

**R009-01**  
**B会場：11/6 AM1 (9:00-10:30)**  
**09:00~09:15**

#村上 豪<sup>1)</sup>, Benkhoff Johannes<sup>2)</sup>  
(<sup>1</sup>JAXA/ISAS, (<sup>2</sup>ESA

## **Updated status of BepiColombo and initial reports on Mercury flyby observations**

#Go Murakami<sup>1)</sup>, Johannes Benkhoff<sup>2)</sup>  
(<sup>1</sup>JAXA/ISAS, (<sup>2</sup>ESA

The ESA-JAXA joint mission BepiColombo is now on the track to Mercury. After the successful launch of the two spacecraft for BepiColombo, Mio (Mercury Magnetospheric Orbiter: MMO) and Mercury Planetary Orbiter (MPO), commissioning operations of the spacecraft and their science payloads were completed. BepiColombo will arrive at Mercury in the end of 2025, and it has 7-years cruise with the heliocentric distance range of 0.3-1.2 AU. The long cruise phase also includes 9 planetary flybys: once at the Earth, twice at Venus, and 6 times at Mercury. The first and second Mercury flybys were completed on 1 October 2021 and 23 June 2022, respectively. In both flybys the closest approach altitudes were ~200km at the southern hemisphere. We performed science observations with almost all the instruments onboard Mio for about +-24 h from the closest approach. Especially the MPPE instrument successfully observed low energy ions and electrons simultaneously in the Mercury's magnetosphere first time ever. Here we present the updated status of BepiColombo mission, initial results of the science observations during the Mercury flybys, and the upcoming observation plans.