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Транслитерация по BSI



### Single-Molecule Sensors and NanoSystems International Conference

Germany, Munich

April 3–5, 2019

Sensor systems have emerged that exhibit extraordinary sensitivity for detecting physical, chemical, and biological entities at the micro/nanoscale. Particularly exciting is the detection and analysis of molecules on miniature devices that have many possible applications in health, environment, analysis, and security. A new class of label-free micro and nanosensors are starting to emerge that allow us to observe dynamic processes at the single molecule level directly, with unprecedented spatial- and temporal resolution and without significantly affecting the natural and functional movements of the molecules. Micro- and nanosensors by virtue of their small interaction length probe molecules over a dynamic range often inaccessible by other techniques. Their small size enables an exceedingly high sensitivity, and the application of quantum optical measurement techniques can allow us to approach or surpass classical limits of detection. Advances in optical and electrical measurement methodology, laser interferometry, quantum optics, micro/nanofluidics, control of molecules and reactions at the nanoscale, DNA origami/synthetic molecular machines, in-vivo and wearable sensing materials, they all contribute to the rapid progress of the field of Single Molecule Sensors and nanoSystems. It is this convergence of previously often disparate fields that is accelerating the advancements in micro and nano-sensing.

This conference will bring together researchers in the rapidly advancing field of Single Molecule Sensors and nanoSystems. The conference focuses on the most recent advances in micro and nano-sensing techniques that have either demonstrated single-molecule detection or that claim single-molecule detection capability on sensor chips in the longer term.

#### Topics

Single-Molecule Devices and Sensor Technologies  
 Single-Molecule Spectroscopy  
 Quantum Limits in Biodetection  
 Biophotons and Biophotonics Sensors  
 Molecular Machines, Synthetic Biology and DNA Origami  
 In-vivo and wearable Sensor Devices, Materials and Systems  
 Integrated Sensor Chips and multiplexed Sensing  
 Modelling and Analysis of Sensors and Systems  
 Micro/Nanofluidics and chemical control at the Nanoscale  
 Commercial Single-molecule Sensors and Sequencers

#### Deadlines

Regular Submission - January 22nd, 2019  
 Regular Registration - February 22nd, 2019  
 Conference - April 3-5, 2019

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