

**EXPLORING TOPOLOGICAL QUANTUM PHASE TRANSITIONS
WITH APPLIED PRESSURE**

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A great deal of high pressure work has been dedicated to exploring quantum phase transitions of symmetry broken phases. More recently, increasing attention has been devoted to a new type of quantum phase transition, where the transition is between topologically distinct phases. In this talk, I will present the results of high pressure measurements of Shubnikov de-Haas oscillations in materials, such as BiTeI and $\text{Pb}_{1-x}\text{Sn}_x\text{Se}$, that are expected to undergo pressure-induced topological transitions. One limitation of these measurements is that the information that they provide is restricted primarily to the Fermi level. I will discuss some of our efforts to overcome this limitation through high pressure spectroscopic measurements of the Landau levels.

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