

Finding exotic superconducting pairing in topological semimetals

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We explore the possibility of exotic superconducting pairing in topological semimetals. The topology and the associated symmetries of the semimetals result in a unique electronic band structure, which affects the superconducting gap structure and pair amplitude. In addition to the conventional spin-singlet even-frequency pairing it is possible to find odd-frequency spin-triplet pairing and also pairing with higher intrinsic angular momentum. We also investigate possible experimental probes which can distinguish the signatures of the exotic pairing.