Exploring the vast universe hand in hand, Working together toward a better future for humankind

– Speech at the opening ceremony of the 28th IAU General Assembly

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Dear honored chairman, ladies, gentlemen, and friends,

Today, more than 2000 astronomers from all over the world gather together in Beijing to attend the 28th General Assembly of the International Astronomical Union. This is a grand event for astronomy. It is the first time for China to host an IAU General Assembly since China joined the IAU in 1935. On behalf of President HU Jintao, the Chinese Government, and the Chinese people, I am here to express our warm congratulations to this General Assembly, and express our sincere gratitude and cordial welcome to all attendants.

Astronomy, as the science to explore the universe, is one of the most important and the most active scientific frontiers that has pushed forward natural sciences and technology, and led to the advances of modern society. It has tremendously important influences on the progress of other branches of natural science and the development of technology. The vast expanse of space always stirs the curiosity of human beings on the earth, fascinates them, and has attracted generations after generations to devote themselves to the exploration of the universe. As the science to study the position, distribution, motion, morphology, structure, chemical composition, physical properties, origin, and evolution of the celestial bodies and matters in the universe, astronomy occupies an important position in the humans' activity of understanding and transforming the world. As we see, every major discovery in astronomy has deepened our understanding of the mysterious universe, every significant achievement in astronomy has enriched our knowledge repository, and every breakthrough in the cross-disciplinary research between astronomy and other sciences has exerted both immediate and far-reaching impacts on fundamental science and even human civilization.

As one of the ancient civilizations in the world, the ancient Chinese used to work after sunrise and rest after sunset, and started to gaze at the starry sky from very early on. At the end of the Warring States period more than 2300 years ago, the great romantic poet Qu Yuan in his ''Inquiries of Heaven'' queried "Whoever has conveyed to us, Stories of the remotest past? Who can verify the shapeless Beginning time has overcast?" Our ancestors already built their astronomical observatories as early as 13th century BCE or even earlier, and we have kept the longest and most comprehensive records of astronomical phenomena in the world. Modern astronomy in China started 90 years ago, with the Chinese Astronomical Union being founded in 1922, the Chinese Astronomical Research Institute founded in 1928, and the Purple Mountain Observatory built in 1934. Since the founding of the People's Republic of China, especially since its reforming and opening up, Chinese Academy has established the systematic operating mechanism of modern astronomical observatories, after building the large sky area multi-object fiber spectroscopic survey telescope (LAMOST), now is constructing the five-hundred meter spherical radio telescope (FAST), and is also making progress in space astronomy and Antarctic astronomy.

The advancement of astronomy is the result of the efforts of all humankind, and manifests the wisdom of humanity. The history of its development has offered us very valuable and profound enlightenment.

First, the development of science and technology is the driving force for humankind's exploration and transformation of the materialistic world. Science and technology are the most active, most revolutionary factor in eco-social development. Every grand advancement of human civilization is closely related to the revolutionary breakthrough in science and technology. The development of science and technology has profoundly changed the way people live and work, and science and technology are becoming the main driving forces for eco-social progress. To achieve sustainable eco-social development and wholesome development of human beings, it is critical to rely on scientific progress and technological innovation.

Secondly, the development of science and technology requires persistent exploration and longterm accumulation. The exploration of the mysterious universe, just like the explorations of other science branches, should be endless. Science and technology, as the achievements of humankind in their exploration and transformation of the world, are the creative products of scientists only after their persistent exploration and long term accumulation. Only working in full devotion, exploring with never-ceasing steps, furthering continuously on the shoulders of giants, can one reach the pinnacles of science and drive the progress of humankind.

Thirdly, the development of science and technology requires to continuously emphasize and strengthen basic research. Astronomy as an observational science is a very crucial field of basic research. Such a field requires strategic plans for deployment in advance, with full respect to the internal logic of research activities and their long-term benefits. We will make larger and larger investments in such a field and ensure their execution, provide long-term and stable support to scientists, so that the scientists can discover, invent, create, and advance constantly, and make more and more achievements that will benefit humankind.

Fourthly, the development of science and technology requires broad and sound support from the public. Science and technology are a noble course that both benefit and rely on society, and the full development requires not only public understanding from all sides, but also the active participation of the public. Public outreach should be given equal emphasis as scientific research to educate the public, so as to create a positive atmosphere for the public to respect, love, learn and use science, and to inspire the creativity for science and technological innovation among the public.

Fifthly, the development of science and technology requires extensive international cooperation. Science and technology have no nationality! The vast expense of space is the common home of all humankind; to explore this vast universe is the common goal of all humankind; astronomy in fast development is the shared fortune of all humankind. Nowadays the challenges for science and technology are more and more globalized, and all humankind are faced with the same problems in energy and resources, ecological environments, climate change, natural disasters, food security, public health, and so on. Both basic research such as astronomy and these common problems require scientific and technological exchanges and cooperation in various forms between different nations and districts, in order to push forward science and technological innovation, human civilization, sustainable development, and to benefit all humankind.

Today's world is an open world, and countries are depending on each other more and more heavily. In the past 30 years, China opened its gate not only for economic development, but also for exchanges and cooperation in science and technology. Especially since the advent of

the 21st century, China has hosted a series of important international conferences in natural sciences and engineering disciplines, such as the international congress of mathematicians and the World's Engineers' Convention and so on. This has greatly broadened the international horizon of the Chinese science and technology community, deepened the world's understanding of China, promoted mutual exchanges and cooperation between the Chinese and international science and technology communities, and created favorable conditions for the Chinese community to make their contributions to the world.

The convening of the 28th IAU General Assembly in China, I believe, will certainly promote the friendship between Chinese astronomers and astronomers from other countries, promote the exchanges and cooperation between the Chinese and international astronomy communities, and promote the development of China's astronomy and other related sciences. This convention, I believe, will inspire curious youngsters from all over the world including China to cast their attention and desire to the vast universe, and motivate them to devote themselves to the observations and studies in astronomy, and to science and technological innovations.

Finally, I wish this General Assembly a great success, and wish astronomers from all countries to explore the vast universe hand in hand, and to work together toward a better future for humankind.

Thank you, all!