

Topological superconductivity and Majorana fermions

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In this talk, I will give a general introduction to topological superconductivity and Majorana fermions [1], and present our discovery of nematic topological superconductors associated with helical Majorana fermions. In addition, I will briefly introduce the concept of topological quantum computing based on the non-Abelian statistics of localized Majorana zero modes.

[1] M. Sato and Y. Ando, Rep. Prog. Phys. 80, 076501 (2017).