Preface

In the past two years, space science in China has been developing with a fast pace. Following the launch of “DAMPE” and “SJ-10” in late 2015 and early 2016, four more satellites dedicated to space science have been launched. They are Quantum Experiment in Space Scale, or “Mozi” (launched on 16 August 2016), CO_2 Observation Satellite, or “TanSat” (launched on 12 December 2016), Hard X-Ray Modulation Telescope, or “Huiyan” (launched on 15 June 2017), China Seismo-Electromagnetic Satellite (CSES), or “Zhangheng-1” (launched on 2 February 2018). Among them, “Mozi” and “Huiyan” are supported by the Strategic Priority Program on Space Science (SPP-SS) of Chinese Academy of Sciences (CAS). It is the first time that China has a series of science satellites. At the same time, other science missions, such as SVOM, are still in progress.

After more than two years’ operation, DAMEPE, or “WuKong”, produced wonderful results. A new spectrum of cosmic ray electron above 1 TeV was discovered and published by *Nature* in November last year. “Mozi” had completed all three experiments. The results were published by *Nature* and *Science*. Interesting results from “SJ-10” are being compared with the ground experiments. “Zhangheng-1” has published its first global maps of geomagnetic elements, while “TanSat” published its first map of CO_2 over the world with very good accuracy.

On the other hand, China is preparing new space science missions. At least four missions have been approved to kick off for their engineering phases, including Einstein Probe (EP), Advance Solar Observatory in Space (ASO-S), Solar Wind, Magnetosphere, Ionosphere Link Explorer (SMILE), and Gravitational Wave Electromagnetics Sources Corresponding Measurements (GECAM). Several other new missions are still under study. Space Science in China is in a new era. We are looking forward to cooperating with others who are willing to promote science with China. Among the above mentioned missions, EP and SMILE are certainly international joint missions, while ASO-S and GECAM are welcoming international participations.

Space activities in other disciplines remain active. China’s space station is still under construction. “Tiangong 2” and “Shenzhou 11” had been launched successfully and had made a perfect docking. Scientific payloads for earth science and space environment have yielded good results, which you will certainly find in this report. For deep space, China has launched a lunar communication relay satellite “Queqiao” successfully this May, to help the communication of Chang’e-4 lander on the far side of the moon.

I wish you can get the general picture of our progress in space science research and also invite you to use our published data from the missions mentioned above. Furthermore, close cooperation with us is more than welcome.

Best regards,

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