国際水星探査計画ベピコロンボの最新状況と今後の計画

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Updated status and operations plans of the BepiColombo mission

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The ESA-JAXA joint mission BepiColombo is now on the track to Mercury. Two spacecraft for BepiColombo, 'Mio' (Mercury Magnetospheric Orbiter: MMO) and 'Bepi' (Mercury Planetary Orbiter: MPO), were successfully launched by Ariane-5 launch vehicle from Kourou in French Guiana on 20 October 2018. During the cruise to Mercury, in addition to two spacecraft MMO Sunshield and Interface Structure (MOSIF) and Mercury Transfer Module (MTM) are all integrated together. Commissioning operations of Mio and its science payloads, including the instruments with high-voltage power supply, have been done in November 2018 and May-August 2019. After these commissionings, we can more focus on preparing science operations for interplanetary cruise and planetry flybys. Some science instruments can be used even in the composit spacecraft configuration. The first and second flybys will happen at the Earth in April 2019 and at Venus in October 2019, respectively. We have started to discuss with wider science communities, e.g., heliospheric physics and Venus science. Here we report the updated status of BepiColombo mission, initial results of the commissioning operations, and the future strategy and plans for upcoming interplanetary cruise and planetary flybys.