Contribution ID: **295** Type: **Talk**

【144】Multicellularity of delicate topological insulators

Thursday, 2 September 2021 15:30 (15 minutes)

We enrich the notions of stable and fragile topology by introducing *delicate* topological insulators: band structures possessing topological invariants that can be trivialized through an addition of a trivial conduction band. We find that although delicate topological insulators are Wannier representable with exponentially-localized symmetry-preserving Wannier functions, they can possess a different type of obstruction to an atomic limit. Namely, impossibility to localize all Wannier functions to one unit cell, i.e. *multicellularity*. In this talk, I will explain the concepts of delicacy and multicellularity on a toy-example and discuss their observable consequences.

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Session Classification: Condensed Matter Physics

Track Classification: Condensed Matter Physics (KOND)