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Microscopic theories for Cubic and Tetrahedral Superconductors[1]
SHANTANU MUKHERJEE, DANIEL AGTERBERG, University of Wisconsin-Milwaukee — We will examine the weak coupling theory for the unconventional superconducting states of cubic or tetrahedral superconductors for arbitrary order parameters and Fermi surfaces in zero applied magnetic fields. We will also look at multiple transitions where a higher symmetry is weakly broken to account for them. We will then perform a weak coupling theory where two representations of the symmetry group have accidentally nearly degenerate transition temperatures.

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