

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Seminarium specjalne

Uprzejmie zawiadamiamy, że w **piątek**

6 kwietnia 2012 r., o godz. 11:00

w sali 203 (bud. 1) odbędzie się seminarium, na którym

Prof. Ivan Schuller

Physics Department and Center For Advanced Nanoscience, University of California, USA

wyłosi referat na temat:

„Exchange Bias: towards a universal explanation”

Magnetic nanostructures produce interesting new phenomena and novel applications when the physical size becomes comparable to relevant magnetic length scales. In the “exchange biased” configuration in which a ferromagnetic nanostructure is in contact with an antiferromagnet a variety of unusual phenomena arise; the reversal mode of the ferromagnet changes in a substantial fashion, the superparamagnetic transition temperature is strongly affected and there is a noticeable change in the microscopic spin configuration. I will describe a comprehensive study, in which we studied these phenomena in nanostructured ferromagnets prepared by MBE and sputtering combined with lithography and self-assembly. These experiments include magnetotransport, magnetization, Magneto-optic Kerr effect, neutron and synchrotron scattering, and ultrafast pump-probe measurements. A general explanation of the origin of exchange bias which emerges from many experiments taken together will be presented.

Serdecznie zapraszamy

Tomasz Dietl
Roman Puźniak
Henryk Szymczak
Andrzej Wiśniewski