



Overview of BepiColombo MMO

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BepiColombo has been defined as the ESA-JAXA joint mission to Mercury with the aim to understand the process of planetary formation and evolution in the hottest part of the proto-planetary nebula as well as to understand similarities and differences between the magnetospheres of Mercury and Earth. The baseline mission consists of two spacecraft: the Mercury Planetary Orbiter (MPO) and the Mercury Magnetospheric Orbiter (MMO). The two orbiters will be launched together on one Soyuz-Fregat 2B in mid 2012. JAXA is responsible for development and operation of MMO. The main objectives of MMO are to study Mercury's magnetic field and plasma environment around Mercury. MMO is designed as a spin-stabilized spacecraft and will be placed in a 400 km x 12000 km polar orbit. Selection of onboard science instruments was finished in last November. The selected science instruments are mostly dedicated to the study of the magnetic field, waves, and particles in the environment of Mercury. In order to maximize science return with limited resources, the instruments are planned to share common function and resources (CPU boards and power supply units).