

AIMR AIMR/GP-Spin Seminar 9



November 18 (Tue), 2025, 16:30

Orbitronics 2.0

The past decade has seen orbitronics emerge as a new frontier in condensed matter physics, promising to harness the orbital motion of electrons, much as spintronics exploits their spin. Yet, despite intense activity, the very definition of orbital currents, the microscopic origin of the orbital Hall effect and orbital edge accumulations have remained unsettled. In this talk, I will present a new quantum kinetic theory that puts these questions on firm ground [1, 2].



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[1] T. Valet and R. Raimondi, PRB 111, L041118 (2025).

[2] T. Valet et al., arXiv:2507.06771

Venue: Seminar Room, 2nd floor, AIMR Main Building Katahira Campus, Tohoku University

