

# Rapid Development of Science and Technology in China

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# 1. Introduction

I was invited by Chinese Academy of Sciences in January 1981 to give a series of lectures in a winter school of nuclear physics organized by the Academy of Beijing. This was the first visit of mine to China. I was very excited by this trip.

One evening on this occasion, I met Dr. Qian

Sanqiang , the Vice President of CAS those days.

Prof. Yang Chen-Ning who was those days in the University of Stony Brook of New York, K.K.Hua of National University of Singapore, and I tried to organize an International Conference of Physics somewhere in Asia and after that we hoped to establish an Asian and Pacific Physical Society. I consulted Dr. Qian Sanqiang on this matter.

He agreed with me to organize the first Asian  
International Conference of physics and also  
the Asian Physical Society.

He further suggested either some city in China or Singapore as a conference site. His agreement encouraged me very much. In 1983 the first Asian International Conference of Physics was organized and held in the National University of Singapore. I was very glad to find many Chinese physicists in this conference.

I thanked Dr. Qian Sanqiang for helping us very actively. Since then I have visited China more than one hundred and fifty times. I always have enjoyed research collaborations with my Chinese colleagues.

February and March in the same year (1981), I was again invited by the Chinese Academy of Science to give a series of lectures on nuclear physics in the Chinese Atomic Energy Institute in Beijing.



On this occasion I could visit Lanzhou, Suzhou and Shanghai. Furthermore, from Lanzhou I took a train to Anyang, because I have been very fond of Chinese history especially ancient one. In Anyang I was really excited by visiting remains of the Yin Dynasty.

I have been a fond of Chinese literature, for example, Lun-yu, Zhuang-zi and poems, especially of Tang shi huang.

I must thank China to educate Japanese by those books for more than 1500 years.

I have enjoyed the collaboration with Professor Jie Meng concerning about Relativistic Density Functional Theory. I am very happy to realize that the normal spin-orbit splitting can coexist with the pseudo spin-orbit splitting.

In these 20 years, the collaboration with Professor Yu-Min Zhao and his students have been exciting to me. I could understand more clearly the role of the nuclear mass formula for example.

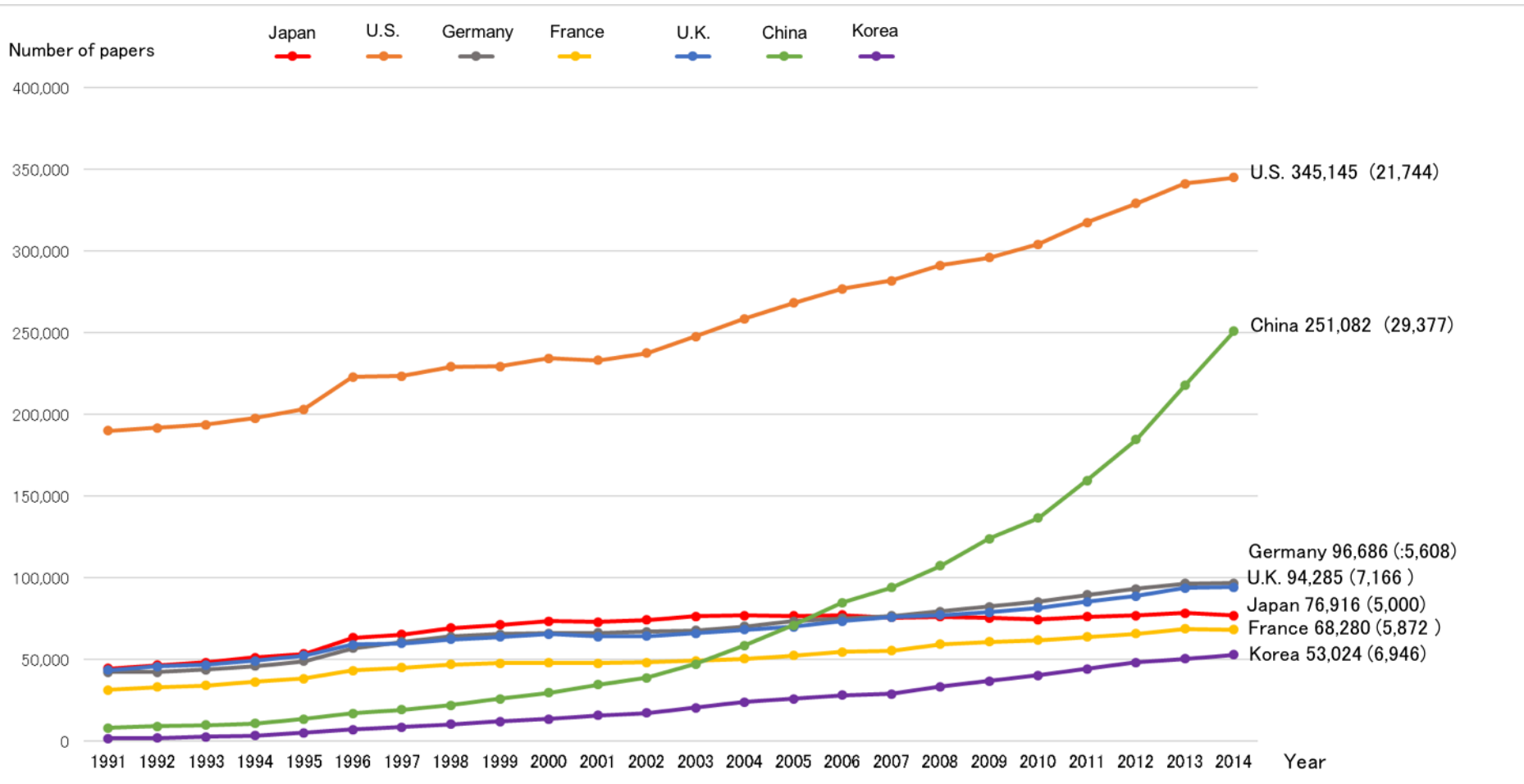
## **2. Rapid Development of Science and Technology in China**

Economy, Science and Technology in China have been remarkably developed these 20 years.

Figure 1 shows numbers of research papers of science and technology.

# Fig.1 Rapid Development of Science and Technology in China

- Number of Chinese research papers has strongly increased these years, overtaking Japan, and moving to the 2<sup>nd</sup> rank after U.S.
- Chinese papers share the top 10% of citations, become close to other developed counties.
- In the field of engineering, China has already overtaken the U.S. and is rank 1 of the world.



(...) papers in Engineering

From: Nat. Inst. of Science and Technology Policy 「科学技術指標2016（統計集）」を基に作成。

In 1996 Japan became the 2<sup>nd</sup> in the world.

In 2008, however, Japan dropped down to the 3<sup>rd</sup> ,  
and after 2009 to the 5<sup>th</sup> in the world. I am very  
much worrying about this situation of Japan.

On the other hand, China is rising up very quickly. China is the 2<sup>nd</sup> after 2008. In the field of engineering, China is already the 1<sup>st</sup> .

I wish to congratulate my Chinese colleagues on this success which is really the result of your endeavor.

As you see in Figure 1, Korea is also rising up.

I am extremely glad to see that in Asian countries

China, Korea and Japan, researches of science

and technology have been very active. We three

neighbors will cooperate further strongly.



I hope that you colleagues of mine here will cooperate with each other to develop nuclear physics in order to contribute to human welfare and world peace.

International cooperation is most essential  
in order to develop science and technology.

Thank you very much for listening to me.