually drank his coffee and shook his head as he said, "Not quite, have you seen Professor Lu's hair?"

Liu Bo was speechless, and it took him a while to think of a comeback.

"I think he's an exception."

Yang Xu smiled and said, "Okay then, when you get off work, take a stroll around the chemistry department and mathematics department buildings. Find staff members who are around the same age and compare their hairlines."

Qian Zhongming, who was scrolling with his mouse wheel, couldn't help but join in on the conversation.

"It's probably not easy to find staff members who are around the same age..."

The office became silent.

No one said anything.

In the end, Liu Bo broke the silence.

“Let’s not talk about this sad topic...”

This time, everyone in the office agreed with one another, and no one said anything else.

When it came to their actual age and biological age...

This topic was too heavy for these noob researchers to talk about.

The lunch break was quickly over, and at around one o’clock, the crowd sitting at their desks began to start working. By half-past one, everyone was working on their tasks.

Yang Xu returned to his office and sat down. He opened his laptop.

He suddenly saw a new email message in his mailbox. It was from Lu Zhou.

“The application of high permeability oxygen molecular membranes to the lithium-air battery?”

After glancing at the email title, Yang Xu raised his eyebrows. He quickly downloaded the attachment in the email and opened it carefully. The more he read, the more shocked he was.

Lithium-air batteries had always been a controversial topic in the academic world. Many people supported the idea, but many people also questioned it. The most basic reason was that the extremely reactive nature of lithium metal made it reactive with almost all gases in the air except for the noble gases.

If someone wanted to solve this problem, they would have to separate out the oxygen in the air and only allow oxygen gas to enter the reaction system.

The most realistic method was to add a layer of molecular sieve or membrane that only allowed oxygen molecules to contact the lithium metal surface. This might sound simple, but this was extremely difficult to achieve.

However, in this email attachment, not only did Professor Lu point out a clear research pathway, but he also listed several seemingly feasible technical ideas.

“Did he do this while studying the Yang-Mills equations?” Yang Xu said after reading the last line of the attached document. He sighed softly, leaned on his chair, and stared at the ceiling. He couldn’t help but say, “This guy really is a monster...”

He did this while researching a world-class problem, is he even human?

Of course, Yang Xu didn’t know about one other thing.

If he knew that in addition to solving the Yang-Mills Equations, Lu Zhou also solved the miniaturization of controllable fusion problem, Yang Xu would begin to have doubts about his life...

Regardless, the technical ideas were there. Whether or not it would work, that would depend on them experimenting.

Yang Xu selected the email Lu Zhou sent him and forwarded it to his colleagues. He then stood up from his chair.

He walked to the cubicles and knocked on a door.

“New mission, guys, time to get to work.”

The researchers in the office looked up at him.

Qian Zhongming was the first to speak. He adjusted his glasses and said, “New mission? Is there a research project?”

Yang Xu said succinctly, “A high permeability oxygen molecular separation membrane. As for the technical information and experiment methods, I have sent them to your emails.”

High permeability oxygen molecular separation membrane?

The second Qian Zhongming heard this, he looked astonished.

Liu Bo, who was sitting at a desk nearby, also looked shocked. He spoke with a hint of excitement in his tone.

“High permeability oxygen molecular separation membrane? Is this research project about...”



“Yeah,” Yang Xu nodded and said, “our next research project is... lithium-air batteries.”

Chapter 688: New Way to Eat Bacon Sandwiches?

If lithium-sulfur batteries were like the nuclear fission of batteries, lithium-air batteries were like the nuclear fusion of batteries. The method of obtaining oxides from the outside air was the upper limit of the energy density of the lithium-anode battery.

Compared to traditional lithium-ion batteries, the energy density of lithium-sulfur batteries was an order of magnitude higher. Compared with lithium-sulfur batteries, lithium-air batteries were also an order of magnitude higher, in terms of energy density. Both the volume-energy density and mass-energy density were the same, a magnitude higher.

The only downside was that it probably wasn't suitable for mobile phones or satellites.

After all, the reason why the energy density of lithium-air batteries was high was that its oxides weren't integrated inside the battery, but were located outside the battery. Therefore, the battery needed to “breathe”.

Mobile phones were often kept in tight pockets and satellites were kept away from Earth's atmosphere, making these devices difficult to take advantage of lithium-air batteries. However, for alternative energy vehicles or small drones, there wasn't a better energy storage device than lithium-air batteries.

Because of this, lithium-air batteries were much more difficult to create than lithium-sulfur batteries.

Not only was there the lithium dendrite problem, which plagued all lithium anode batteries, but lithium-air batteries also had extremely demanding material requirements. After all, lithium itself was a super reactive metal. Exposing it to the atmosphere meant one would have to make it react only with the oxygen in the atmosphere.

Not to mention numerous other complex side effects.

The key to solving this problem was to find a thin film that could filter out water vapor, carbon dioxide, and other gases in the air and can accurately and quickly screen through oxygen molecules.

In fact, this technology was present in Debris No.1.

Unfortunately, the damage done to Debris No.1 was relatively large, and the layer of film was located on the surface of the debris. Even using the data collected with a scanner gun, there would still be a certain degree of difficulty to reverse engineer this technology.

Fortunately, Lu Zhou could rely on his intuition in the field of computing materials and his understanding of carbon-based materials to narrow down several technical routes that seemed more feasible. He then handed these technical routes to the researchers at the Institute of Computational Materials.

Since he was an academic leader, he didn't need to work on every project himself. All he had to do was plan the research direction and find a reliable technical route.

If this technology succeeded, its impact would spread beyond the battery field.

From manufacturing to medical devices, a lot of fields would benefit from this technology.

The Alternative Energy Vehicle Summit in Jinling was held for a total of two days, during which Lu Zhou received a lot of business cards. Even though he rarely contacted people in the capital investment field, people in the field were extremely interested in him.

Whether it was because of the Ling Yun medal or because of Star Sky Technology's research and development advantage, many people had exchanged business cards with him.

And no matter their intention, Lu Zhou responded politely to everyone who was interested in him.

Even though he didn't need their help right now, who knew what the future could hold?

After all, not all projects could be funded by the state.

A week after the summit had ended, at the end of October...

Autumn was the perfect season for Lu Zhou to sit in his office and study mathematical problems. He unexpectedly received an email from Switzerland.

It was from Edward Witten.

In this email, in addition to his greetings, Witten walked about CERN's latest research progress.

Especially regarding the "M particles".

[In regards to the "M particles" you predicted in your thesis, an exploration project has been scheduled in this month's experimental plan. If everything goes well, we will receive the results at the end of the month. We have held many meetings for this experiment, and we are all looking forward to seeing interesting things in the experiment.

[Finally, I hope you stay healthy and work hard. If there are any updates, I will tell you as soon as possible, even though I think CERN's press releases are faster than my emails.

[Also, do you know about a kind of tofu that looks like cheese? I'm not sure if it's a Jinling specialty, but putting that in bacon sandwiches is very delicious, I recommend you to try it. Unfortunately, I haven't found it in any supermarkets here... Can you send me some if you can? I'll pay you back of course. 😊 ]

The emoji at the end nearly made Lu Zhou spit out his coffee.

*What the hell is chess-like tofu?*

*Is it fermented tofu?*

Lu Zhou tapped on his keyboard and sent an email back.

[I think I know what you want.]

Lu Zhou clicked "Send" and closed the webpage. He was about to read a new thesis he just downloaded when his student Wu Shumu walked in.

"Professor, are you going to eat at the cafeteria?"

“No, I have some documents to read... Oh yeah, if you can, bring me a bacon sandwich.”

“Bacon sandwich? Sure,” Wu Shuimu said as he nodded.

Lu Zhou said, “Also bring me a bottle of fermented tofu.”

Wu Shuimu: “...?”

Regardless, he had to follow the professor’s demands.

Wu Shuimu went to the supermarket and came back with a plastic bag.

“I brought you the sandwich... And the fermented tofu.”

“Thank you.”

Lu Zhou transferred Wu Shuimu some money for the food. Hesitantly, he spread some fermented tofu on the bacon sandwich and took a big bite.

The pungent, salty smell filled his nostrils. He leaned on his office chair and contemplated it for a bit. He looked at the tofu jar and threw it aside.

*For f\*ck’s sake!*

*It’s just salty as f\*ck, how does this taste good at all?*

...

The days quickly passed by, and it was soon the end of October.

Lu Zhou was preparing for the upcoming bidding conference for the moon landing project. He almost forgot about Witten’s email when he suddenly heard exploding news from CERN.

In CERN’s latest round of collision experiments, they tested the M particles predicted by Lu Zhou in his electrostrong interaction theory. Surprisingly, they were able to observe the existence of the particles from both the ATLAS and CMS detectors!

However, it was just a “signal”. The standard deviation was 2.5 and 2.7 sigma, so it was far from being classified as a “discovery”; however, it was still very exciting!

If this signal could be confirmed as a discovery, the physics community would finally find a piece of the puzzle that was outside of the standard model. The so-called “new physics”. People could finally give a clear explanation for things like the Yang-Mills existence and mass gap!

Also, this would become a major discovery, second only to the Higgs particle. It would be in the top ten greatest physics discoveries of the century!

Even if this century had only just begun...

Ever since this news was announced, it attracted a lot of attention from the international physics community.

The Brookhaven National Laboratory in the United States jumped on the bandwagon and announced that they were preparing to repeat the experiment and check CERN experimental results. Other high-energy physics laboratories around the world had also started to prepare for the arrival of this new particle.

High-energy physics institutes weren't the only ones that were ecstatic, the entire theoretical physics community was overjoyed at the possibility of a particle bridging the gap between the strong interaction and electromagnetic force.

Particle physics theses on arXiv reached a record high. Many PhD students were eager to use this potential discovery as their graduation thesis.

All of the physicists around the world were looking forward to this. The experiment at the Brookhaven National Laboratory was about to be carried out, and CERN's second experiment was carried out as scheduled.

However, China wasn't too excited about this news. The positron collider in Beijing didn't have the capability to repeat high-energy particle experiments.

However, even though the Chinese physics community stayed relatively calm, the aerospace field was blossoming.

On the first Friday of November, all the way in Harbin, a bidding conference for the manned moon landing project was held as scheduled...

Chapter 689: Secret Chapter

Five o'clock in the morning.

Harbin International Airport.

A bright silver plane slowly landed on the runway.

Lu Zhou looked at the city covered in the morning mist as he said, "This is my first time being up north."

Wang Peng looked outside the window and said, "It's my second time."

"Oh yeah?"

"Last time was around six years ago, we went to the border for a mission. On the way there, we stayed here for a day and a half."

"There's a mission up north?"

"There are missions everywhere."

Lu Zhou nodded and didn't ask what kind of mission it was.

First of all, Wang Peng probably wouldn't tell him, and secondly, it didn't have anything to do with him, so he wasn't interested in knowing.

After Lu Zhou got off the plane, a silver Buick was parked at the entrance. A man dressed in casual clothing got out of the car and opened the door for Lu Zhou. They drove to a hotel near the Harbin Institute of Technology.

This time, Wang Peng wasn't the one driving. Instead, the driver was from the State Administration for National Defense.

Unlike the conference in Beijing last time, the participants of this aerospace conference all had high statuses.

Because some of the content discussed at the conference was temporarily confidential to the outside world, both the identities of the participants and details of the conference were strictly confidential.

Therefore, Lu Zhou's excuse for coming to Harbin was to give an academic lecture at the Harbin Institute of Technology.

After they arrived at the hotel, two men, who were waiting at the hotel entrance, walked up to greet them.

One of them smiled and reached out his right hand.

“Professor Lu, long time no see!”

Lu Zhou shook his hand and smiled.

“Long time no see, Director Li.”

Director Li looked at the old man standing next to him and began to introduce him.

“Please allow me to introduce the principal of Harbin Institute of Technology, Academician Zou Yu.”

“Pleasure to meet you.”

“It’s my pleasure.” Academician Zou shook Lu Zhou’s hand and said, “I’ve heard many rumors about how young Professor Lu is, I guess the rumors are true!”

“You’re too kind.”

Director Li smiled and said, “Okay, enough small talk. You just got off the plane, so you didn’t eat breakfast yet, right? We haven’t eaten either, so let’s grab a bite at the hotel?”

The group of people quickly reached a consensus.

Especially Lu Zhou.

He spent the night on the plane and didn’t sleep well, and he had been starving this whole time.

Soon, breakfast was ready.

A bowl of steaming lamb soup was served first, followed by a flatbread filled with kebab meat. Even though they were simple dishes, it was surprisingly delicious. Especially the bowl of lamb soup. When Lu Zhou took a sip, he felt his whole body warming up. Even though he was way up north, he didn’t feel cold anymore.

The group of people sat at the table, eating and chatting. Soon, they began to talk about academic matters.

During their conversation, Lu Zhou heard that Academician Zou was studying ceramic composite materials and bio-composite materials. Academician Zou was a big name in the materials science field. When Lu Zhou heard about bio-composite materials, a light bulb went off in his head.

“Bio-composite materials?” Lu Zhou smiled and asked, “Which field are you in?”

Academician Zou smiled and said, “Me? I’m mainly concerned about hydroxyapatite and titanium.”

Hydroxyapatite and titanium composite materials?

Lu Zhou had a look of interest on his face.

Even though he hadn’t researched this field extensively, he had a certain amount of understanding.

Hydroxyapatite and titanium composite materials were some of the more advanced research directions in the field of materials science. They were generally regarded as the next-generation material for artificial bones. If the research on this technology was successful, it would have a huge impact on industries such as medical care and bionic machinery.

“We are now working with Aurora University to develop a bionic artificial bone that can replace human bones, in which it can be controlled by neural electrical signals. If this technology becomes a success, the problem of mutilation will disappear.”

Lu Zhou: “Controlling them using neural electrical signals? That’s not easy, right?”

Academician Zou nodded and said, “Of course Professor Lu is able to instantly recognize the most important problem. In fact, the biggest problem we are now facing is the acquisition and feedback of neural signals. Especially for the feedback part, it’s not easy to trick the brain by using simulated neural signals.”

“This sounds interesting.”



However, Lu Zhou wasn't thinking of bionic prosthetics; he was thinking about something else.

Academician Zou said with a smile, "It is interesting. If you're interested, you can come to visit our laboratory; I'll give you a tour."

Lu Zhou: "I'll probably go after the moon landing bidding conference is over, thanks in advance."

Academician Zou jokingly said, "You're welcome. If you become interested, you'll probably end up helping us big time."

Whenever someone couldn't solve a problem, the easiest way to solve that problem was to get Professor Lu interested in it.

This saying, which was originally spread within the mathematics world, had now spread to all corners of academia...

...

The beginning of November.

The moon landing project bidding conference was held in a low-key manner at the auditorium of Harbin Institute of Technology.

After presenting the invitation letter and his ID card to the staff at the door, Lu Zhou handed in his electronic devices. He followed the reception staff into the venue and sat down at his seat, which was marked with his name.

In addition to the inspection at the venue entrance, there would also be a second inspection 15 minutes before the conference would begin. Other than checking the identities of the attendees, they would also check if any electronic devices were sneaked through.

After all of the inspections were done, it was ten o'clock in the morning.

After someone from the State Administration for National Defense came to read the confidential agreement, a high-ranking official from the State Administration for National Defense announced the start of the bidding conference.

This bidding conference was different from the other project bidding conferences. The buyer didn't explain their specific requirements for the

project. Instead, it was the bidder who had to demonstrate their own technological capabilities.

Of course, the demonstrations were in the form of PowerPoint presentations. Other than some sensitive data, the contents of the PowerPoint presentations were non-technical.

In fact, the two Chinese aerospace giants were quite strong. Even though they were far from being aerospace leaders of the world, they still presented a lot of dazzling technology.

For example, the China Aerospace Science and Technology Corporation demonstrated a 500-ton liquid oxygen kerosene engine.

Even though the technology was only demonstrated on a PowerPoint presentation, according to the statements made by experts appointed by the Aerospace Corporation, the high-powered turbopump, high-flow gas generator, high-pressure low-temperature valve, and high-precision flow regulator had all been developed. Prototypes had also been produced and were currently in the testing phase.

On the other hand, China Aerospace Science and Industry Corporation also showed its strengths. They demonstrated the latest high-temperature and wear-resistant ceramic coating technology, which solved a key technical problem of liquid oxygen and kerosene dynamic sealing under high-speed and heavy-load conditions. This technology could be applied to the 120-ton liquid oxygen kerosene high-pressure turbopump engine. This can improve the performance and safety of the rocket engine.

Finally, after the technical director from the China Aerospace Science and Industry Corporation completed their demonstration, it was Star Sky Technology's turn.

Lu Zhou walked on stage and began to show the PowerPoint presentation that he prepared a week ago. He showed them the latest ion thruster system developed by Star Sky Technology.

The second he flipped to the second page of the PowerPoint presentation.

The entire auditorium fell silent...

## Chapter 690: Let's Make A Bet

*Ion thruster propulsion system in space?*

*Space?*

*F\*ck, am I reading this correctly?*

Whether it was the experts or the company representatives, they all subconsciously rubbed their eyes. However, no matter how many times they rubbed their eyes, the data on the powerpoint didn't change.

An expert from the China Aerospace Science and Technology Corporation shook his head.

Another private aerospace company representative, who just received funding from Penguin, was baffled.

*We all exaggerate in our PowerPoint presentations, but this...*

*But this is outrageous!*

The silence ended and in came the discussions.

"Unbelievable..."

"This isn't just unbelievable, this is impossible! I've never heard of an ion thruster propulsion system that can reach kN levels of thrust! Even the latest AEPS XR-5 ion propulsion system designed by Lockheed for NASA only doubles the thrust from the Hall-effect thruster."

"..."

The staff members were about to ask the audience to calm down, but Lu Zhou gestured them not to.

He quietly waited for the commotion to die down before speaking in a relaxed tone, "Feel free to ask any questions."

Even though this wasn't a designated Q&A time, technology demonstrations like this didn't allow the audience to ask questions. However, Lu Zhou knew that if he didn't explain himself, no one would believe him.

Soon after, someone raised their hand.

"I have a question."

Lu Zhou nodded toward the old man.

"Please go ahead."

The old man slowly stood up from his seat and stared at the PowerPoint for a while. He looked at Lu Zhou before asking cautiously, "I have never heard of an ion thruster propulsion system that can reach kN magnitudes of thrust. I have to ask, Professor Lu, is this a typo?"

Lu Zhou smiled and said, "I can assure you that this is not a typo. We have proven through reliable experiments that its thrust can indeed reach kN magnitudes. Of course, I have to admit that using the maximum thrust level consumes a large amount of fuel. However, compared to traditional chemical rockets, the fuel weight is still decreased by 90%."

The old man shook his head and sat back down.

Soon, another expert from the China Aerospace Science and Technology Corporation stood up.

"500-1000 MW miniaturized reactor... I haven't heard any rumors about this kind of technology before, so I won't make any comments. But the question is, how do you plan on accelerating the outflows of ionized matter to one-thousandth of the speed of light?"

An RD-170 rocket had a power of 192 MW, and most of this power was used to propel the liquid fuel carried by the rocket itself. If the total power of the ion thruster propulsion system could reach the power of 1000 MW, theoretically, it was possible to send a 50-ton load to low-Earth orbit.

However...

Power alone wasn't enough.

Applying this power into the working medium was the key.

Lu Zhou knew someone would ask this, so he smiled and changed the page on his PowerPoint presentation.

“I was about to say this next.”

The PowerPoint switched to the next slide.

A cylindrical object appeared in front of everyone’s eyes.

Even though they couldn’t see the internal structure, the text nearby listed its experimental parameters in detail.

However, after seeing these parameters, the now-calm attendees once again fell into a wave of intense and heated discussions.

“Hall-effect thruster unit? What the hell is this?”

“I don’t see anything special about the design of this Hall-effect thruster unit. If it’s so amazing, why not just make a bigger one? Instead of integrating countless so-called propulsion units in the same engine?”

“This is impossible! It’s ridiculous!”

Director Li saw that the situation was going out of control. He was about to speak, but an old man sitting in the front row of the auditorium stood up.

“Let me say something.”

The commotion in the auditorium gradually subsided.

The person who stood up was Chief Engineer Yuan Huanmin from the China Aerospace Science and Technology Corporation. He was head of the latest large-thrust rocket project. After seeing the old gentleman stand up, a lot of people stopped talking out of respect.

Lu Zhou looked at the old man while the old man looked back at him.

“I understand that Professor Lu, as an expert in the field of controllable fusion, has a soft spot for the technical route of ion thrusters. I acknowledge that controllable fusion has changed our lives and that ion propulsion technology has a lot of potentials.”

Whispers were heard in the auditorium.

A lot of people were confused.

*This doesn't sound right...*

*How come this big name in the field of chemical rockets is agreeing with Lu Zhou?*

However, Lu Zhou didn't relax at all.

Because unlike the other attendees, he could clearly see the old man's face.

And the old man's eyes were filled with doubt and suspicion.

As expected, after a pause, the old man continued, "Maybe someday in the future, your proposed ion thruster system will change the aerospace industry. But I don't think that time is now."

Lu Zhou: "Oh, really? Why?"

The old gentleman smiled and said, "The development of any technology is a gradual and slow process. New technology cannot be developed in a day or two. It's just like quantum computers, which obviously already exists, but we are still putting energy into improving traditional computers. Not because quantum computers are not good, but because they are not good enough... Do you know what I mean?"

Before Lu Zhou could speak, the old man continued, "It is clearly too early to adopt ion thruster propulsion technology. We should focus our limited resources on chemical rockets and complete the first step of the manned moon landing before trying to develop any unknown technology. If we implement the ion thruster propulsion you proposed, we will have to bear all the risks that new technology brings. Can you guarantee that your ion thruster propulsion system is reliable? Can we afford an accident? Can our country afford to have an accident?"

A lot of people agreed with the old man's words.

Even though Lu Zhou was the chief consultant for the moon landing project, he didn't have any real authority. Also, his specialty was controllable fusion, not aerospace engineering. A lot of people viewed him as an outsider.

And when it came to the field of chemically powered rockets...

Obviously, this old gentleman was more authoritative.

And Lu Zhou was well aware of this.

It was normal that he wasn't the crowd favorite.

After all, for people who had researched chemical rockets their entire life, not only was this unbelievable, this was hard to accept.

In fact, when the structure diagram of the Hall-effect thruster propulsion unit was recovered from Debris No.3, Lu Zhou was full of doubts about whether or not this thing could really push a space shuttle to low-Earth orbit. After all, according to NASA's information, their strongest ion propulsion system could only lift an egg.

However, after completing the assembly and testing of the Hall-effect thruster unit, all of his doubts had disappeared.

People were in disbelief, only because that was their first intuition.

However, the development of science and technology wasn't based on intuition. It was based on facts.

Lu Zhou knew that after these people witnessed what he had witnessed already, they would be equally as shocked.

So that Lu Zhou wouldn't have to explain anything himself, he had to show them.

Lu Zhou shrugged and said with a poker face, "So, I just have to prove that this ion thruster propulsion system can send a 50-ton load to low-Earth orbit, right?"

Academician Yuan said with a smile, "I'll eat a vacuum flask if you can do it."

"There's no need for that." Lu Zhou smiled and sighed. He then said, "People have said that to me before, yet no one has ever fulfilled their promise."

Director Li, who was in charge of the meeting, coughed and tried to diffuse the situation.

"Everyone, let's just have a friendly discussion... This is a public tender conference, and we're here to see everyone's technical routes and materials.

And us, as the State Administration for National Defense, will also look into various aerospace agencies and look at all sides of the story.”

Director Li was in a hard spot.

Even though the ion thruster propulsion system was good, he was more inclined to choose the chemical rockets from the China Aerospace Science and Technology Corporation.

It wasn't because of his bias against new technologies. It was merely for practical reasons.

After all, China Aerospace Corporation had always had ties with National Defense. The reason why countries were willing to spend money on rockets was due to the development of rocket technology, which not only enhanced their aerospace capabilities but also strengthens the country's military strike capabilities.

No matter how strong the ion thruster propulsion system was, due to the working medium limit, the thrust wasn't as strong as chemical rockets. Even though ion thrusters had long-distance advances, that wasn't applicable to ballistic missiles.

Besides, they couldn't just throw controllable fusion machines on missiles.

Miniaturization of controllable fusion technology was important, but was ion thruster propulsion systems equally as important?

Maybe it would be in the future, but not now, not yet...

Lu Zhou saw Director Li's face and knew that the State Administration for National Defense was probably unwilling to invest in ion thruster propulsion technology and that Director Li just didn't want to embarrass Lu Zhou by saying this out loud.

Actually, Lu Zhou wasn't very concerned about whether or not other people were optimistic about his research, but he did care about money...

*This research is going to cost billions of dollars...*

Even if Lu Zhou cashed out all of his East Asia Energy shares, he couldn't afford this on his own.



*What should I do?*

Lu Zhou thought for a bit. He suddenly looked up and smiled at Academician Yuan.

“Ok then.

“Since you’re so sure that I can’t do it, let’s make a bet.”

Chapter 691: Competitor

The bidding conference was finished.

After Lu Zhou’s presentation, many other research institutes and aerospace companies demonstrated their technology in the form of a powerpoint. Even though there were some designs that were even more ridiculous than Lu Zhou’s presentation, no one had any desire to complain.

Just like this, the bidding conference came to an end.

After the conference ended, Lu Zhou went into his hotel room and took a shower. Then, he made phone calls to all the business cards he was given a while ago. Finally, he called Chen Yushan and told her about the bet he made at the conference.

Strictly speaking, this wasn’t an official bet with Academician Yuan. After all, it was meaningless to make a bet with a chief engineer. Even if he won, it wasn’t like he could take over China Aerospace Science and Technology Corporation.

Instead, this was just an oral agreement that had a gambling nature.

Which was, for the bidding scheme of the 50-ton low-Earth orbit delivery, the “finished product” would be used instead of the bidding documents. Or in other words, the first person who proved that they had the ability to put a 50-ton load into low-Earth orbit could win the project bidding, provided their price was reasonable.

This funding would probably be around 9-12 billion yuan.

Even though this was only an oral agreement, it was acknowledged by the leadership teams from the State Administration for National Defense and the China Aerospace Science and Industry Corporation, and it was written into the conference transcript. In some sense, it was enforceable.

After all, aside from the bet being made in front of so many colleagues, if Star Sky Technology could really produce an advanced ion thruster propulsion like the one shown on their PowerPoint presentation, there was no reason for the State Administration for National Defense not to choose Star Sky Technology.

No matter which bidder would win this competition, the buyer would always win.

Of course, it wasn't easy for Star Sky Technology to face off against such a giant aerospace company. Because the 500-ton liquid oxygen kerosene engine had been basically developed, if they worked hard enough, they might be able to build the Long March 9 in advance.

Regardless, Lu Zhou still had a chance to win.

Now that the miniaturized controllable fusion technology and Hall-effect thruster propulsion units had been completed, the design of the space shuttle had entered its final stage. As long as Lu Zhou had enough funding, he was certain that Xiao Ai and his assembly center could live up to his expectations.

However...

After he told Chen Yushan what had happened, he started to get criticized by her.

"Why didn't you tell me this in advance?"

Lu Zhou sighed and said, "I couldn't make a call at the conference venue since they confiscated my phone. There was no way I could contact you."

Chen Yushan sat in her office chair and said, "Your decision is too hasty... Do you know what this means for us?"

Even though Star Sky Technology's research and development prospects seemed pretty good, they were inferior when compared to the giant that was the China Aerospace Science and Technology Corporation. Especially when it came to the aerospace field, they simply weren't in the same weight class.

Forget about the technical reserves and industrial production capabilities, in terms of launch experience alone, China Aerospace Science and Technology Corporation had a huge advantage over Star Sky Technology.

Otherwise, why would other companies give up so quickly? Instead, other companies placed their focus on other smaller bids, such as the lunar module, the astronaut life-support equipment, etc.

In terms of low-Earth orbit delivery capabilities, there wasn't a single company that had the confidence to defeat the "500-ton-class liquid oxygen kerosene engine", let alone the confidence to defeat the "Long March 9".

This was the power of China Aerospace Science and Technology Corporation!

Lu Zhou's finger gently tapped on his armrest. He finished listening to Chen Yushan's complaints before saying, "But this is the best way, if this were a normal bid, unless we heavily reduced the price, it would be difficult to beat them."

Actually, it wasn't just difficult, it was near-impossible.

Most of the experts and scholars in the aerospace industry didn't believe Lu Zhou could do it.

Most importantly, the State Administration for National Defense was obviously not as interested in the ion thruster propulsion system as they were in the miniaturized controllable fusion devices...

Chen Yushan sighed and couldn't help but say, "The best way is to abandon this bid. If you want to build a space shuttle... we can slowly accumulate experience from smaller launch missions. After that, we can think about participating in large projects like this."

From the perspective of a CEO, this was the most appropriate approach.

There was no reason to pursue a project with risks that outweighed its benefits.

As a matter of fact, being able to create the miniaturized controllable fusion reactor was amazing enough.

After the Navy Equipment Research Institute finished improving the small controllable fusion reactors, many military companies would pay to get this technology in their hands. Even though their income from the national defense patents was limited, they could easily earn back their research cost.

Also, there was something else that Chen Yushan was worried about.

After hearing Lu Zhou's explanation, she sighed and said, "What kind of bank will grant an 8 billion yuan loan for a project like this! Unless you want to sell your East Asia Energy shares, there is no way we have that kind of money."

"Uh... I actually already solved the money part, you don't have to worry about it."

"I'm telling you, without money... Wait, what?" Chen Yushan paused for two seconds before gasping in disbelief. "You solved it?"

"Yeah." Lu Zhou nodded and said, "Alibaba is willing to contribute part of it... in the form of an investment."

Accepting this investment meant that after the project was completed, Alibaba would recover their investment and also take a certain percentage of the funds given by the State Administration for National Defense. However, Lu Zhou wasn't very concerned with the profits.

After all, there were plenty of space activities to be done in the future, and the moon landing was only a tiny portion.

The phone went silent for a few seconds.

After a while, Chen Yushan murmured, "Are they crazy..."

"Maybe," Lu Zhou shrugged and jokingly said, "but I think they're quite confident that we can win this bet, so I think you should be more confident as well."

Actually, even if Star Sky Technology lost this bet, they wouldn't lose too much.

After all, in the early days of the aerospace industry, the state announced policies in regard to aerospace investment funding. Funds invested in aerospace projects were able to enjoy tax deductions.

Since Lu Zhou didn't want to change his mind, Chen Yushan didn't try to convince him. She sighed and said, "Okay then, I won't convince you otherwise. Just... I will help you cut down costs as much as possible... without affecting the quality and progress of the project."

Lu Zhou smiled and nodded.

"Okay, thanks."