Guanzhou Conference

In the summer of 1979, I went to Geneva, Switzerlad to attend the biannual meeting of European Physical Society (EPS). This meeting is some what special that after many years of isolation China sent an official delegation led by Professor Hu Ning of Peiking University .The member of delegates include Prof. Xian Ding Chang from Institute of High Energy Physics (IHEP) and he was the confidant of Hung Yuan Zhu the head of the theoretical physics division at IHEP. Xian was given aspecial assignment of collecting names of theoretical physicists of Chinese decend working outside China so that they will be invited later for a conference of Chinese theoretical physicists. The reason for oganizing this conference has a rather long explanation. During the year of 1979 the famous Chinese physicist T. D. Lee was giving a course on field theory and high energy physics in Beijing to a collection of Chinese graduate students and young researchers. Each day the Prof Lee lectured about 4 or 5 hours and it went on for serveral months. Later this set of lectures has been written up and published as a book titled "Particle Physics and Introduction to Field Theory" In one of the occasions during this period, Prof. Lee was asked whether it is a good idea to organize a conference for theoretical physicists of Chinese decent. In particular, he was asked the touchy question about inviting Prof C.N. Yang for such occasion. Prof. Lee answered that Yang-Mills field theory has become such an important tool in thoreticlal physic and is certainly one of the most important contibution to theoretical physice that Yang should certianly be invited.

To explain the significance of this event, let me go back to summer of 1962 when Lee and Yang offically broke off their long term collaboration. Their long friendshp began when they were graduate students in University of Chicago in the late1940's and started collaboration in working on the physical problems with lots of successes. Recall that Lee came over to US after finishing 3 years of college while Yang complted the Master degree when he arrived in Chicago. Futhermore, Yang's father was a professor of mathematics at Tsinghua Univeristy and Yang certinally had more experience in problems which requires mathematical skills. Lee was lot more willing to try out new ideas. In any case they complement each other quite well and have complished many important work both in high energy physics and statiscal mechanics. In the summertime, they usually got together at Brookhaven National Laboratory to collaborate on the reach work. The high point of collaboration won them a nobel prize in 1957 for their work on the parity violation in weak interaction, which does not require much sophisticate calculation. It is the first time Chinese physicists had won the this important international prestige award. Before this many of young student who are interested in science opt for chemistry because that is something they can relate to instead of physics which is consider dry and hard. The success of Lee and Yang had set an example for young scientists and all of sudden the number of students going into physics increases dramaticaly.

As far as I can tell Lee and Yang both have very strong personality and like most of the famous scientists they all have a strong conviction of their belief. Their broke off is probably just matter of time. After the nobel prize

the relation deterioates to an unsalvageable state. From what I can gather one of points of dispute is that Yang thinks that since he is the senior member of the collaboration, he demands that his name should appears first in their papers, Yang and Lee instead of alphabetical order as Lee and Yang. In high energy community in most of the papers names of the authors are arranged in alphabetical order with very few exceptions. Lee are not willing to go along with this suggestion and tension persists until summer of 1962. According to the secretary of the theory group one morning in the summer of 1962 she heard the shouting and screaming in the office shared by Lee and Yang. Since they used Chinese in the chaos of shouting she did not understand a word of it. The next morning Lee came in and move his desk to anoher office used by G. Feinberg another professor of Columbia university and was also visiting Brookhaven at that time. Lee and Yang have not talk to each other ever since.

When the news of the break up of Lee an Yang spreaded around most people in the high energy community feel sad that such an effective collaboration is no longer operating. Many people have tried to mediate the dispute and tried to get them back togather again without any success. In particular, Premier Chou En-lai had made an effort to mediate without much luck. Premier Chou felt so frustrated that he made this as one of his big failure of his diplomatic life. So his last words before he died is to ask the high energy community to get Lee and Yang back togather again by all means possible. So not long after Premier passed away in early 1976 high energy community has tried to find a way to accomplish this mission. Later that year Chairman Mao passed away. This more or less signaled the end of the cultural revolution and everybody was trying to get back to what was before. In particular, universities start to re-admit students and re-establish research programs. Under this background T. D. Lee gave a course on high energy physics in order to bring the young people up to date about the current research. He lectured tirelessly for a few months and made a very important contribution in the trainning of the young researchers. In the meantime an idea of organizing a conference inviting both Lee and Yang sounded like a good idea and was approved by both Lee and Yang. So the organizing the conference went smoothly. It was agreed that this conference should invite all the theoretical physicists of Chinese decent. Since China has been cutoff from the outside contact since 60's this creats a problem as to whom to invite for those who working outside China. So in Geneva I was asked to help to draw up a list of names for those Chinese physicists who work in US. I did my best in making up the list and gave to Prof. Xian. But he also asked me to help him to get a paper back book " Roots" by Alex Haley. This a fictional book describes an African-American traced his ancestors from African publised in 1976. Later this book was turned into a TV series and had an enormous success. So I got hold a copy of this book and gave to Prof Xian to bring back to Beijing. It was circulated among theoretical physcists in Beijing.

The conference for getting togather Lee and Yang did take place at begining of 1990 at some resort area near Guanzhou. This is the first time Lee and Yang shook hands since 1962 and everybody felt relieved that this historical event finally took place and confence was chaired by Prof. Hu Ning of Peking Uni-

versity. In this conference, Prof. Hu Ning made the statment that if you trace the root of science it is certainly in China (this is inreference to the book roots metioned before). After this C. N. Yang commented that to say that the root of science is in China is totally misleading. Any decent scientist will say the modern science was rooted in ancient Greek scientific method of reasoning and deduction. He also emphasized that, the high energy machine is getting more and more expensive and experiments become so big that they need collaobation of many countries. So Yang urged younger physicists to work on more mathematical topics which do not depend so much on the experiments. T. D. Lee was invited to comment on Yang's theme. Lee said that the roots of science just like roots of a big tree and will have many roots and he thinks one of the roots is in China. Furthermore he thinks physics is an experimental science and anything which does not have experimental support is not physics. These clearly show the different personality and temperment of these two great Chinese physcists.