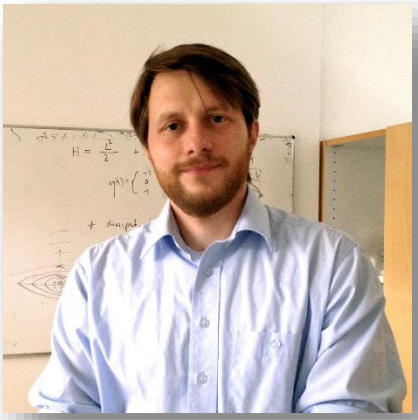
TECHNISCHE UNIVERSITÄT
CHEMNITZ

Institut für Physik
Physikalisches Kolloquium

Mittwoch, 01.07.2015, um **16:00 Uhr**

Ort: Reichenhainer Str. 90;
Zentrales Hörsaal- und Seminargebäude, Raum 2/N013



Dr. Alexander Croy
Max Planck Institute for the Physics
of Complex Systems

Nonlinearities in nanomechanical graphene resonators

The field of nanomechanics has been flourishing in the past couple of years. In particular the prospect of creating ultra-sensitive mass and force sensors was a major driving force. Moreover, the possibility to study fundamental aspects of (quantum) mechanical properties at the nanometer scale makes this subject very attractive and interesting. Due to its beneficial properties, graphene is nowadays one of the key materials for the realization of nanomechanical resonators. The low mass and small sizes of typical graphene-based devices allow for very high resonator frequencies and high quality factors. However, it was also found that nonlinear effects - like Duffing nonlinearity and nonlinear damping - play an important role for such systems. In this talk I will review some of the relevant nonlinear properties, their probable origin and consequences. I will conclude with an outlook on recent and prospect developments.

Alle Zuhörer sind ab 15:45 zum Kaffee vor dem Hörsaal eingeladen.

Informationen zum Vortrag erteilt:
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