

Biophysical Society 69th Annual Meeting
Nanoscale Approaches to Biology Subgroup Symposium
Saturday February 15, 2025
Los Angeles, California

Subgroup Chair: Fang Huang, Purdue University, USA

Symposium Time: 8:30 AM-12:30 PM PST

Symposium Room: 502A

Subgroup Business Meeting: 12:25 PM

8:30 AM Opening Remarks

8:35 AM Amit Meller, Technion - Israel Institute of Technology, Israel

Separating and Fingerprinting Full-Length Proteins in Silicon Nano-Channels, One Molecule at the Time

9:00 AM Christopher Obara, UCSD, USA

Integrating Dynamic and Cryogenic Imaging Technologies to Map the Landscape of Organelle Membranes

9:25 AM Student/Postdoc Talk: Yuya Nakatani *Simplified Whole-Cell Single-Molecule Super-Resolution imaging in 3D with Long Axial-Range Double-Helix Point Spread Functions*

9:35 AM Flash Talk: Sheng Liu *Optimal Separation Measurement for Two Freely Rotating Dipole Emitters*

9:45 AM Break

10:00 AM Luke Lavis, Janelia Research Campus, USA

Building Brighter Fluorophores for Single-Molecule Imaging and Beyond

10:25 AM Sandrine Lévêque-Fort, ISMO-CNRS-Université Paris Saclay, France

In Depth 3D Single Molecule Localization Microscopy of Multiple Targets with Time Modulated Illumination

10:50 AM Maria Spies, The University of Iowa, USA

Configurational Dynamics of the Replication Protein A in Cellular Decision Making

11:15 PM Break

11:30 AM Student/Postdoc Talk: Cheng Bi *SPTNET: A Deep Learning Based Framework for End-To-End Single Particle Tracking and Motion Dynamics Analysis*

11:40 AM Student/Postdoc Talk: Kei Yamamoto *Optical Control of Actin Polymerization on the Supported Lipid Bilayer*

11:50 AM Alastair Boettiger, Stanford University, USA

Imaging the Genome in Motion

12:25 PM Business Meeting

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