The Rising Chinese Space Mission

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With the initiation of Space Science Pioneer Strategy Program, a few space science missions have started to investigate the key questions relating to space physics or other scientific area like quantum theory. The Solar wind Magnetosphere Ionosphere Link Explorer, SMILE is a mission sponsored by China and European Space Agency. The scientific objective of the mission is to study the coupling between the solar wind, magnetosphere and ionosphere by imaging the boundary of Earth's magnetosphere with X ray, which is produced from the highly charged solar wind ions and neutral particles Earth's magnetosphere and . This will be the first time to image Earth's magnetosphere directly. In addition to an X-ray imager, the spacecraft also has particle detectors and magnetometer to monitor the incoming solar wind condition, which acts as a driver for the disturbance of Earth's magnetosphere. The Chinese Mars mission includes an orbiter with particle detectors onboard to study the ions and neutral particle flow from the Mars resulting from the interaction with solar wind. Carefully implement of the mission will further our understanding on the mass loss from the Mars and other planets.