



center for nanophysics  
and advanced materials

# Condensed Matter Colloquium

Thursday, May 10, 2012

2 pm, Room 1201

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*Unusual Transport and Magnetism in Oxides and Oxide Interfaces*

Cationic vacancy induced magnetism seems to be a reproducible way to induce magnetism in oxides. I will illustrate this with the example of Ta in  $\text{TiO}_2$ . In addition, various magnetic phases are seen to co-exist at the atomic interfaces of insulators such as  $\text{LaAlO}_3$  (LAO) and  $\text{SrTiO}_3$  (STO). Lastly but not the least polar oxide barriers seem to promote exchange between magnetic layers which is an unexpected result requiring new understanding of magnetic interactions in oxides.

Refreshments at 1:30 pm in **Room 1305F**

