

國立中山大學物理系111學年度第二學期專題演講

# SEMINAR ANNOUNCEMENT

## Novel topological materials: a first-principles study

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### Abstract

Recently, topological materials have gained importance in material science and condensed matter physics because of their unique electronic, thermal dynamic, magnetic and non-trivial topological properties. In addition, topological materials can improve the efficiency of technological devices due to their electronic properties allowing more control over them than the conventional ones. They are also good candidate materials for quantum computing. Thus, discovering new materials that possess these characteristics is crucial for future technological development. In this talk, I am going to show you the search for new topological materials through first-principles calculations via density functional theory. Such approaches include functionalization by hydrogenation, layer dependence, and high throughput methods in exploring new topological materials.

**Time:** Feb. 16, Thu. 15:10

**Online Talk:** <https://meet.google.com/iot-zabw-hkr>