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MMQ09 : SpinOrbitronics: From Fundamentals to Devices

Organizers: Jean-Marie George(Laboratoire Albert Fert, Palaiseau), Henri Jaffrès (Laboratoire Albert Fert, Palaiseau) and Paul Noël (IPCMS, Strasbourg) **Invited Speakers:** to be confirmed

Content:

The minicolloquium on spinorbitronics aims to provide a comprehensive overview of present and future spintronics and orbitronics research, covering the fundamental physics underlying spin- and orbital-dependent transport phenomena, materials engineering approaches, and the translation of these concepts into practical device technologies. Participants will explore recent breakthroughs in spin and orbital Hall effects towards spintronic devices, opening new horizons for information processing and sensing. We believe this minicolloquium will serve as a valuable platform for knowledge exchange and networking within the spintronics and orbitronics community.

Key words: Spin Hall effect, Rashba Edelstein effect, Orbital Hall effect, 2D materials, Topological Insulator, spin--charge current inter-conversion