Postdoctoral Research Opening
in
Opto-Mechano-Fluidics and Nonreciprocal Optomechanics

Bahl Research Group
Mechanical Science and Engineering
University of Illinois at Urbana-Champaign
http://bahl.mechse.illinois.edu

Prof. Gaurav Bahl’s group has an opening for a postdoctoral researcher to conduct experimental and theoretical research in the fields of microcavity optomechanics and opto-mechano-fluidics. This position is available immediately, but the starting date can be delayed for an ideal candidate.

The planned research topics are focused on our team’s recent work on opto-mechano-fluidic sensors (Nature Communications 4:1994, 2013) and on our work with nonreciprocal optomechanical systems (Nature Physics 11, pp.275-280, 2015).

Ideal candidates will have expertise in the following areas:
- Micro/nano-fabrication
  (lithography, etching, deposition, characterization, etc.)
- Design and fabrication of photonic crystals
  (especially high-Q photonic crystal resonators)
- Experimental and theoretical background in nonlinear optics

Experience with a cross-section of the following topics would be highly valued:
- Cavity optomechanics - Optical biodetection
- Microfluidic devices - Phononic crystals and resonators
- Vacuum systems - MEMS/NEMS device design
- Optical spectroscopy - Quantum optics

The selected candidate will be given opportunities to develop their skills in mentorship of graduate students, proposal writing, teaching and educational outreach, and in developing their own research program. Please see our website (listed above) for representative work on both research and outreach.

Applying
Interested candidates should contact Prof. Gaurav Bahl (bahl@illinois.edu) with
(1) their complete CV,
(2) a short paragraph on their background and suitability for this position,
(3) contact information for at least two references, and
(4) their date of availability for the position.