

Colloquium Notice

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Topological Amplification in Photonic Lattices

Directional amplification of light in non-reciprocal photonic systems is an exciting effect with applications in measurements of weak signals and quantum information processing. Here we examine this effect from the point of view of topology. We show that there is a correspondence between directional amplification and the existence of a topological non-trivial phase that is the photonic analogous of a topological insulator. This surprising connection will allow us to use topological band theory to predict the performance of quantum amplifiers and sensors based on the symmetries of the underlying photonic lattice.

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Attending this Meeting:

Topic: Queens College Physics Colloquium
Time: Nov 23, 2020 12:15 PM Eastern Time (US and Canada)

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Monday
November 23, 2020
Starts at **12:15 pm**
Physics Conference Room, SB B326