
Optical Diagnostics and Sensing XIX: Toward Point-of-Care Diagnostics

Monday - Tuesday 4 - 5 February 2019

This conference is no longer accepting submissions.Late submissions may be considered subject to chair approval. For more information, please contact [Stephanie Kaiser](#).

Important Dates

[SHOW](#) | [HIDE](#)Abstract Due:
25 July 2018Author Notification:
1 October 2018Manuscript Due Date:
11 January 2019

Conference Committee

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Call for Papers

The focus of this conference will be on invasive and noninvasive optical methods for the diagnostics and sensing of all types of biological fluids: blood, lymph, saliva, mucus, gastric juice, urine, aqueous humor, semen, etc. both in vitro and in vivo with, for example, point-of-care microfluidic technologies, mobile technology platforms such as cell phones and tablets, and/or wearable photonic technologies.

The techniques to monitor the fluids and optical properties of these fluids will be discussed including: elastic, quasi-elastic, and inelastic (Raman) light scattering, surface enhanced Raman (SERS) techniques, Doppler flowmetry, spectrophotometry, polarimetry, diffraction, holography, speckle, fluorescence, imaging, and related spectroscopic and microscopic techniques. Studies of biological fluid components on cellular and macromolecular levels, as well as nondestructive measurements of analyte content, will be presented. Theoretical and model studies, as well as clinical applications of the developed optical methods and instrumentation, will be outlined. Diagnostics and sensing systems for point-of-care and global health applications are particularly encouraged.

Suggested topics include, but are not limited to, the following areas:

- wearable photonic technologies
 - mobile technology platforms
 - point-of-care diagnostic and sensing systems
 - global health diagnostics and sensing systems
 - in-home diagnostics and monitoring systems
 - glucose monitoring approaches
 - analyte monitoring in vivo and in vitro
 - biological fluid spectroscopy and imaging
 - local flow velocity measurement
 - blood microcirculation and tissue perfusion monitoring
 - blood cell and macromolecular interaction and aggregation sensing
 - blood cell deformation, orientation, diffusion, and sedimentation imaging
 - fluid viscosity measurement
 - effects of physical and chemical factors on fluid composition, rheological, and other properties
 - disease diagnostic potential of optical techniques.
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