

北京大学量子材料科学中

Seminar

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Time: 10:00am, Aug. 30, 2017 (Wednesday)

2017 8 30 10:00

Venue: Room W563, Physics building, Peking University

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magr and operate that is capa different ma antiferroma synchrotron kiloelectron elements in ferromagne of X-rays synchrotron dynamics w The goal o microscopy followed by a set of examples,

hich is becoming

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ic device technology is based on complex magnetic alloys or multilayers that are patterned at the nanoscale gahertz frequencies. To better understand the behavior of such devices one needs an experimental approach detecting magnetization with nanometer and picosecond sensitivity. In addition, since devices contain nents, a technique is needed that provides element-specific information about not only ferromagnetic but erials as well. Synchrotron based X-ray microscopy provides exactly these capabilities because a unable and fully polarized X-rays with energies between several tens of electron volts up to tens of teraction of tunable X-rays with matter is element-specific, allowing us to separately address different e polarization dependence or dichroism of the X-ray interaction provides a path to measure a ent an its orientation or determine the orientation of the spin axis in an antiferromagnet. The wavelength rs, which enables microscopy with nanometer spatial resolution. And finally, a he order nanon pulsed X-ray th a pulse length of tens of picoseconds, which enables us to study magnetization ourc time resolution giv the X-ray pulse length in a pump-probe fashion. is talk is to pro

ntroduction to the field and explain the capabilities of synchrotron based X-ray ailable at every synchrotron, to a diverse audience. The general introduction will be g on the audience, that may include properties of magnetic 1001261.1722milk