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EINLADUNG zum IFP-SEMINAR

Passive RFID applications utilizing XMR magnetic field sensors

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Host:	Christoph Eisenmenger-Sittner
Termin:	Mittwoch, 08. November 2017, 16:00 Uhr
Ort:	Institut für Festkörperphysik, TU Wien
	Wiedner Hauptstraße 8-10, 1040 Wien
	Seminarraum DC rot 07 (roter Bereich, 7. OG)

Abstract:

Passive radio-frequency identification (RFID) applications only provide minor amounts of energy harvested by the reader field, way too low for Hall effect sensors. Giant (GMR), and tunneling magnetoresistance (TMR) magnetic field sensors are a key technology for hard disk drives, and magnetic random access memory. They require less energy than Hall effect sensors, allowing their application with passive RFID.
The combination of XMR magnetic field sensor with passive RFID allows to monitor temperature thresholds, linear displacements, or even strains. Long term applications are the main scope of application, for example structural health monitoring inside bridge pillars, or asphalt road layers.