Mikael Rechtsman

Title: Photonic Landau levels

Abstract: Breaking Lorentz reciprocity (or time-reversal symmetry)
strongly is hard for photons because they don’t carry charge and
therefore don’t respond directly to an external magnetic field.  Here,
I’ll present our experimental results on how straining a photonic
crystal with a Dirac point generates an artificial magnetic field, and
we directly observe Landau levels as a result.  Adding another kind of
strain, corresponding to a pseudoelectric field, can remove the
dispersion of the Landau levels, making them flat bands.