

## **BepiColombo - Hermean Environment Instrument Science Operation Planning**

*Helen Middleton, European Space Agency (ESA) / European Space Astronomy Centre (ESAC), Villanueva de la Cañada, Madrid, Spain; and the BepiColombo SGS*

BepiColombo is a dual spacecraft mission to Mercury by JAXA and ESA. The BepiColombo Science Ground Segment (SGS), based at ESAC in Madrid are responsible for the MPO science planning. Eleven separate instruments or instrument suites, a total of 17 sensors, plus the harsh environment, mean that science operations planning will be a complex task. The SGS have already started gathering science operations information and requirements from the instrument teams, using Liaison Scientists, in order to design a flexible system. This system will need to ensure as many mission science goals (collaborative and individual) are achieved as possible, and also quickly adapt to new knowledge about the instruments and the environment, failed operations or changing conditions. At present there is one Liaison Scientist for the instruments most closely connected with the exosphere and magnetosphere observations and studies. This section of instruments do not have as clear an operations plan as the surface imaging instruments as the events they wish to capture are much more unpredictable. This poster will explain the approach to planning and the specifications of the mission and how these relate to environment science planning.