Working Group UV

Co-Chairs : Mario Blumthaler and Julian Gröbner

I. Current Status

The working group will focus on measurements and analyses of ground-based solar ultraviolet radiation, whereas space-based solar UV research would exceed the objectives of the WG. Overall, we will

- support the scientific objectives of the working group, such as
    - activities aiming at obtaining a high resolution extraterrestrial solar spectrum for ground-based studies,
    - Addressing limitations in the retrieval of spectral aerosol optical depth in the UV,
- support and promote activities which aim at improving solar UV measurements in view of reducing the current uncertainties to a level which would allow detecting long term changes on decadal time scales.

II. Research Results

Research results will be presented at the IRS2012 in the special UV session with 26 oral presentations (due to time limitations at the conference, 7 oral presentations had to be changed to poster presentations) and 37 posters.

III. Recommendations.

An initiative was started by R. McKenzie from New Zealand to standardise the terms used in Photobiology for biologically weighted quantities, especially for radiation effective to produce Vitamin D. The newly defined terms should be in analogy to the existing terminology for the erythema reaction but take into account the specific differences. This suggestion for standardisation will be supported by CIE and WMO.

IV. Plans

The European Metrology Research programme (EMRP) has funded the three-year project ENV03 “Traceability for spectral surface solar UV radiation” with partners from European Metrology Institutes and the UV research community. Coordinator of the project is Julian Gröbner, and the project started in August 2011. It will develop measurement capabilities and devices to significantly decrease the uncertainties of spectral solar UV measurements. This project will provide a framework in which some of the WG objectives will be pursued.

Specific plans are to organise a UV Session at DACA 13 in Davos.