



symmetry



Special Issue Reprint

Chiral Symmetry in Physics

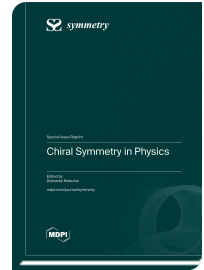
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This Special Issue explores the far-reaching implications of chiral symmetry in modern theoretical physics. It presents seven contributions—five research articles and two reviews—spanning topics from QCD and hadron spectroscopy to nuclear matter and chiral gauge theories. Roberts' work on emergent mass in QCD, Meißner's discovery of two-pole structures, and Rho's insights into chiral-scale symmetry illustrate how symmetry principles govern nuclear and particle phenomena. Blaschke et al. address a model for interpreting lattice QCD thermodynamics of hadron–quark–gluon transitions. Fejős studies the axial anomaly's finite-temperature dependence on both the chiral condensate and mesonic fluctuations. The mini-review by Ma and Rho connects condensed matter analogies with the structure of baryonic matter in compact stars. The final article, by Stöckinger's group, presents a comprehensive and pedagogical treatment of renormalization in chiral gauge theories using dimensional regularization, offering valuable guidance especially for researchers entering the field. Together, these works highlight both conceptual advances and methodological developments, underscoring the unifying role of chiral symmetry across energy scales and physical systems.



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