

Moments in Materials Presentation:

# ***Lest We Forget: Molecular Memory***



Speaker: Arun Batra

When: Thursday, August 8<sup>th</sup> 2013, 4:30 p.m.

Where: NWC, 7<sup>th</sup> floor meeting room, RM 703

The proposed use of molecules as 'spintronic' devices is nascent compared to the relatively more developed field of molecular electronics. This talk introduces the possible applications of single molecule systems in magnetic memory and spintronics. Prototypical single molecule magnets (SMMs) are introduced –  $Mn_{12}$  and  $Fe_8$  – and their applications and limitations are discussed. This talk will also introduce newer systems like phenalenyl, which are claimed to overcome some of these limitations.

Selected references

Raman, K. V., et al. (Moodera, J.S.) *Nature* 493 (2013) 509-513.

Rocha, A. R., et al. (Sanvito, S.) *Nat. Mater.* 4 (2005) 335-339.

Bogani, L. and Wernsdorfer, W. *Nat. Mater.* 7 (2008) 179-186.

