
Recent developments in Brillouin microscopy at SIOM

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Brillouin microscopy has emerged as a promising tool for three-dimensional, non-contact, high-resolution mechanical imaging. However, despite decades of development, low throughput remains a major challenge. In this presentation, I will introduce our recent advancements in significantly reducing pixel dwell time while maintaining high spatial resolution, Brillouin precision, and spectral specificity. Moreover, I will present several biological applications enabled by our optimized Brillouin microscope.

Short Bio:



Fan Yang is a group leader at the Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences. He received his bachelor's and master's degrees from Huazhong University of Science and Technology, and obtained his PhD in fiber optics in Prof. Wei Jin's group at the Hong Kong Polytechnic University. He then undertook postdoc training on Brillouin scattering in Prof. Luc Thévenaz's group at the Swiss Federal Institute of Technology Lausanne (2017-2020) and furthered his research in biophotonics and Brillouin microscopy in Dr. Robert Prevedel's group at the European Molecular Biology Laboratory (2020-2023). In January 2023, Dr. Yang joined SIOM, where he leads a research group dedicated to advancing high-performance Brillouin microscopy and exploring its applications in biomedical research.