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New Insights into Metal–Insulator Transitions

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Deadline for manuscript submissions:
closed (20 February 2024)

Message from the Guest Editors

Dear Colleagues,

Metal–insulator transitions (MITs) are one of the most important phenomena in condensed-matter physics. They connect two opposite boundaries: the metallic, where elementary excitations are single particles of a fermionic nature, and insulating, where elementary excitations are collective of a bosonic nature.

MITs have been observed in a variety of materials, with various exotic insulating ground states, including different charge and spin orderings, density waves, Mott insulators, etc. Additionally, interesting is the conducting side of MITs, where deviations from conventional Fermi liquid are often found. The transition between different states can be driven by a change in temperature, pressure, magnetic field, chemical substitution or doping.

The aim of this Special Issue is to report on novel experimental and theoretical findings regarding MITs and related intriguing phenomena, with the potential possibly of ascertaining numerous novel questions and future directions.

Prof. Dr. Emil Tafra
Dr. Matija Čulo
Guest Editors

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Message from the Editor-in-Chief

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Journal Rank: JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

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