

Hexin Bi

History of Psychology

Professor Doron Zeilberger

Essay of Shi Tuo Lou

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Shituo Lou is a participant in the Ramanujan Century Conference in 1987. The conference is held for celebrated the 100th birthday of Indian genius Srinivasa Ramanujan. Srinivasa Ramanujan was an Indian mathematician who made great and original contributions to many mathematical fields including complex analysis, number theory, and infinite theory. Doctor Lou was born in 1941 and died in 2015. He is one of the first generations of mathematicians who attend the international conference. He got his bachelor's degree from Fudan University. His teacher is a famous Chinese mathematician Loo-Keng Hua. They work together and came up with several articles to solve the great mystery in mathematics. After graduating from Fu-Dan University, he chose to be a professor at Shan Dong and Shanghai technology University. He has been through a tough era in which is hard for scientists to pursue their careers. The whole society looks down upon the scholar and teachers. China has been through a chaotic century. During the great proletarian cultural revolution, most scientists have been threatened and persecuted. They have to be sent to the countryside and factory instead of doing research or teaching in the university. Before he became a professor, he was forced to work in a factory. He fought for his right and work as a professor at Shandong University from 1978 to 1982. He worked with other mathematicians and his wife Qi Yao and published the first math textbook. They chose some

talented teenagers around 13-14 and teach them advanced mathematics. Some of them already became mathematicians and professors working in the University. Shi tuo decides to move to America and gets his Ph.D. Degree in University of Illinois at Urbana-Champaign. Like the article “Number theory, trace formulas, and discrete groups. Doctor Lou worked with several mathematicians like Canadian mathematician Halberstam and won the prize of Hardy-Ramanujan Society in 1991.

Like other participants of the Ramanujan Century Conference, Shituo is also interested in number theory a lot. Overall, he analyzed and published several articles in number theory, computer science, and operator theory, etc. He tried to prove Riemann’s hypothesis with his wife Qi Yao and successfully shorten the interval. They also try to work on Ramanujan’s work in the article the number of prime number theorem in a short interval. “Two very general theorems are given, which result in upper and lower bounds for  $\pi(x) - \pi(x - y)$ , provided one has suitable mean-value estimates for products of Dirichlet polynomials. Such bounds are then proved by using the standard mean and large values estimates.” (Math sci net). With the help of his wife and other mathematicians, Doctor Lou has published several works related to the number theory to explain the work of Ramanujan.

