



## SYMETRIE ON BEPICOLOMBO !



**SYMETRIE** has been chosen by the Institute of Spatial Astrophysics to realize a high accuracy positioning system to **qualify the SIMBIO-SYS optical instrument**.

The system, which consists of a hexapod and a goniometer, will be settled in a **vacuum vessel**.

The SIMBIO-SYS instrument is settled on a satellite, which will set off with the BepiColombo mission of the ESA (European Space Agency) in 2014. BepiColombo will explore Mercury, the closest planet to the Sun.

## HIGH ACCURACY POSITIONING 5 AXES SYSTEM

**SYMETRIE** delivered a **high accuracy** positioning system to the Applied Optics Laboratory of ENSTA (graduate school of advanced techniques).

This **compact system** realizes 100 mm travel ranges in a volume smaller than a 300 mm cube. It is constituted by **5 serial axes**: 3 linear axes and 2 rotary axes, one of them featuring continuous rotation.

It positions a sample with a **5 µm precision** in front of a laser beam in **vacuum ( $10^{-6}$  mbar)**.



## NEW PRODUCT : BORA, MINIATURE HEXAPOD



To extend its range of positioning systems, **SYMETRIE** developed the **miniature hexapod BORA**, with outstanding characteristics for its size. It can position a 10 kg payload with a **0.1 µm resolution** and a **10 N/µm stiffness**.

**BORA's** excellent features make it adequate for the most demanding high tech applications. Its dimensions enable its integration in a limited space, for example on top of a goniometer on a synchrotron beam line.

Created in 2001, **SYMETRIE** designs and manufactures high precision mechanical systems for key industrialists and research laboratories. **SYMETRIE** has a significant experience in large scale technological projects.