The session will deal with the development of miniaturized analytical systems and devices exploiting luminescence-based detection for point-of-care testing, or more in general point-of-use testing. Lab-on-chip, paper-based analytical devices (µPAD), lateral-flow assays, microfluidics devices, micro flow injection and microchip capillary electrophoresis systems integrating different luminescence detection principles (i.e., fluorescence, chemiluminescence, electrogenerated chemiluminescence, bioluminescence and thermochemiluminescence) will be considered. Contributions dealing with recent advancements concerning technological challenges, (e.g., new devices, on-chip integration of all the analytical steps and device components, high throughput analysis devices, smartphone-based devices, bipolar electrochemiluminescent devices, 3D printing devices, optical fiber sensors) and analytical approaches for improving assay performance (e.g., luminescence resonance energy transfer-based detection, assays exploiting multifunctional (nano)materials, innovative labelling strategies and biospecific recognition elements) will be particularly encouraged.

**KEYWORDS**
- Biosensor, Point-of-care, Microfluidics, Lab-on-chip, Luminescence