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Proceedings of the 2nd CHRIS/Proba Workshop

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ESRIN, Frascati, Italy*

**European Space Agency
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2nd ESA CHRIS/Proba Workshop
on the Exploitation of Data Products
from the Compact High Resolution Imaging Spectrometer on board ESA's Proba
Satellite

28 - 30 April 2004

ESRIN
Frascati, Italy

INTRODUCTION

Proba (Project for On-Board Autonomy) satellite was launched in October 2001 as a technology demonstrator for onboard operational autonomy, for new spacecraft technology both hardware and software, and to test Earth observation and space environment instruments in space. The instrument payload includes a Compact High Resolution Imaging Spectrometer (CHRIS), a radiation measurement sensor (SREM), a debris measurement sensor (DEBIE), high resolution and wide angle Earth pointing cameras, a star tracker and gyroscopes.

After the one-year of operations as technology demonstration mission Proba had its lifetime extended as an Earth Observation mission providing the scientific community with unprecedented and innovative satellite hyperspectral multi-angular CHRIS data. The CHRIS instrument provides Earth surface reflectance data in the visible/near infrared, at high spatial and spectral resolution, and by using Proba's pointing capabilities collects Bi-directional Reflectance Distribution Function (BRDF) data for selected test sites on the Earth's surface with a wide range of different viewing configurations.

Following the workshop in April 2003 and after a successful year of CHRIS/Proba exploitation in 2003, it has been decided to invite all principal investigators, selected through ESA's announcement of opportunity, to a second workshop to present the results of their analysis of 2002 and 2003 acquisitions and their plans for 2004. The workshop is also open to all parties interested in the CHRIS/Proba achievements.

The CHRIS/Proba workshop represents a major opportunity for the user community to present scientific results obtained using CHRIS data for atmospheric, land and coastal studies. Contributions that discuss the performance of the satellite and the quality of its data products are also welcome. The workshop will be organised around a single stream of plenary sessions with oral presentations providing a forum for:

- Assessment of satellite performance and data quality;
- Scientific exchange on results achieved with CHRIS data in various application areas;
- Presentation of future CHRIS/Proba data exploitation projects;
- Review of individual projects for final definition of the 2004 CHRIS acquisition plan.