



Bethe Colloquium

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Altermagnetism from the Perspective of Symmetry

Altermagnets are collinear compensated magnets whose band structures have a characteristic anisotropic pattern of spin splitting in momentum space. They have attracted the interest of people especially in spintronics for various attractive properties combining features of simple ferromagnets and antiferromagnets. In this talk I introduce altermagnets through their distinctive symmetries. In particular, as they are most cleanly defined in the zero spin-orbit coupled limit, we formulate Landau theories that capture their residual spin-space symmetries and that allows us to perform a complete classification of possible altermagnets and their properties. We further investigate the ties between the ideal spin-orbit free limit and additional properties arising in the presence of a weak spin-orbit coupling.

BCTP, Room W 2.019 - Wegelerstr. 10 - 53115 Bonn

Thursday, January 23, 2025 at 2:00 p.m. (unusual time!)

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