



Einladung

Es spricht: **Frederic Demmerle**

Walter-Schottky-Institut, München

Zeit: **Donnerstag, 23. Juni 2016, 14:30 Uhr**

Ort: **Technische Universität Berlin
Institut für Festkörperphysik
Hardenbergstraße 36, 10623 Berlin
Raum EW 431**

Thema: **„Covering the mid- to far-infrared with frequency mixing in nonlinear quantum cascade lasers“**

Abstract:

An emerging technology for compact and efficient far-infrared sources working at room temperature is the difference-frequency generation (DFG) in nonlinear quantum cascade lasers (QCLs). The crucial part is the utilization of active regions for the mid-infrared (MIR), which are able to produce watts of output power at room temperature. These serve as optical pumps for the monolithically integrated nonlinearity, generating a nonlinear response in the far-infrared. The device configuration has a Cherenkov phase matching scheme integrated, enabling the device to efficiently extract the generated far-infrared wavelengths.

Gäste sind herzlich willkommen!
Mitglieder der School of Nanophotonics