



Walther-Meißner-Seminar

Walther-Meißner-Institute, Seminar Room 143

Date: Friday, 15 July 2022, 11:15 h

Speaker: Prof. Dr. Markus Meinert

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Title: Magnetization Switching with Spin-Orbit Torques

Abstract:

Spin currents generated via the spin Hall effect exert a spin-transfer torque on the magnetization of adjacent magnetic thin films. As the origin of the spin Hall effect lies in the spin-orbit coupling, we call this effect a spin-orbit torque. It enables intriguing applications: spin-orbit torque driven auto-oscillators and spin-orbit torque magnetic random access memory. In my talk, I will outline the fundamental principles and explain the benefits of spin-orbit torque driven spintronic devices over classical implementations.

References