

**Horia Cornean** (Aalborg University):

## **Parseval frames of exponentially localized magnetic Wannier functions**

Motivated by the analysis of gapped periodic quantum systems in presence of a uniform magnetic field in dimension  $d \leq 3$ , we study the possibility to construct spanning sets of exponentially localized (generalized) Wannier functions for the space of occupied states. Our results are illustrated in crystalline insulators modelled by 2d discrete Hofstadter-like Hamiltonians, but apply to certain continuous models of magnetic Schrödinger operators as well. This is joint work with Domenico Monaco (Sapienza) and Massimo Moscolari (Aalborg), *Commun. Math. Phys.* **371**(3), 1179-1230 (2019).