

## ***A clear sky radiative transfer model for MTG-IRS***

**Stephen Tjemkes, Jochen Grandell and Rolf Stuhlmann**

In support of the development of an end-to-end processing chain for METEOSAT Third Generation Infrared Sounder (MTG-IRS) candidate mission EUMETSAT has procured the radiative transfer model based on the Optimal Spectral Sampling (OSS) method from Atmospheric and Environmental Research, Inc. To build confidence in this radiative transfer code, a comparison has been performed involving results generated by OSS and results generated by LBLRTM for real IASI observations, and for MTG-IRS simulations for a number of atmospheric clear sky conditions. In addition to results for the upwelling radiance at top of the atmosphere, also jacobians for a number of state variables are included in the comparison.

INTERNATIONAL  
**ATOVS**  
WORKING GROUP

*Proceedings of the  
Sixteenth International  
TOVS Study Conference*

Angra dos Reis, Brazil

7-13 May 2008

Sharing ideas, plans and  
techniques to study  
the earth's weather and climate  
using space-based observations

