



Frontiers in Superconductors without Inversion Symmetry

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Message from the Guest Editor

Dear Colleagues,

The combination of intriguing fundamental physics with far-reaching potential applications has made unconventional superconductors one of the most studied classes of materials. Standing out among them are the noncentrosymmetric superconductors (NCSCs), whose crystal structures lack an inversion symmetry. In NCSCs, the strict symmetry-imposed requirements are relaxed, allowing mixtures of spin-singlet and spin-triplet copper pairing channels. NCSCs' ability to host unconventional- and topological superconductivity, as well as to act as systems to realize the Majorana fermions, have made them one of the most investigated families in recent times. Interestingly, time-reversal symmetry (TRS) breaking has been observed below T_c in certain weakly-correlated NCSCs using mostly muon-spin relaxation techniques. However, the causes behind TRS breaking in these superconductors are not yet fully understood and remain an intriguing open question. This Special Issue will collect new experimental and theoretical results, as well as overviews, generalizations, and analyses of the known facts, facilitating a deeper understanding of NCSCs from a wide perspective.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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