北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Special Seminar

Nonequilibrium and anisotropic transport in semiconductor heterostructures

Michael Zudov

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Time: 10:00am, April 13, 2016 (Wednesday)

: 2016 4 13 （三 10:00

Venue: w563, Physics building, Peking University

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Abstract

Two-dimensional electron and hole gases formed in semiconductor heterostrutures host a rich variety of transport phenomena, such as quantum Hall effects and stripe phases at high magnetic fields and microwave-induced resistance oscillations and zero-resistance states at low magnetic fields. This talk will discuss recent developments in GaAs/AlGaAs and Ge/SiGe quantum wells, focusing on microwave photoresistance and transport anisotropies in tilted magnetic fields.

About the Speaker

Prof. Zudov received his Diploma from Moscow Engineering and Physics Institute, Moscow, Russia in 1994, and Ph. D in Physics from the University of Utah in 1999. Following postdoctoral research in Stanford, Rice, and Utah, he became an assistant professor in the University of Minnesota in 2004, and was since promoted to a full professor. His research interest is on low temperature transport of 2D electron systems, including the fractional quantum Hall effect and non-equilibrium quantum transport. He is well-known for the discovery of microwave-induced zero-resistance states in the quantum Hall system. He is a recipient of the NSFCAREER T3ret0.7ff1 8e T5.2 85.2 85.2 85.2 0 1 47 0Tf1 0 0 1 2490128Tm0 g