

## GOME WAVELENGTH CALIBRATION USING SOLAR AND ATMOSPHERIC SPECTRA

C. Caspar and K. Chance

Spectral information in both GOME solar spectra and GOME radiance spectra is used in conjunction with solar and atmospheric absorption reference spectra to provide internal wavelength calibration for GOME. The algorithm for determining wavelength calibration uses chi-square minimisation of a merit function involving wavelength and the GOME slit function. It is quite robust, requires little GOME data in the processing (calibration window regions with from 15 to 50 pixels), and provides absolute wavelength calibration to a small fraction of a GOME pixel across the entire GOME spectrum. Preliminary work involving cross-correlation between GOME radiance measurements and reference spectra, which may lead to further improvements in absolute wavelength calibration, will also be described.

Keywords: ESA European Space Agency - Agence spatiale europeenne, observation de la terre, earth observation, satellite remote sensing, teledetection, geophysique, altimetrie, radar, chimique atmospherique, geophysics, altimetry, radar, atmospheric chemistry