

## **The 2nd International CIE/ICNIRP tutorial & symposium “Measurement of Optical Radiation and Impact on Photobiological Systems”.**

### **August 25 - 26, Tutorial on methods and principles to quantify Optical Radiation for photobiological systems and responses: photobiological assessments, radiation measurements and their uncertainties**

Invited experts from around the world will present lectures during a 2-day tutorial programme that will cover fundamental concepts relating to measurement of optical radiation hazards and evaluating their measurement uncertainties. The preliminary programme includes the following topics (note: subject to change):

- Basics of photobiological effects
- Fundamentals of measurement, terms, units, action spectra
- Introduction to ICNIRP exposure limits
- Fundamentals of measurement uncertainty
- Types of detectors and detector technologies
- Types of spectrometers, their characterization, calibration and main sources of error
- Other types of testing and measurement equipment
- Calibrations and traceability
- What are action spectra and how are they measured?
- Worked example of measurements to IEC 62471
- Update on the revision of IEC 62471
- Use and characterisation of wearable light sensors
- Circadian effects of short visible wavelength radiation
- Health and safety aspects of optical radiation
- Metrology to quantify radiation for photobiological responses
- Impact of (obtrusive) light on species, ecosystems and the environment
- Reporting and communicating measurement results

The expert speakers include (subject to change):

- Peter Blattner (CH)
- Luc Schlangen (NL)
- Tony Bergen (AU)
- John O’Hagan (UK)
- Sharon Miller (US)
- Nigel Cridland (UK)
- Anders Thorseth (DK)
- David Sliney (USA)

### **August 27, Symposium on the Measurement of Optical Radiation and its impact on Photobiological Systems.**

The symposium will feature oral and poster presentations on topics related to the measurement of optical radiation measurement and the impact of optical radiation on photobiological systems. The [call for abstracts](#) (for oral and poster presentations) includes the following fields:

- Optical radiation hazards from consumer products and light sources.
- Optical radiation measurement for the evaluation of photobiological effects (broadband, spectral, temporal, spatial,...).
- Determination and application of photobiological action spectra (e.g. ultraviolet disinfection, horticultural, Vit-D, erythematous, impact on materials, etc).
- Health benefits, safety aspects and risks of optical radiation (including visual perception/comfort, circadian and non-visual effects, ocular health/degradation).
- Impact of obtrusive light on environmental systems (flora and fauna etc.)