

## D. School 131

### Chapter 131 - result

Hua Guo has respected readers since ancient times, and academicians are now the top-level existence among readers. They are taken care of by various special policies and are equivalent to deputy ministerial levels in level.

Although it can't be compared with deputy ministerial real power cadres, but when it comes to inserting a team to use supercomputers, why wouldn't academician Qiao not give face when he was out of the team? Enough time.

"You two are here to guard me, and as soon as you come out, call me as soon as possible!" Academician Qiao told Dong Jianye and Wang Jiayu, "Even if you call me at half past two in the middle of the night!"

"You can't make you sleep well, right? If the result comes out in the middle of the night, will we call you at six in the morning?" Wang Jiayu took into consideration Academician Qiao's physical condition and couldn't bear to disturb him at midnight.

"Speaking as if the result is not coming out, I can sleep well!" Academician Qiao whispered again, stressing again, "No matter what time it is, call as soon as there is a result!"

"Yes!" The two looked at each other, but reluctantly agreed to come down. They both ate the bowl of scientific research. Who still doesn't know the pain of waiting for the calculation results.

"Are you saying that we can see the final result tonight?" After Academician Qiao left, the staff of the computer center poured them a glass of water and went on their own, Wang Jiayu couldn't help asking.

"How could it be possible to see the final result so quickly?" Dong Jianye shook his head and smiled. "Tonight's test is only a trivial point. If you want to deduce the final result, you will have decades of luck!"

"Hey!" Wang Jiayu couldn't help but slap, "This thing that Academician Qiao got? Is it completely different from his previous research field?"

“Who else? What is the biggest thing in mathematics this year?” Dong Jianye still looked at the formula obsessively without blinking his eyes. “I’ve seen his paper, it’s like a classical Chinese painting, with only a few strokes, The characters and expressions on the paper are really beautiful! After reading it, you can really read the other papers and you will taste the same! “

“When I saw the resumes of Tao Zhexuan, Elji and other great gods before, I kneeled directly! Now I compare with Lu Qiujian, but these two people can’t match it!” Wang Jiayu also said with emotion, “We are afraid I can’t do anything comparable to them in my life! “

“It’s not difficult to say that, although Lu Qiujian’s achievements are remarkable, he has also published many articles in other fields recently; but the breadth of the research is still a bit different from the two people’s comparison!” Dong Jianye expressed different opinions.

“How many years did they do? Give Lu Qiujian the same amount of time and be sure to overwhelm them!” The two quickly fell into a dispute until the staff informed them that they could use the computer before stopping!

Academician Qiao returned home early today, but he could n’t sleep anymore. He turned over and over in bed for a while. He wore a coat and went to the living room to turn on the TV. From the drawer, he pulled out several old movies from the red Lucia period. Fan found a copy and stuffed it into the DVD player.

This was the habit he had formed while studying abroad in Lucia. The perseverance and optimism expressed in the movie always fascinated him.

Even when watching old movies that he likes, Academician Qiao’s eyes are occasionally swept to the mobile phone next to him. Occasionally, he has to pick it up and check to see if the battery is still charged.

After watching Takovsky’s classic film “Andre Rublev”, it was already two o’clock in the middle of the night, and academician Qiao was still not sleepy; it should be almost the same over time, so why not call? He got up and walked to the balcony, picked up his mobile phone and wanted to call Dong Jianye, but thought about it and received it back, what if he was disturbed if he was calculating?

Do you want to stop watching a movie? Now I can’t sleep even if I go to sleep! Academician Qiao was very hard to find a Sergey-Bundalchuk’s “War and Peace” from the drawer, I would not believe it! After 427 minutes of watching the movie, I still don’t call!

Liu When Natasha, played by the beautiful Demira Saverieva, appeared on the screen, Academician Joe's mouth showed a slight shy smile, which was the object of his first love! Since seeing this figure for the first time on the big screen, he has remembered her deeply!

Jingle Bell! When he was in memory, his phone rang suddenly; if he heard the phone ringing at this time, he would immediately hang up and then shut down, but now he grabbed the phone, "Hey? How is it?"

"The calculation has been completed successfully!" Dong Jianye on the other side of the phone was also suppressing joy. "Although there are too many things to be sure! But this window is finally open!"

"Good!" Academician Qiao praised, holding the phone in his neck and quickly fetching his clothes. "You are waiting there, I will pass immediately!"

"What time is it! You are still ..." It was already hung up before I finished talking!

Soon after Academician Qiao's car was parked outside the machine room. Dong Jianye and Wang Jiayu, who had been waiting at the door, hurriedly greeted him and handed what they had to Academician Qiao, "This is the result!"

"Bring me to see!" If I couldn't get in, Academician Qiao stood at the door and turned and looked.

The staff of the computer center who came out to greet looked at Academician Qiao's obsession, and couldn't help but ask, "What kind of calculation was done this time? Why is Academician Qiao so excited?"

"Actually, this calculation doesn't make any sense!" Dong Jianye smiled sternly, before he asked him to explain again, "but he verified that a certain mathematical research direction is feasible-at least it seems feasible now! The meaning inside is great! "

"Of course this is for those of us who study mathematics, not necessarily for you!" Dong Jianye looked at the questioning staff?

"Why? It's good for us if you use our computer to make achievements?" The other party didn't understand.

Dong Jianye's eyes turned to pity, "The direction indicated by today's calculations is about quantum algorithms. If our mathematics department sorts this thing out, quantum computers will soon make breakthrough progress! Quantum computers are relatively traditional computers I believe you have a better advantage than me! "

"Now you have the strong support of the country, huge grants, policy convenience, etc., but if the quantum computer comes out! Will you still have the current scenery? I am afraid that you will have to reconsider the problem of finding a job by then ! So it's good for us, not necessarily for you! "

Chapter 132 - The report will approach

"Well, Xiao Dong, put things in my bag, don't joke!" The wrinkles on Academician Qiao's face were almost squeezed into a ball, and turned to comfort the staff of the computer center, "Don't listen to him Yes, this is just a small step, and it's still very early to apply. At least until you retire, we still have to rely on you guys! "

Thanks to the staff at the computer center, Dong Jianye could n't help but look worried about his tutor's spirit, "Teacher, let's take you home for a break! You are so old, you must pay attention to your body!"

"With this thing, I am also relieved! You two should also go to bed early! If the dormitory is closed, go to a hotel, and tomorrow I will bring the ticket to you for reimbursement!" Academician Qiao gave them a piece of joy. And then back home.

After lying in bed for a while, Academician Qiao slowly slept until he fell asleep, and there was still a smile on his mouth.

Although he slept late, Academician Qiao's biological clock awakened him at 7 o'clock the next morning; he got up and washed up, went to the breakfast shop downstairs and ate some coke rings, soy juice pads, and no matter who else Did you wake up, directly dialed the phone of Academician Gu and others, "Hey, old Gu, hurry to the office building of the Department of Mathematics ... don't care what meetings are not meeting, I have already got results here ... Yes, yes, good news ... you will know when you come ... I will hang up first, you come quickly, I will fight Lao Yang, Lao Guo and Xiao Zhang phone!"

The phone said things quickly, and the other party immediately threw away the things in his hand and rushed to the office building of the Department of Mathematics; in a few moments, Academician Yang, Academician Gu, Academician Guo and he all went to Professor Zhang's office

and waved Assistant Liu, who came in to pour tea, waved aside and took out the result of yesterday's supercomputer check from the bag. "You made it yesterday, let's see it!"

"As you expected?" Academician Gu said as he took the document.

"Yeah, Xiao Lu's manuscript did point us in a direction." Academician Qiao said with emotion, "If you use the traditional method, I don't know how much time and energy to waste!"

Became quiet in the office, leaving only the rustling sound of academician Gu flipping through the document. After reading it, he handed the document to Academician Yang on the side. He closed his eyes and leaned back on the sofa, then slowly pondered.

Gradually, everyone in the office finished reading, Academician Gu reopened his eyes and looked around, "Everybody talk about it, what should I do?"

"Just one point is correct, does not mean that the content of the speech is not wrong, are we more careful? Check more times?" Academician Guo is old-fashioned.

"It's too late now! Professor Qiu told me that all the plane tickets over there have been booked! It will be too late if you don't decide!" Academician Qiao retorted. "As I mean, we might as well give Xiao Lu a chance, Let him go up and talk! If you talk about it well, you can take it a step further. If you talk about it, it can be a lesson for him. Young people who suffer from setbacks are more conducive to growth! "

"This is a rare opportunity for our Beijing Normal University and even the entire Chinese mathematics community. Isn't it appropriate to have a basket in the end?" Academician Yang was also hesitant.

"Forget it, give him this opportunity!" Academician Gu stood on Academician Qiao's side. "Several of our old bones can still shield him from the wind and rain, and even if there is a problem in the manuscript, it is not. You can figure it out after listening to it! As long as Xiao Lv will not be refuted on the spot, nothing will happen in the future! "

"We can throw out the results of this time after Xiao Lu has finished speaking. There are examples here, and those listeners must be more careful!" Academician Qiao added.

“Since you insist, we don’t have any opinions; but this is not the only one of us can decide?” Academician Yang no longer objected, “What do the principals say?”

“We will go together, and the principal will still give us this face!” Academician Gu stood up, and since this report will be based on the mathematics department, several of their face principals still have to give it.

“Well, I’ll make a phone call to ask if the principal is out of the office. If we are, let’s go together!” Professor Zhang picked up the phone and said a few words and hung up the phone. “The principal is now out to check the venue. Have you said this? By the way, let ’s see how the venue is set up?” A group of mermaids came out.

Just when they were too busy to report, Lu Qiujian, who was the protagonist of the report, was listening in the classroom; it happened that this class was low-dimensional topology, and Poincaré guessed that An important content of a discipline.

This makes today’s teacher very depressed. Although he was born in a famous university in China, he went to a famous foreign university to study for a doctorate after graduation. Finally, he was invited back to Beijing Normal University with kindness, and he also has quite a profound knowledge in low-dimensional topology. , That is a problem at all.

Who made him meet Lu Qiujian? Compared to the study of low-dimensional topologies, apart from Thurston, Witten, Friedman and other few people in the world, who dares to say that he is better than him?

This is like a football school coach who suddenly finds Messi attending his class. How can it not be nervous? So the teacher’s speech became slower when he was giving lectures, he would glance at Lu Qiujian’s side if he didn’t say a few words, for fear that he would find something wrong.

Hey, I knew that I would n’t be here anymore, I felt the teacher ’s awkward mood, Lv Qiujian sighed; I was wondering what excuse to leave, and the phone in pocket vibrated.

Take a look. It turned out to be Professor Zhang. He quickly shook his head under the table and said a few words, and then raised his hand to ask the teacher for leave. “Teacher, Professor Zhang asked me to go over and say that the principal asked me!”

“Oh, then you go quickly!” The teacher was relieved suddenly, you can’t talk about this lesson without you! No, I have to talk to the department, so that he will not be used to listen to my class, and I will not have to take the exam!

According to Professor Zhang’s phone call, Lv Qiujian quickly came to the venue of the report meeting. The hardware decoration was completed in the venue. The workers were doing the final soft-fitting work. The principal and Professor Zhang were facing the venue. Layout pointing.

After saying hello, the principal looked at Lu Qiujian with a complex expression, “Xiao Lu, academician Gu told you everything about me! Originally, according to my opinion, we are still more cautious, but academician Gu repeatedly promises you No problem here! Now that the closing speech is up to you! Do n’t go wrong! “

### Chapter 133 - Speech language

“Thank you for your kind love with the professors! I will not live up to your expectations!” Lv Qiujian respectfully bowed the principal and these academicians and professors and handed over such important work to a 20-year-old student , They also took a certain risk.

“This is also what you made first, then Beijing Normal University can only have such an opportunity!” The principal waved his hand, “Just when you came, let’s take a look around with us, and find out any problems in time, so as not to make mistakes!”

“Yeah, I was just in class, there is a section for low-dimensional topology in the morning!” Lu Qiujian said a little embarrassedly.

“Haha! Do you still need to take this course? Forget it, if you are present, it is estimated that Xiaoning’s lecture will be unfavorable!” Professor Zhang and the academicians laughed, and he persuaded, “According to my meaning You do n’t have to go to this class, so as not to put pressure on Teacher Ning! You do n’t have to go to class every day in the last half month, try to do the preparation work for the report meeting! As for the substitute teacher, I ’ll tell!

“Well! Then I will just go to the exam!” Lv Qiujian also saved time.

“You can go for the exam if you are happy, even if you are not happy!” Just kidding, can anyone who can decipher Poincaré’s conjecture still hang on low-dimensional topology?

“The audio and lighting are re-purchased! The wall coatings are also re-painted, absolutely non-polluting materials! The projector and curtain are also selected to be the best ...” The school leaders

reported to the principal. The principal nodded and asked a few words. Professor Zhang and academicians also occasionally added two sentences.

Checked a circle, pointed out a few small problems, it was just time for lunch; the principal recently pushed all the work that can be pushed, and prepared the report meeting with all his strength. Continue to check the details.

“Principal, which leader do we intend to invite this time to attend the meeting?” Professor Zhang asked. This is also the practice of China. The higher the level of leadership invited to the meeting, the more successful the meeting.

Of course, this is also a good opportunity to demonstrate the outstanding achievements of Beijing Normal University on the road to building a world-class university. The president will certainly not miss it. He will make a good impression in front of the leadership to gain convenience in the future for the school. See no The headmasters of outsiders are no longer kept secret, “Last year, the elders came to the scene at the World Mathematicians Conference. We will definitely not be able to invite you this year! However, the Deputy Prime Minister in charge of science, education, culture and health has agreed to participate, and elders in this field may also participate ; Of course, we have to wait for the specific time! “

The president is glowing at the moment. As long as the meeting is successfully held, hundreds of millions of dollars can be returned in the end of the year for funding. More importantly, the reputation of Jingshi University in the world of mathematics can be greatly improved!

This is also good for Lv Qiujian. To complete your plan, you will inevitably contact the high-level in the future. You will need to register a number with them first. It will be more convenient for you to have a good impression in the future.

At this time, the food and wine also came up, and the principal picked up the wine glass.

After drinking, Lu Qiujian said modestly, “I was also lucky to find a way to crack it! There are many people in history who are younger than me when they make great achievements!”

“Excessive humility is pride! You are screaming late now, what are those of us?” Professor Zhang felt sorry for a while, but he could only stay in the Department of Mathematics of Beijing Normal University for less than a year.

Smiled for a while, and then said that the business was on the top. Professor Zhang asked, “Principal, have simultaneous interpretation been found? There are too many professional terms involved in this meeting, and they have to find something to prepare!”

Simultaneous interpretation refers to a translation method in which the interpreter continuously interprets the content to the audience without interrupting the speaker’s speech; since the Nuremberg international trial, this method has been adopted by most international high-end conferences.

Of course, this kind of work has very high requirements on people. First of all, it requires translators to have super listening skills. Not only can they understand the standard pronunciation of the language, but sometimes they have to understand the pronunciation of dialects and slang, such as when translating Japanese The Kanto accent is different from the Kansai accent, and the northern, southern, and central accents in English are also very different. You cannot expect speakers to have a fluent standard accent, so they can only enhance their accumulation.

At the same time, we must prepare in advance for the professional terms involved in the meeting. Some words are a usage in daily life, and another usage in a specific occasion, such as hat-trick, if you put Messi in In the match against Real Madrid, a hat trick was staged and it was translated into Messi playing with the hat-Madrid is getting bigger.

“This time I ’m looking for people who have participated in the International Mathematics Conference last year. There are two to three people in major languages such as English to Chinese, English to Japanese, English to French, English to Russian, English to German, and English to West. Come here Probably will arrive at the school tomorrow, and we will meet them together at that time! “The principal said his own arrangements, and others nodded, so many languages are almost enough!

Only Lu Qiu Jian frowned slightly, “Principal, but I plan to speak in Chinese!” From the configuration that the principal just said, I prepared Lu Qiu Jian in English.

“Huh? Hear Professor Zhang said that your English is good, there is no problem with the speech at all?” The principal was a little surprised.

I ’m not only good in English, I do n’t have any problems in the languages I just said, “I think so, since it is at our report in China, is it not normal for the speakers to use the language of China?” Lu Qiu Jian ’s national self-esteem has been violated. Since Chinese is also one of the universal languages of the United Nations, why should I use someone else ’s language?

“But this is basically the convention of academic conferences!” The principal is also a little embarrassed. Now the frontier of science is still in the hands of Europe and the United States, so they have to obey the habits of each other.

“But this time it was a lecture at Beijing Normal University!” Lu Qiujian emphasized, and then his words were eased. “Besides, it is not a difficult thing, but it is nothing more than a few simultaneous interpretations. Those simultaneous interpretations must all understand. Chinese? Do a little preparation for professional vocabulary! “

The headmaster carefully considered it, and it seemed that Lu Qiujian said something reasonable. After consulting with them, he finally agreed, “So when they arrive, you can go to help at any time! Except for chaps! “

#### Chapter 134 - Masters gathered

This is just a small episode in the preparation work. Lu Qiujian is preparing a speech, publishing a paper on the website, browsing the latest articles about Poincaré’s conjecture, and learning about cutting-edge physics. Simultaneous interpreters prepare the translation work together.

With the passage of time, the preparation of the conference venue was completed, the translation of the speech was verified, the training of the conference volunteers was successfully completed, and the list of invited leaders was finalized; and the most important one was invited to participate in this conference. Mathematicians have started their own itineraries, from New York, from Los Angeles, from London, from Humboldt, from Moscow, from Tokyo, from Paris, from the pearl ... from the world-renowned universities and research institutes The gate came out, ran to the nearest airport, and flew to the capital of China!

Logistics staff and volunteers of Beijing Normal University also took action to prepare for the arrival of these mathematicians at the airport, at the railway station, and at the entrance of the school.

The mathematics department simply stopped for a week, and the students were summoned to various points to coordinate with the school’s work; Lu Qiujian’s roommates Xu Ye and Li Yincheng were sent to the hotel door to do reception work.

“People are comfortably drinking tea in the hotel while blowing the air conditioner! Let’s stay under the big sun and prepare for the reception! It’s so hard!” Xu Ye looked enviously at the hotel, the school for better Communicating with these mathematicians, arranged Lu Qiujian here.

“Who makes people make achievements! Besides, it is not good for us to stay here. It is also convenient to apply for studying abroad in case it is time to catch up with the master!” Li Yincheng

looked farther, “If it will be for a while Just meet Professor Attia in Cambridge! Just chat with him and ask for an email or something! Maybe I was taken to the UK by him! “

“Still you understand it! I said how can I get a job with these people, either for seniors or for Yansan, it turned out that the school had plans already!” Xu Ye suddenly realized that this was the case. An opportunity given by the school, “Then I’m going to say hello to Professor Jean-Pierre-Salle of the French Academy!”

“Who are you talking about?” The girl borrowed from the School of Foreign Languages asked curiously, there is no way. There are too few girls in the Mathematics Department. There were no two pretty girls at the reception, which were really unreasonable, so I had to borrow them from the foreign language department with many beautiful women.

“Xiaoyue, what we just said is the authority of a mathematician!” Xu Ye quickly began to answer her question, “Michael Francis Attia is the dean of Trinity College Cambridge.”, Has made outstanding contributions in the field of topological k theory, Li Qun’s theory and algebraic geometry related to the gauge field, and won the Fields Medal in 66. Jean-Pierre-Sale is a professor at the French Academy, mainly The areas of contribution are topology, algebraic geometry, and number theory. The 54-year Fields Medal winner! Oh, yes. The Fields Medal is the highest award in our mathematics community. The status of the medical community is average! “

“Oh ~ I seem to understand a little bit! They are all top figures in the industry!” The girl called Xiaoyue asked again, “Then they came to Beijing Normal University to attend this Lu Qiu Jian report?”

“Yeah! Qiu Jian cracked the Poincaré conjecture in the seven major math problems, so these people are coming!” Xu Ye’s tone showed endless envy, if the result is how good he is!

“I heard that he was only twenty this year? Basketball is still awesome! Almost went to nba?” The little girl asked a series of questions, both eyes are full of stars! Xu Ye was very distressed.

Fortunately, his depression did not last long, Li Yincheng quickly patted his shoulder, “Stand up, just call the car and it will be ready soon!”

Xu Ye quickly turned around to stand. Whispered, “I don’t know who came this time?”

Kung Fu, Professor Zhang and others also came down and waited at the door for five minutes. The car stopped at the door of the hotel, and a man in his fifties walked out of the car. Professor Zhang and Lv Qiujian quickly greeted them, “Professor Friedman. Hello, welcome to China!”

In their greetings, Xu Ye and Li Yincheng hurried up to help Friedman take down their luggage. They followed them to the hotel.

“Wow, that’s Lu Qiujian! I’m afraid that it’s more than one meter and eighty-five!” Xiaoyue returned to the door and asked, “Who was that guy just now?”

“Michele Friedman, an academician of the American Academy of Sciences and a professor at the University of California, winner of 86 years.” This time Xu also directly omitted the name of the Fields Medal.

Then they welcomed Qiu Chengtong from the Pearl Chinese University, neon mathematician Ito Kiyoshi from the University of Minnesota, Chito Sato of the neon Kyoto University, Arnold of the University of Paris, Harry Fusternberg of the Hebrew University of Jerusalem, Juergen Moser of the Federal High School of Zurich ... The value of this great mathematician dazzled their eyes, and even excited Xiao Yue who didn’t know much about mathematics.

At five o’clock in the afternoon, the most exciting moment finally arrived; a bus stopped slowly at the door and the door opened nearly sixty years old, Pierre-Le Neil de Ligne respectfully helped an old man who was older than him slowly stepped out of the car.

“Gosh! He ... how come he came too!” Xu Ye and Li Yincheng suddenly glared their eyes, trembling with excitement, almost unable to themselves, and quickly went up to help them to take their luggage upstairs.

“Is this person amazing? Why didn’t you see you so excited just now?” In her opinion, the man just seemed to have nothing special except for being older.

“That’s Grothendieck! I didn’t expect him to come out even after retiring for so long!” Even though Xu Ye hadn’t fully recovered, he said excitedly while waving his arms, “So tell you, throughout the history of mathematics, The ancient Greek mathematicians Euclide, Archimedes and Diophant were the most influential; Descartes and Fermat in the first half of the 17th century, Newton and Leibniz tied in the second half, from history From the perspective of development, Leibniz has a greater influence on mathematics, but Newton has a greater influence on physics; Euler in the first half of the 18th century, Gaussian from the end of the 18th century to the first half of the 19th

century, Riemann and Poincaré in the second half of the 19th century Tied for! By the first half of the 20th century, it belonged to Hilbert, and the latter half was the Alexander Grothendieck! “

#### Chapter 135 - Pope Grothendieck

A true \*\*\*\*\* in algebraic geometry, when you open any textbook or monograph on modern algebraic geometry, you will often see nouns such as -, -, and so on. His theory has fed nearly half of the mathematicians in the world today. -Grothendieck's evaluation, mathematicians looked at this maverick man with the Christian view of the Pope's sunshine.

Born in Berlin in 1928, he fled to Paris with his father after the Nazis came to power; when he started reading, in his math class, he could distinguish what is deep, what is superficial, and what is not in his math class Is right and what is wrong. He found that the math problems in the textbooks were always repetitive, and they were often isolated from those things that could give it meaning, “This is the problem of this book, not my problem”-maybe he also said this sentence The second year of middle school, but unlike the second two, the second world cannot change the wrong world, but Grothendieck can change the mathematics.

While studying at the University of Montpellier, he rediscovered the concepts of measurement theory and Lebesgue integral; after graduation, under the guidance of his teacher Shura, he returned to Paris to find an important figure of the Bourbonky school Henry-Jia When, there he met first-class mathematicians such as Claude Chavalle, Jean-Derza, Jean-Diudone, Roger Goodman, Laurent Schwartz and Andre Weil , And joined the Bulbaki school, and pushed the Bulbaki school to its peak.

Michael Adin of the Massachusetts Institute of Technology said that in the late 1950s and 1960s, “the mathematics world needed to adapt to him”, the declaration of the middle and second period became a reality; someone visited his institute but did not see a book , Grothendieck said, “We don't read books, we write books ourselves,” and he finally got rid of the wrong math book.

50s and 60s. Grothendieck revolutionized algebraic geometry thoroughly, published more than a dozen great books, and established a grand and complete set of “probability theory”. His work can be called the pinnacle of algebraic geometry, and his work is known as the “Grotendick Bible”. His theory is of value. On the basis of the probabilistic theory, mathematicians have achieved one after another eye-catching achievement: he gave the first algebraic proof of the famous Riemann-Loch theorem.

It caused the following events:

In 1973, Deligne proved Weiy's conjecture (winning the 1978 Fields Prize);

In 1983, proved the Mordell conjecture (winning the 1986 Fields Prize);

In 1995, Wiles proved the Taniyama-Shimura conjecture, and then solved the Fermat's theorem with a history of more than 350 years (won the 1996 Fields Special Award).

These achievements represent the highest level of contemporary mathematics, enough to last forever. Many geniuses and Fields Prizes emerged in the algebraic geometry of the 20th century, but there is only one God, Grothendieck.

Grothendieck was also a radical ecologist and environmentalist because of his father's death in the Nazi concentration camp during World War II and his mother's depression after his death; for this reason he rejected the Fields Prize and the Crawford Prize. . And he resigned from the French Institute of Advanced Studies for part of the funding from the Ministry of Defense; he took the microphone of Lucia mathematician Pontryagin at the International Conference of Mathematicians because his report covered the issue of missile tracking aircraft .

Left Paris in 73 and moved to the countryside. In 1990, he left all the manuscripts completely away from the mathematics world and lived in seclusion. Unexpectedly, even this time he was shocked, and Lu Qiuqian was very surprised.

With Grothendieck's identity and status, a Poincaré conjecture seems to be insufficient to attract his arrival; he is more excited than Lu Qiuqian as a teacher and early mathematician of Beijing Normal University!

The mathematicians who learned that Grothendieck arrived had rushed to the hall for pilgrimage. Yes, in their hearts, Grothendieck was the incarnation of the \*\*\*\* of mathematics on the ground.

The headmaster was so excited that he couldn't help himself. What a great glory Grothendieck chose to return to the mountain after a lapse of more than ten years!

Although he is more than 70 years old, Grothendieck's thinking is still keen, and he can quickly answer the questions raised by these mathematicians. It was just a few tires after answering a few questions.

Don't dare to disturb everyone, quickly leave! "Lv, teacher, please stay here!" Just as Lv Qiuqian was about to leave, Deligne kept his voice.

“Okay. Sir!” Lu Qiu Jian gently closed the door and walked back, standing respectfully in front of Grothendieck.

“What do you think of mathematics?” Grothendieck looked at him for a while before slowly asking.

For this question, different people will have different answers. Hardy would say, “Mathematics is beauty, and beauty is the primary touchstone: ugly mathematics cannot last forever.”

Engels’ answer is more orthodox, “Mathematics is a science that studies the quantitative relationship and spatial form in the real world.”

Russell believes that “mathematics is a class of propositions of the form  $p$  containing  $q$ .”

However, are these the answers Grothendieck wants? Of course, Lu Qiu Jian would not think so. He thought carefully about Grothendieck’s experience, and then replied, “Mathematics is the need for human survival and the manifestation of the order of the universe.”

The reason Grothendieck gave up mathematics was that there was something more important than mathematics, that is, “the need for survival and the promotion of a stable and humane order on our planet. Lu Qiu Jian’s answer was I agreed with mathematics.

Grothendieck did not say right or wrong, and instead asked other questions, “Pierre said you are the most talented mathematician he has ever seen, and may become the next me.” He looked at Love. He smiled and shook his head again, “But I never thought that everyone is unique, Grothendieck is Grothendieck, Deligne is Deligne, Lu Qiu Jian will only be Lu Qiu Jian!”

“Okay! What else are you preparing for this time? I read your article a few days ago! I seem to have a hunch that a storm is coming in the mathematics world!” Grothendieck’s eyes were deep and distant, and there was no trace of it. turbid.

Perhaps this is the purpose of attracting him? There was a burst of rejoicing in Lu Qiu Jian’s heart. If he could persuade the Pope to support himself, he would undoubtedly achieve great success at this report meeting, and then he took a solid step towards the completion of the plan.

“I intend to give a speech on the last day of the report!” Lu Qiu Jian opened his bag, took out the speech, and handed it over with respectful hands.

Grothendieck is fluent in English, German and French, and this manuscript is written in English, he can understand it completely.

About Grothendieck, you can search for an article called “As if from the void-the story of Pope Grothendieck of algebraic geometry”.

Chapter 136 - The report will start

The appearance of Grothendieck has almost taken away the brilliance of all mathematicians. Whether it is the famous rivers and lakes like Wiles, or the new martial arts like Tao Zhexuan, he can only retreat under the shine. ☺

On the second day, all the invited mathematicians were present, and Beijing Normal University held a grand welcome dinner, where Lu Qiujian met many familiar faces, from the professors who supported him in Princeton to the textbooks. The authority of the field, from the familiar names in the four major journals to the partners who have been printing together.

“I still wanted to accept you as my student before. Now it seems that I want to be your student. I’m afraid it’s not enough!” Professor Hu of Modu also came. Now he doesn’t worry about the story of the story he wanted to accept. Maybe his name will appear in the history of mathematics because of this interesting thing.

“You have won the prize! Without the efforts of your generation to catch up, how can I be today!” This sentence is sincere. Professor Hu’s generation lacks the world’s leading achievements, but with their efforts, Hua Guo The gap with the Western scientific community has been shortened, which is also a remarkable achievement.

“I am Grigori-Perelman! Your proof process is very wonderful!” A middle-aged man with a big beard came over!

Lu Qiujian was a little embarrassed, and quickly reached out to shake his hand, “I have read the article you are in. I think you will crack it soon without me! I am just lucky. In front of you! “

Perelman shook his head, and made Lu Qiujian’s words a joke, “Congratulations on your achievements, but I think I should change my research direction!”

“I wish you success as soon as possible!” Of course, Lu Qiujiang is happy to see this happen. A breakthrough in mathematics will shorten the time for him to complete his plan. Such a genius has shown his fighting spirit, and it is indeed a matter of celebration. .

Walked around the crowd with a wine glass, and said a few words to one of them from time to time. Or answer the other party's questions about Poincaré's conjecture and his published paper, or exchange views on a novel point of view, or simply talk about today's food and wine.

Of course, Grothendieck was more sought after than Lu Qiujiang at the dinner. Even after disappearing for more than ten years in the mathematics circle, he did not weaken his charm. The believers who went to the pilgrimage were endless. Those who reached him were reluctant to leave, lest the Pope's Hadith be missed.

“Lv, come down!” He saw Lv Qiujiang in the crowd and beckoned him to come to his side.

“Seeing today's scene. I have to say that your departure was a huge regret!” Lu Qiujiang walked over with a smile, and he also wanted to know that if Grothendieck has been conducting research, today's mathematics session What will it look like again.

“This is a great guy!” Grothendieck patted his shoulder, “I feel that sooner or later he will surpass me!”

Huh ~ There was a marvel at the scene. With Grothendieck's position in the mathematics world, he was able to say such things. It was like Zhang Sanfeng was patting the shoulder of a chivalrous young man. Will definitely surpass me! What a noble praise!

Everyone who knows Grothendieck knows that he will not say insincere words for a certain purpose. So he is really optimistic about Lu Qiujiang! At this time, everyone saw Lu Qiujiang's vision even more differently!

Professor Zhang and the president of Peking University glanced across the crowd, first shook his head slightly depressed, and laughed together again! Hey, what if you can't stay at Beijing Normal University? Everyone will never forget that he is a man from Beijing Normal University. that's enough!

The deputy prime minister who came to the welcome dinner today looked a little strangely at the abnormal situation here. Someone who knew the situation immediately came to his ear and

whispered a few words. He nodded thoughtfully. In the next time in. The eyes turned to Lu Qiujian obviously became more frequent.

It's a good start, but unfortunately it's too early to get in touch with people who are too high-level. Lu Qiujian put the other person's attention in his heart. Continue to greet the guests who attended the dinner!

Since tomorrow is the official start time of the report meeting, the mathematicians who participated in the meeting are some older, so the dinner lasted until 9 o'clock and gradually disappeared. The mathematicians returned to the room to rest, preparing to listen to Lu Qiujian Tomorrow's report.

Early the next morning, the renovated lecture hall was full of people, and the background on the rostrum was replaced by a huge projection screen. The front of the screen was the lecture platform. The angle of the display was just right to allow the audience to see the screen without being affected. The speaker blocked.

In the front row of the auditorium are the elders, deputy prime ministers, ministers of several related departments, and other government officials, the prestigious mathematicians such as Grothendieck, the senior members of the International Mathematical Union, and the president of Beijing Normal University. People; mathematicians from around the world are sitting in a better position in front of the line of sight; teachers and students from the Department of Mathematics of Beijing Normal University and representatives of other colleges and universities are further back.

The time for the report meeting started The president of Peking University first came to the stage to give an opening speech, and then the elders at the meeting expressed their welcome to the mathematicians and the blessings for the successful holding of the meeting and the praise to Lu Qiujian.

Their speeches were very concise and did not delay for a long time; then the current chairman of the International Mathematical Union Jacob Parris took the stage to speak.

Jacob is a Brazilian. He received his Ph.D. at the University of California, Berkeley. He studied under the Fields Medal winner Stephen Smel. There are a few coincidences. Which year did Smel win? Grothendieck He is also a winner, and Smeer 's reason for winning the prize is precisely the huge progress made on Poincaré 's conjecture.

Jacob first reviewed the report of the International Conference of Mathematicians in Beijing last year, and then mentioned the efforts made by mathematicians in solving the problem of Poincare 's conjecture in the past 100 years, and finally said, "Gauss At the age of 19, he made a regular 17-

sided shape, and Galois' 18-year-old group theory completely solved the problem of drawing! And today, another young mathematician has achieved major results at such a young age! Lu from Beijing Normal University Qiu Jian completed the cracking of Poincaré's conjecture when he was 20 years old! Below, please ask Lu Qiu Jian to tell you how he solved this problem! “

There was a sudden round of applause at the scene. Lu Qiu built the whole suit, walked quickly to the stage, stood on the podium and looked around, and began his own report, “Ladies and gentlemen, welcome to Beijing Normal University. .... “

#### Chapter 137 - Big Husband

“First of all thank my primary school mathematics teacher, she will make me interested in mathematics; after high school I came to Beijing Normal University, where many first-rate mathematicians took me to know the beauty of mathematics; finally thank Princeton, thank them I provided the opportunity to crack Poincaré's conjecture! ”At this point, Lu Qiu Jian paused a little, and a smile appeared on the corner of his mouth.“ But I still want to persuade you, dear Princeton. Can it not be so difficult? The feeling of not being able to produce test papers is simply too bad! “

With a loud bang, the whole audience laughed. “” Published the small story behind the paper by Lv Qiu Jian, and they all understood the joke of Lv Qiu Jian. Everyone's eyes turned to Professor Nan's direction, and Dyson beside him grew his mouth wide and patted his shoulder hard.

“In 1904, the French mathematician Poincaré proposed the Poincaré conjecture; in the next 100 years, it attracted the attention of countless mathematicians; Whitehead tried to interpret it in three-dimensional European space; It turned into a pure group theory problem ... Although these views failed to solve this problem, they still have a positive meaning ... “Lu Qiu Jian's words were simultaneously translated into English by the interpreters , French, Lucian, Japanese, German, and many other languages, passed to the ears of countless audiences.

“It's really enviable, if one day I can ... no no no, even if one-tenth, one-twentieth or even one-hundredth of people come to listen to my report, I will die without regret! “Xu Ye could not help whispering in the back of the lecture hall, and Li Yincheng beside him nodded his approval.

Even Xiao Yue from the Department of Foreign Languages looked at the stage with stars, “Well, do you understand?” Xu Ye couldn't help asking.

“What does it matter if you don't understand? Don't you think he looks handsome on stage!” Sure enough, the focus of women and men is completely different!

“... Valentin-Benahu's one-thousand-page essay was found to be wrong, but we are still moving slowly and firmly towards the truth; Mr. Smel completed the five and five The above proof; Mr.

Friedman proved the Poincaré conjecture of the four-dimensional plane; Mr. Thurston introduced the method of geometric structure to cut the three-dimensional manifold; Mr. Hamilton finally found the most important to solve the Poincaré conjecture Tool-i flow! “Lv Qiujian stopped speaking at this point.

The mathematicians at the audience gave warm applause to the geniuses who made outstanding contributions to solve the Poincaré conjecture, such as Smel and Thurston. They also smiled and waved.

“On the basis of them, I can complete this final work. Let me talk about the main process of proving Poincaré’s conjecture!” Applause subsided, Lv Qiujian turned on the projector and started the formal report against the completed courseware. I proposed a monotonic form of i-flow, which holds in all dimensions without the assumption of curvature ... “

The lecture hall slowly quieted down, whether it was the mathematician in the front row or the students in the back, even the front-most official and the camera crew filmed on the side, they all held their breaths, fearing that they would miss any spit out from Lu Qiu’s mouth. One word.

With the turning of a page of courseware, the secret of Poincaré’s conjecture was gradually revealed; Xu Ye sighed softly. There was a bit of sourness in my heart. When I first entered the university, the guy who was not striking except for his height has now become an existence that he can never catch up with!

Grothendieck was pleased with his eyes, after Newton and Leibniz were Euler, then Euler was Gauss ... Hilbert came up after Riemann and Poincaré, and he was in Greece again. After Albert led the advancement of mathematics, and now a young genius has entered the palace of mathematics. The times have developed rapidly, and mathematics will never stop.

Hamilton shook his head gently with a smile. It seems to be saying that I have been doing i-stream for so many years, why didn’t I think of this step? But compared to those mathematicians who have passed away, how lucky I am! You can witness the great moment when Poincaré ’s conjecture was cracked.

The corners of Wiles’ mouth curled up. With a hint of pride, he didn’t know if he remembered his moment in the lecture hall of the University of Cambridge, about the moment of proving Fermat’s theorem.

Professor Zhang took off his glasses and wiped his tears. The figures of seniors such as Ke Zhao, Min Sihe, Pan Chengdong, Su Buqing, Wu Wenjun, Feng Kang, Chen Jingrun, Hua Luogeng came

to his mind. After generation after generation of predecessors, Chinese mathematicians finally stood at the top of the world mathematics circle today.

The president of Peking University opened his mouth slightly, as if he had seen a student from Peking University. On the podium of the highest honor in the mathematical world.

The heads of the elders and the deputy prime minister came together, and an expert behind them whispered to explain the significance of Lu Qiuqian's report. Sometimes they nodded and looked up to Lu Qiuqian on the stage, occasionally whispering two opinions, no Know what is being discussed?

As for the students of the Mathematics Department of Beijing Normal University and students from other universities, watching Lu Qiuqian sway freely and talk happily on the stage, a pride spewed out from his chest-the big husband should be so!

During this period, I experienced a short break. In addition to those who could not hold back to the bathroom, the other participants were sitting in the field. Some impatient people directly used various languages to present their views on Lu Qiuqian to his paper. ! So that the principal had to come out to remind that the question time was arranged in the afternoon, and the report has not been completed yet!

Back from the break, Lu Qiuqian continued to make a report, "... establish a key ellipse estimate and apply thickness decomposition to give a proof of Thurston's geometric guess ..."

The slightly chaotic order just because of the rest in the field saw the restoration of calm The audience's eyes were refocused on Lu Qiuqian, whether they could understand it or not, they could not keep up. Hear his ears and listen carefully, lest the treasure be missed.

The official report started at 9 o'clock in the morning, took a 15-minute break at 9:30, and then continued. Until 12 noon, the report finally came to an end.

Holding the mouse in his hand, Lv Qiuqian flipped the courseware for the last time. The last page of the courseware was displayed on the screen. The conclusion of Poincare's conjecture was clearly written on it, and turned to the audience. End here! "

There was thunderous applause throughout the audience. Although only a few people can really understand what he just said, everyone knows that this is a historical moment.

## Chapter 138 - Q & A

Wiles under the stage laughed the most. Lv Qiujian's concluding remarks were exactly the same as when he finished his speech to Fermat's Theorem, and there were people saying to him next to him. Presumably, he also remembered the scene in Cambridge in ten years. .

Other Princeton professors have a little regret. The achievements of Wiles and Lv Qiujian were completed in Princeton, but the report will be placed in Cambridge and one in Beijing Normal University; but they will be relieved in a flash. His attachment is a natural thing. Besides, this will not weaken the glory of Princeton; in just ten years, two major mathematical problems have been conquered in Princeton, and the status of the world's first mathematical academy has been consolidated again.

Perelman, Hamilton, Smel, Thurston and Qiu Chengtong applauded the scholars who had studied Poincaré's conjecture most sincerely, and only those who were present could understand the significance of Lu Qiujian's thesis. And the essence.

The president of Beijing Normal University, Professor Zhang and others are all applauding. This is a rare honor for the academic world of Beijing Normal University and even the entire Chinese universities. They have witnessed their scholars stand at the highest peak of the industry. How can one be dissatisfied with excitement?

"Okay, everyone! Mr. Lv Qiujian is already very tired, and it's lunch time now. You may wish to ask questions after dinner!" Seeing everyone eager to try, as the host, the president of Beijing Normal University quickly picked up the microphone, "In addition to the papers on this report, we have printed enough copies, please go to the door to collect in order!"

Until this time, the talents discovered that it took so long to unconsciously, so they had to bury their doubts in their hearts, as the crowd slowly walked to the door; smiling, elegant volunteers will print. They handed out beautifully prepared thesis brochures one by one.

Some anxiously stopped at the door and couldn't wait to turn and looked. It wasn't until a dissatisfied voice came from behind that he found himself blocking the road and quickly apologized and stepped aside.

Minister Zhang hurriedly directed the photographer who specially borrowed from the TV station to record this precious moment with a lens, secretly proud, they all said that five hundred copies were enough, or they insisted on printing more. Now it seems that my persistence is right!

“Congratulations, Mr. Lu! Your report opened my eyes!” This title seems awkward, but who made Lu Qiujian too young to get the title of professor!

“This is the most glorious page in the history of mathematics in the 21st century! I am proud that I can listen to your report with my own ears!”

“In the 21st century, less than three years have passed, and a more glorious page is still behind!” Lv Qiujian thanked them for their gratitude.

“Mr. Lu, the elders and the prime minister let you pass by!” A secretary-like person approached Lu Qiujian’s ear and said softly. go with.

“Xiao Lu, congratulations!” As soon as he walked over, the elder reached out his hand and shook hands with Lu Qiujian. “Congratulations on your achievements this time and let the world appreciate the style of our Chinese scientists! I hope to make persistent efforts and make greater achievements in future work!”

“Thank you for your teaching!” Lu Qiujian nodded, and then the Deputy Prime Minister and the leaders of the Ministry of Education, the Ministry of Science and Technology, the Chinese Mathematical Society and other departments also shook hands with him and encouraged them.

The principal looked at Lv Qiujian nervously, fearing that he would say something out of date, but when he saw his decent language, he did not show any arrogance before letting go; at the end of the conversation between these leaders and Lv Qiujian I went to issue an invitation to stay at Beijing Normal University for a meal, but the elders and the deputy prime minister left after busy work, and the rest were full of promises.

When the elders and the deputy prime minister went out. The deputy prime minister suddenly leaned into the elder’s ear and said something. The elder’s footsteps slowed down a bit, looked back at Lu Qiujian, and then nodded slightly. It seems to have agreed to a certain proposal from the Deputy Prime Minister.

At noon, although Beijing Normal University borrowed a senior chef from a nearby old-time hotel and only made exquisite Chinese food, how many of these mathematicians thought about tasting these? They stuffed their mouths indiscriminately. While excitedly exchanging his views on this report.

After eating and returning to the hotel for lunch break, he even lay in bed and turned over and over and couldn't fall asleep. The brain was full of Lv Qiujian's voice and the page of proof on the curtain.

Sometimes it is hard to get to the beginning of the noon meeting. They can't wait to come to the lecture hall and pass the questions they have prepared over and over again.

The report will continue. When the host announces that he can start asking questions, the brush raises countless arms at the same time; the host glances around and takes the lead in pointing at a familiar face, "Please ask John Mogan of Columbia University Professor questions. "

"Thank you!" Professor Mogan took the microphone. "My entire life as a mathematician was dedicated to Poincaré's conjecture. I never thought I could see an answer. I originally thought no one could do it. Fortunately, you have completed the final proof; but I have another question, how did you come up with this solution to the singularity? "

"It starts with my family Lü Qiujian does not need to translate the results in the same voice, and began to answer Professor Mogan's questions," I grew up in the family area of a large factory. After school, I always wandered around the factory. At that time, I liked watching the process of repairing damaged car fenders by skilled workers. They knocked out the bumps, cut out the irreparable parts, and patched the rough edges. These I was deeply impressed by the skillful movements; when I got the test paper, I was wondering if this method can also be used to solve the problem of singularity? And I also found my own hammers, knives and welding torches, that is the flow, i flow is applied to the three-dimensional space, it will start to make a smooth, smooth it ... "

Took ten minutes to answer Professor Mogan's question. Professor Mogan sat down contentedly, and more arms were raised again.

"Ask Professor Oscar von Luo Yantal from Humboldt University for questions!"

"Hello, what I want to ask is ..."

"Thank you for your answer!"

"Please ask Professor Napier from Trinity College Cambridge to ask questions!"

"There is Professor Mochizuki Shinichi from Kyoto University!"

“Please tell us your question, Professor Suvalov of Moscow University!”

One by one the name of the international mathematics session was pointed out by the host, and he asked Lu Qiu Jian one difficult question after another.

#### Chapter 139 - Day 2

“... At this step, the answering work enters the work scope of Yangu and Yamaguchi, and then we can see ...”

“The problem you raised is inherently flawed. The theory you just gave is not complete, and there are obvious logical flaws between the first and third points ...”

“Regarding this question, Mr. Grigory Perelman from the Skoglov Mathematics Research Institute already has the answer. He will come to the stage tomorrow to give a report, so you just need to wait patiently!”

For those questions, Lu Qiu Jian either answered positively, or relentlessly refuted them, or gave the opportunity to answer this question to the speaker who will appear tomorrow. ◇ ↓

At the beginning, the principal and Professor Zhang also worried that Lu Qiu Jian was asked by others not to come to Taiwan. Just last year, Professor Martin Deng Woody of the University of Southampton announced that he had proved Poincaré’s conjecture and put his five-page certificate Go to the Internet; “nature” and “” reported this news one after another, but soon someone pointed out the error, and then Professor Deng Wudi corrected it, the paper became six pages, and then the error was found and revised. ... after several cycles, he finally gave up.

Although Lu Qiu Jian’s paper has been published for several months, no one has found a flaw, but what if there is a chance? With such awkward psychology, they listened to intense questions and answers, but as the questions continued, they became more relaxed; from the current point of view, Lu Qiu Jian is enough to deal with these questions.

“Thank you for your answer!” Professor Blanca from the French Institute for Advanced Studies returned to his seat with satisfaction. Lu Qiu Jian took a hurry to take a sip of water, ready to meet the next question; but no one waited for three minutes. Stand up and look out the window, the sunset has reddened the clouds on the horizon; it turns out that more than four hours have passed unconsciously!

“It seems that everyone has no other questions for the time being, so today’s report will come to an end! Tomorrow’s schedule is supplemented by other experts who study Poincaré’s conjecture, and the speaker is Ge Ge from the Skgelov Mathematics Institute Mr. Rigori Perelman, Professor Cao from Lehigh University of the United States, and ... please prepare the above personnel in advance! “The host was late, so I ended today’s arrangement. Start to introduce tomorrow’s schedule, “Okay, the organizer has prepared exquisite food for you, you can go back to the hotel to rest after dining; at the same time, the hotel also has a public communication space, if you are still energetic, then welcome to communicate . “

After dinner, everyone returned to the hotel. Older, less energetic people like Grothendieck returned to the room early to take a rest; and young and energetic people like Perelman arrived happily. The public communication space prepared by the Beijing Normal University, walked around the crowd with wine glasses, and exchanged their views on today’s report.

Lu Qiuqian once again became the focus. Some mathematicians who are responsive and have digested the questions he answered at noon have started a new round of questions.

“If you have finished asking, how should Grisha report tomorrow?” Of course, Lu Qiuqian did not come here for the limelight. He answered the afternoon’s question about Poincaré’s conjecture. Start the topic, “Yes, I recently found something interesting in quantum algorithms ...”

“Oh? What is it?” Everyone’s attention was easily transferred to other fields, and Lu Qiuqian began to talk eloquently. From quantum algorithms to Langlands program, from non-commutative geometry to Gromov geometry group theory ...

On the second day of the meeting, Grigory Perelman first appeared, and he began to talk about his extension of Lu Qiuqian’s thesis; if the problem-solving process of a mathematical problem is likened to Go. The national hand can see the next five steps from two steps. Lu Qiuqian completed this part of the work; but among all the mathematicians, the national hand strength is ultimately a minority, and the missing five steps for them are Loopholes. And Perelman’s job is to follow Lu Qiuqian’s thinking and drop a piece, so that the direction of the game is more clearly exposed to them. Even those who are slightly weaker in chess can help with his report. See clearly the future of chess.

Because it is a supplementary speech. Perelman did n’t have much time left. After half an hour, he finished his report and spent another half hour answering the questions of the audience. His report ended here.

The following is also true of Professor Cao 's report. After him, mathematicians from other universities came to the stage to explain their research results on this issue; with the help of these people, about one-third of the people present were right Lu Qiujiang's thesis has a clearer understanding.

Of course, the remaining two-thirds of the mathematicians and almost all the students did not understand what they were talking about in the past two days, which is also impossible. Because from the second half of the 19th century, mathematics was important The field has become very much, most mathematicians are only proficient in their own research fields, such as Cauchy, Weirstrass, Cantor are good at axiomization of calculus, brother Del is proficient in mathematical logic and basic theories of computers. Chen Shengshen and Weir are distinguished in differential geometry and mathematical physics, respectively ... but they may not have a clear understanding of cutting-edge problems in other fields, even if they are like God Grothendieck covered half of the mathematical world.

The same is true of other disciplines, whether it is physics, chemistry or biology, fewer and fewer people know the whole field; so Einstein is so respected, because in the theoretical physics session, he is almost omnipotent! No one can do this after him; maybe Yang Zhenning can barely count in half. He is an authority in the fields of high energy and condensed matter. Although he has no great achievements in cosmology and relativity, he at least understands After all, he taught general relativity for a while in Shixi.

The morning report will be over. Although it was not as sensational as Lu Qiujiang 's yesterday, it has achieved good results. Without understanding Poincaré's conjecture, the way of thinking in these reports can still provide a lot of help to the theory they are good at.

This is also an important reason why they are willing to attend this report meeting, otherwise they will not waste their precious time.

The process of the second day soon ended, and on the third day everyone gathered at the venue again, and the last day of the report began!

### Chapter 140 - Day 3

In the morning, mathematicians from various mathematics halls came to the stage to explain their views on future mathematics. Edward Witten showed everyone the latest results of using mathematics to promote the development of high-energy physics; Tao Zhexuan reported that he was cracking the Eldersh difference Problems encountered in the work of the problem.

Of course, the biggest sensation in the venue came from two neon people. Mochizuki Shinichi took the lead in declaring that he established a new world that he called "intercosmic theory" and saw the

hope of cracking the “conjecture”. He defined Various unprecedented mysterious terms, such as “Hodge Theater”, “Alien Arithmetic Holomorphic Structure”, etc .; I hope everyone admits that they have created a completely new mathematical system like they recognized Robachevsky’s non-European geometric system, but All this is useless, and no one can understand what he said.

Another guy named Satoshi Nakamoto claimed that he used cryptographic knowledge to create a brand new digital currency. This currency does not have a centralized issuer, but is generated by the calculation of network nodes. Anyone may participate in the manufacture. , And can be circulated around the world, can be bought and sold on any computer connected to the Internet, no matter where they are, anyone can mine, buy, sell or receive this currency, and outsiders can not identify the user during the transaction process Information is not controlled by any central bank or financial institution.

He regarded this currency as the universal currency in the future Internet era, and vigorously described the bright future of this currency, calling it another great revolution in economic history since paper currency replaced financial currency! But like his compatriots, he did not gain much recognition from mathematicians.

Of course, the morning exchange is not without any results. For example, the Langlands Program was recognized by most mathematicians as the next major breakthrough in the mathematics.

Robert Langlands is a Canadian, and later came to the United States to obtain a doctorate from Yale University, and then came to the Princeton Institute for Advanced Research to win the Wolf Prize in 1996.

In 1967. That is the year when he was promoted to professor, he wrote a letter to André Weil, one of the early members of the Burbuck School, the authority of number theory and algebraic geometry, in which he proposed a set of far-reaching Conjectures, these conjectures accurately predicted the possible connections between interdisciplinary fields of non-commutative harmonic analysis, automorphic form theory, and number theory in mathematics, and tried to unify them.

This conjecture has been gradually confirmed by the efforts of him and other mathematicians; in Freeman-Dyson’s words, Langlands is doing bird work.

This link greatly inspired the passion of mathematicians, because the Poincaré conjecture is great, but it does not necessarily directly affect his research field, and now the fierce collision between various views at the conference The spark of inspiration produced may benefit you directly!

Until noon rest time. They also walked into several groups for intense debate, all trying to persuade the object of the debate. The opinions they hold are correct, and they are the development direction of modern mathematics. They will not stop until they enter the restaurant. , Talking and eating while holding plates together.

“The emergence of irrational numbers allows humans to accurately study the properties of the static world. The emergence of calculus allows humans to study the properties of the dynamic world, fluids, heat, electromagnetics. Theory of relativity, etc. The breakthrough of mathematics should not be to face a mirror in an empty room The solo dance should provide strong support for the development of real disciplines such as physics, so I hope that the next breakthrough will provide the entire modern physics with a solid mathematical foundation like the original calculus and differential equations! “Witten Flirtingly described his expectations.

“Then the mathematicians let you down, so did you start studying mathematics yourself?” Someone made a joke. However, Witten’s identity is indeed interesting. Obviously the authority of physics, he has won the Fields Medal, and Nobel has always refused to be attached to him.

“I just looked forward to a breakthrough in quantum algorithms. Lu painted a beautiful picture for us last night. I hope he can make achievements in this field as soon as possible!” Said another person.

“I think it’s unlikely, after he has decided to graduate ...” Witten shook his head. He wrote a recommendation letter for Lu Qiuqian, but when he thought about it, it seemed that Lu Qiuqian didn’t announce that he was exposed, so he quickly shifted the topic, “Oh, let’s guess who will give the closing speech. ? “

“Since Alexander is coming, who will be qualified besides him?” Compared with the status of the rivers and lakes, there are indeed no characters who can stand alongside Grothendieck.

“I also think it is Alexander!” Someone immediately echoed, “I was shocked when I saw him. He hadn’t appeared in the mathematics for more than ten years! I didn’t expect to come to China!”

“The Poincaré conjecture alone is not enough to attract him. It seems that he really appreciates Lv Qiuqian!” The man turned his head to Witten, “What did Mr. Deligne say to Mr. Grothendieck? You and Deligne. Mr. is a colleague, should I know something? “

“Actually I don’t know! But I also think that Mr. Grothendieck is the best person for the closing speech!” If Grothendieck didn’t come to then he might also be qualified, but even if he is, From the

current point of view, the influence on the mathematics community can not be compared with Grothendieck.

“But the theme of this meeting is the Poincaré conjecture, and Mr. Grothendieck is good at algebraic geometry!” Of course there will always be different opinions, “I think Professor Thurston or Hamilton are more suitable!”

“At the beginning of the century, was it more appropriate for Mr. Grothendieck to look forward to the future development of mathematics like Hilbert in those years?”

“Mr. Grothendieck has been away from mainstream mathematics for too long!”

Everyone is caught in a heated debate, but most people think that Grothendieck is the most qualified person to make a concluding speech.

After dinner, the rest was over, and it was the last process of the meeting; at three o'clock in the afternoon, these mathematicians returned to the lecture hall, quietly waiting for the beginning of the concluding speech.

To their surprise, Grothendieck was still sitting in the front seat, talking and laughing with the people next to him, and had no preparation for a speech.

Just as they continued to guess, the last process of the meeting began; Lu Qiujian slowly spit out from the host's mouth, and they were all surprised to grow their mouths!