

Title: Devices in Spintronics: Magnetoresistance and Spin Dynamics

In this talk, the progressive investigations in metal based spintronics elements with focus on magnetoresistance effect will be introduced. Most of the spintronics magnetoresistive devices will be reviewed from their beginning till their recent developments. Fabrications, characterizations, physical mechanisms and applications of the most advanced spintronics elements will be over viewed. Concepts on the dynamics of magnetic materials and their devices toward fast spintronics elements and spin dynamics studies will be addressed.