CARL VON OSSIETZKY universität OLDENBURG
FAKULTÄT V
MATHEMATIK UND NATURWISSENSCHAFTEN

Institut für Physik

Theoriekolloquium

Am **1. November 2018** um **14.15 Uhr** in **W2 1-143** hält

Herr Dr. Ivan Latella (Sherbrooke)

einen Vortrag mit dem Titel

Near-field heat transfer: dynamical modulation and thermodynamic bounds

The exchange of heat between bodies by means of thermal radiation is restricted by the black-body limit, given by the Stefan-Boltzmann law, if such bodies are far away from each other. This limit can be considerably overcome, however, by bringing the objects at separation distances below the thermal wavelength, in the so-called near-field regime. After reviewing basic concepts behind this phenomenon, in this talk we will examine some examples illustrating potential applications and theoretical considerations. First, we will describe a radiative thermal transistor, a device that can be used to dynamically modulate the heat exchanged in contactless structures. Finally, we will analyze some thermodynamic bounds for the availability and efficiency in thermal radiation energy conversion processes taking place in the near field.

Interessierte sind herzlich eingeladen.

gez. PD Dr. Svend-Age Biehs