

Abstract Submitted  
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**Characterization of Topological Superconductivity in Weyl Semimetals** YI LI, Johns Hopkins Univ — Novel topological superconducting pairing symmetry has been proposed in doped time-reversal breaking Weyl semimetals, where the Berry phase of Cooper pairing states between two Fermi surfaces with opposite Chern numbers gives rise to new pairing symmetry characterized by monopole harmonics. By comparing this novel pairing symmetry with familiar examples of unconventional superconductivity, we reveal exotic properties originating from topologically-protected nodal structures of its gap function, and propose possible detections of this novel superconducting pairing symmetry.

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