The dissemination of Tycho Brahe's solar and lunar theories in late Ming and early Qing China

Rapport sur les contributions

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With the compilation of the Chongzhen lishu (崇禎曆書, Chongzhen Reign Treatises on Calendrical Astronomy, completed around 1634-1635) in the late Ming dynasty (明, 1368–1644), Tycho's theories were first introduced into China, among which the solar and lunar theories were the most important. The solar theory underwent continuous revisions in its two later versions, the Xiyang xinfa lishu (西洋新法曆書, Treatises on calendrical astronomy according to the new Western methods, 1645) and the Lixiang kaocheng (曆象考成, Thorough investigation of calendrical astronomy, 1722). As for the lunar theory, there were a lot of inconsistencies and unclear descriptions in the Chongzhen lishu, which caused confusion and aroused discussion among Chinese astronomers at that time. Eventually, another lunar model, different from but basically equivalent to Tycho's model, was presented in the Lixiang kaocheng, which was probably attributed to several private Chinese astronomers in the Qing dynasty (清, 1644–1911). In my presentation, I will introduce this dissemination in detail and further related issues. For example, I will analyse the overall differences of the three versions of the solar theory, compare the differences between Tycho's lunar model and that in the Lixiang kaocheng, and discuss Chinese astronomers' understanding of Tycho's lunar model as well as their contributions.

Orateur: Mme JI, Chen (PSL-Paris Observatory & University of Science and Technology of China)

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