



Palermo|Italy|12th.15thJune2018



Call For Papers

SPECIAL SESSION

ENGINEERING SOLUTIONS FOR THE ASSESSMENT OF PHOTOBIOLOGICAL RISK FROM UV RADIATION

Organized and co-chaired by: Dr. Massimo Borra, Department of Occupational and Environmental Medicine, Italian Workers' Compensation Authority (INAIL), and Prof. Fabio Bisegna, Sapienza University of Rome (Italy)

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Objective and topics: The UV radiation represents a risk factor for humans, since it is responsible of several harmful effects to skin and eyes. The International Agency for Research on Cancer (IARC) classifies the solar spectrum as a whole and the individual spectral bands as "carcinogenic to humans" (group 1 of the IARC evaluation of the carcinogenic evidence). The International Commission on Non Ionizing Radiation Protection (ICNIRP) adopted a single action spectrum referred to both ocular and skin effects (erythema, photokeratitis and photoconjunctivitis) in order to derive effective radiometric units (effective irradiance, effective dose, etc.) and set up exposure limits for both eye and skin.

The photobiological risk assessment requires measurement tools and procedures often not accessible to the general public. Nevertheless, the engineering research provided miniaturized electronic systems, innovative materials, advanced tools and algorithms that may be used for assessing the photobiological risk or protecting tissues from photobiological damage. The purpose of this Special Session is to present innovative applications of these engineering solutions that maybe easily adopted by the general public for the protection from UV radiation hazards.

The SS calls for papers focused on (but not limited to):

- Innovative tools for the assessment of UV radiation
- Techniques for the measurement of coherent and incoherent optical radiation
- Engineering solutions for the prevention of photobiological damage
- Methods in photobiological risk assessments
- Proposals for the protection of photosensitive tissues

All the instructions for paper submission are included in the conference website:

<https://www.eeeic.net/eeeic/>