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Emerging Topics in Optics

**ORGANIZERS**

Eric Bonnetier, Université Grenoble-Alpes
Michal Lipson, Columbia University
Di Liu, Michigan State University
Michael Weinstein, Columbia University

Optics and Photonics (O&P) is a dynamic field spanning from fundamental and applied physics to device design and engineering, in which a wide range of mathematical areas play an important role. In addition to the novelty and the breadth of applications of O&P, these areas have proven to be a source of new directions in mathematical modeling, analysis, and computation. Furthermore, major advances in nano-fabrication methods allow the controlled design of composite structures with radically new properties. This has led to the physical realization of theoretically predicted exotic phenomena, such as superlensing and cloaking, and the potential for their use in technologies. This workshop will comprise of lectures by and opportunities for interaction among mathematicians, physicist, and engineers on modeling and computation in nano-optics, meta-materials, and other areas of O&P, as well as their applications to, for example, nano-optical-mechanical systems, neuro-science, energy, and information storage and processing. The workshop will seek to identify opportunities for mathematicians and scientists in these fields to collaborate and contribute to these exciting areas.

**SPKERS**

Hiroshi Ajiki, Tokyo Denki University
Dmitri Basov, Columbia University
Anne-Sophie Bonnet-BenDhia, Centre National de la Recherche Scientifique (CNRS)
Guy Bouchitte, Université de Toulon et du Var
Remi Carminati, ESPCI ParisTech
Charles Dapogny, Université Grenoble-Alpes
Avik Dutt, Columbia University
Guanghui Hu, University of Macau
Steven Johnson, Massachusetts Institute of Technology
Hyeonbae Kang, Inha University
Lin Lin, University of California, Berkeley
Robert Lipton, Louisiana State University
Songting Luo, Iowa State University
Florian Marquardt, Friedrich-Alexander-Universität Erlangen-Nürnberg
Braxton Osting, University of Utah
Mikael Rechtsman, The Pennsylvania State University
George Schatz, Northwestern University
Stephen Shipman, Louisiana State University
Marin Soljačić, Massachusetts Institute of Technology
Chao Yang, Lawrence Berkeley National Laboratory