TECHNISCHE UNIVERSITÄT CHEMNITZ

PHYSIKALISCHES KOLLOQUIUM

Mittwoch, den 12.01.2011, um **15:30 Uhr**

Ort: Reichenhainer Str. 90; Neues Hörsaalgebäude, Raum: 2/N013

Prof. Oliver Schmidt

IFW Dresden

Strain driven quantum dots and smart tubes for interdisciplinary research

Strain can drive the formation of different types of 3D nanostructures. If strain is elastically relaxed during growth quantum dot heterostructures may assemble on the substrate surface. If the strain is released after growth, ultra-thin films can shape themselves into arrays of micro- and nanotubes. Quantum dots are particularly well-suited for photonic, electronic and thermoelectric applications, while shaped nanomembranes have established new paradigm shifting concepts in optofluidics, energy storage and nanorobotics. The talk will cover the main concepts in quantum dot and smart tube science in our group over the last couple of years and promotes a truly interdisciplinary research effort towards novel hybrid and multifunctional systems on and off the substrate surface. Examples range from wavelength tunable single photon sources to lab-in-a-tube systems and multifunctional microscopic jet engines.

Alle Zuhörer sind ab 15:15 Uhr zum Kaffee vor dem Hörsaal eingeladen.

Informationen zum Vortrag erteilt Prof. Dr. Christian von Borczyskowski , Tel. 0371/531-33036