

Graduate / Postdoctoral Researcher Openings in Photonics and Topological Insulator Metamaterials

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Topic 1: Topological insulator metamaterials

Our group is seeking researchers for conducting experimental research on electronic topological insulator metamaterials. Practical experience with RF / microwave circuits is highly desirable, and familiarity with digital and mixed-signal systems would be a plus. General academic interest in quantum mechanics and fundamental physics is appreciated.

The research project is closely related to the following recent papers from our group --

<https://www.nature.com/articles/s41586-020-03117-3>
<https://science.sciencemag.org/content/368/6495/1114>
<https://www.nature.com/articles/nature25777>
<http://advances.sciencemag.org/content/4/6/eaat0232>

Topic 2: Nonreciprocal photonics

Our group is seeking researchers for conducting experimental research on nonreciprocal optical physics. Candidates should have experience and interest in either integrated photonics or fiber photonics. Direct experience with nanofabrication (lithium niobate) and a background in acousto-optics or nonlinear optics would be very beneficial.

The research project is closely related to the following recent papers from our group --

<https://arxiv.org/abs/2104.04803>
<https://www.nature.com/articles/s41566-017-0075-2>
<https://www.osapublishing.org/optica/abstract.cfm?uri=optica-6-8-1016>
<https://www.nature.com/articles/s41467-017-00247-7>

Timeline and application

Both of the above positions are available beginning immediately. Interested candidates should contact Prof. Gaurav Bahl with a complete CV, accompanied by a short paragraph highlighting relevant practical experience. Women and students from minority backgrounds are encouraged to apply.