Quantum Materials Seminar
量子物質セミナー

Developing new ways to make and measure quantum materials
量子物質開発と測定技術の新たな展開

January 28 (Tuesday), 2025

Time: 15:00-16:30

Place (hybrid): Lecture Hall, first floor of 2nd. Bldg. Institute for Materials Research &

Online ZOOM meeting

Prof. Yong P. Chen

Karl Lark-Horovitz Professor of Physics and Astronomy, Purdue University, USA
Electrical and Computer Engineering, Purdue University, USA
Director of Purdue Quantum Science and Engineering Institute
Principal Investigator, Materials Physics Group, AIMR, Tohoku University

Yong P. Chen group is interested in developing new ways to make and measure novel quantum materials, particularly in the space of two-dimensional (2D) and topological materials. Recent highlights include the realizations of a metastable “pentagonal” 2D material (made from pentagons as building blocks) [1], and a “Moire magnet” made from twisted 2D antiferromagnets [2]. We apply multi-modal/hybrid measurements (combining electrical transport/devices with optical spectroscopies and scanning probe microscopies) on various 2D/topological materials to reveal their rich properties and functionalities. We further develop new types of spin-sensitive and quantum sensing probes, particularly on exotic “quantum magnets” [3] or “topological superconductors” that may host emergent quasiparticles for quantum information applications.

[1] L.Liu et al., Nature Materials 23, 1305 (2024)
[2] G. Cheng et al. Nature Electronics 6, 434 (2023)
[3] H.Idzuchi et al., arXiv: 2204.03158

このイベントは参加費無料で、どなたでもご参加いただけます。
参加をご希望の方は、直接会場までお越しいただくか、Zoom参加のQRコードからオンラインでご参加ください。

[お問合せ先]　佐々木 孝彦　Email: takahiko.sasaki.d3@tohoku.ac.jp

ZOOM 参加は
こちらから

詳細はこちら
金研ウェブサイト