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Abstract for an Invited Paper
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Oliver E. Buckley Condensed Matter Prize Lecture: Topological insulators and superconductors¹

SHOUCHENG ZHANG, Stanford University

In this talk I shall briefly review the basic concepts of topological insulators and superconductors, and recall the history of the discovery of the first topological insulator in nature, the HgTe material. I will then describe some striking physical properties of topological insulators and their possible applications.

X. L. Qi, S. C. Zhang, Phys. Today 63, 33 (2010).

X. L. Qi, S. C. Zhang, Rev. Mod. Phys. 83, 1057 (2011).

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