

BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA



INSTITUTO DE FÍSICA
"Luis Rivera Terrazas"



SEMINARIO
"DR. JESUS REYES CORONA"

"Efficient micromagnetics for magnetic storage devices"

Mr. Marco Antonio Escobar Acevedo
Centro de Investigaciones en Óptica A.C.

The ability to examine, describe, and predict the magnetic behavior, and macroscopic properties of nanoscale magnetic systems is essential for improving the existing devices, for progressing in their understanding, and for enabling new technologies. This work describes efficient micromagnetic methods as required for magnetic storage analysis. Their performance and accuracy is demonstrated by studying realistic, complex, and relevant micromagnetic system case studies. An efficient methodology for dynamic micromagnetics in large scale simulations is used to study the writing process in a full scale model of a magnetic write head. An efficient scheme, tailored for micromagnetics, to find the minimum energy state on a magnetic system is presented. This scheme can be used to calculate hysteresis loops. An efficient scheme, tailored for micromagnetics, to find the minimum energy path between two stable states on a magnetic system is presented. This minimum energy path is intimately related to the thermal stability.

Auditorio-IFUAP
Viernes 12 de Febrero de 2016
13:00 Hrs.