Session 1 - CHRIS Geometric & Atmospheric Correction

Summary

Dr Mike Cutter
Range of papers

- Data Products Updates
  - CHRIS Data Products - latest status. Mike Cutter

- Signal & noise assessment studies
  - Quality and Information Content of CHRIS Hyper-Spectral Data. Bruno Aiazzi
  - CHRIS performance evaluation: signal-to-noise ratio, instrument efficiency and data quality from acquisitions over San Rossore (Italy) forestry test site Paolo Marcoionni

- Geometric studies
  - Advances and limitations in a parametric geometric correction of CHRIS/PROBA data. Luis Alonso
  - Geometric correction of CHRIS PROBA data. Stephane Mbaye

- Data retrieval (geometric & atmospheric correction)
  - Geometric and radiometric pre-processing of CHRIS/Proba data over mountainous terrain. Mathius Kneubuhler
  - Methods for the surface reflectance retrieval from CHRIS/PROBA data over land and inland waters. Luis Guanter
  - Atmospheric effects correction of CHRIS data acquired over San Rossore for their assimilation in bio-chemical models. Alessandro Barducci

- Miscellaneous
  - Cloud masking scheme based on textural, morphological, and physical features. Javier Calpe
  - Exploitation of PROBA CHRIS/HRC data in the context of the International Charter "Space and Major Disasters". Francesco Sarti

What “observations” can we draw? ➔
“Observations” – calibration aspects

Calibration aspects

- New calibrated data provided but this may not solve all issues at the ends of the spectrum
- Suggest that PIs undertaking ground validation campaigns should forward results so that they can be collated and made available to the CHRIS community.

![Graph showing calibration coefficients against wavelength]
“Observations” – Data retrieval

- Geometric aspects
  - Updated understanding of observation geometry has been reported
  - HDF files now provide observation angles
  - Some issues raised by Luis Alonso re-PROBA auxiliary data, this now appears to be understood

- Atmospheric modelling
  - A range of approaches are being adopted by different groups, with some groups more advanced than others
  - In some applications, particularly, coastal and inland water, good atmospheric correction is important re-for instance, adjacency effects
  - Suggest that some form of portal is established where the different tools being used is made known to PIs