Progress in 2D Magnetic Phenomena

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via Zoom (click link below to join seminar. Meeting ID: 874-837-760)
URL: https://ntu-sg.zoom.us/j/874837760 Meeting Password: 287362

Since the discovery of two-dimensional van der Waals magnets, the field of studying 2D magnetic phenomena has been rapidly developed. In this talk, I will present our recent progress along this direction. I will firstly discuss the observation of antiferromagnetic exciton and multiple exciton phonon bound states in zigzag antiferromagnet NiPS3. I will then discuss the emergent orbital ferromagnetism in twisted monolayer-bilayer graphene. The ferromagnetism occurs at one-quarter filling of the conduction band, with a large associated anomalous Hall effect. Uniquely, the magnetization direction can be switched purely with electrostatic doping at zero magnetic field.

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