Title:	Pairing symmetries in the zeeman-coupled extended attractive hubbard model.
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Keywords:	Electronic properties and materials Superconducting properties and materials
Issue Date:	2021
Citation:	Scientific Reports, 11(1).
Abstract:	By introducing the possibility of equal- and opposite-spin pairings concurrently, we show that the ground state of the extended attractive Hubbard model (EAHM) exhibits rich phase diagrams with a variety of singlet, triplet, and mixed parity superconducting orders. We study the competition between these superconducting pairing symmetries invoking an unrestricted Hartree–Fock–Bogoliubov–de Gennes (HFBdG) mean-feld approach, and we use the d-vector formalism to characterize the nature of the stabilized superconducting orders. We discover that, while all other types of orders are suppressed, a non-unitary triplet order dominates the phase space in the presence of an in-plane external magnetic feld. We also fnd a transition between a non-unitary to unitary superconducting phase driven by the change in average electron density. Our results serve as a reference for identifying and understanding the nature of superconductivity based on the symmetries of the pairing correlations. The results further highlight that EAHM is a suitable efective model for describing most of the pairing symmetries discovered in diferent materials.
Description:	Only IISER Mohali authors are available in the record.
URI:	https://doi.org/10.1038/s41598-021-02175-5 (https://doi.org/10.1038/s41598-021-02175-5) http://hdl.handle.net/123456789/5212 (http://hdl.handle.net/123456789/5212)
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