

講演会のお知らせ

講演者: **Dr. András Kovács**

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7月15日(木)(July 15, Thursday) 16:00-
3号館6階セミナー室 (Seminar Room, 3-601, 6F)

ADVANCED ELECTRON MICROSCOPY OF MAGNETIC SEMICONDUCTORS

In the presentation latest results of magnetic semiconductor nanostructures will be presented. Transition metal doped arsenide, oxide and nitride semiconductors can show room temperature ferromagnetism (FM) in a class of materials known as dilute magnetic semiconductors. The FM results from the presence of either nanoscale clusters of magnetic atoms or randomly located diluted transition metal impurities or defects. We used several advanced TEM techniques to study the structures, chemical compositions and magnetic properties of (Ga,Fe)N, (Zn,Co)O and (Ga,Mn)As layers.

I will also introduce the newly founded Center for Electron Nanoscopy, which is part of the Technical University of Denmark. The Cen is founded from the generous donation of Moller and McKinney Moller Foundation. Cen houses 7 new microscopes built by FEI ranging from a standard SEM instrument to two highly specialized Titan TEMs. The new unit represents an exciting opportunity that will allow to perform state-of-the-art research utilizing all forms of electron microscopy including various *in situ* TEM experiments and electron holography analysis of magnetic nanostructures.

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András Kovács received his PhD in physics at Eötvös University, Budapest in 2005. His research was focused on thin film growth and analysis by TEM. Very soon after the PhD he received the JSPS fellowship and started to work in Hirotsu lab in Osaka University where he stayed for 3 years. His research work was focused on preparation and characterization of magnetic nanocrystals with TEM and SQUID. After Osaka, he started to work in the Electron Microscopy group of Oxford University where he worked on magnetic thin layers such as exchange-bias FM/AFM systems. Not so long time ago, he has moved to Copenhagen, Denmark to the newly formed Center for Electron Nanoscopy.

多数の皆様のご来聴をお待ちしております。

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