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CENTER FOR THEORETICAL PHYSICS



# Sommerfeld Theory Colloquium

Prof. S. Dietrich

University of Stuttgart

## Thermodynamic Casimir Forces

Long-ranged correlations in a fluid near its critical point lead to clearly identifiable effective forces acting on confining walls. The corresponding universal scaling functions are discussed for different boundary conditions and geometries. The theoretical predictions are compared with high precision experimental data for  $\text{He}^4$  and  $\text{He}^3/\text{He}^4$  wetting films near the superfluid phase transition as well as with synchrotron scattering data from classical binary liquid mixtures. Applications for colloidal suspensions are discussed.

Wednesday, 7<sup>th</sup> November 07, 11.15 h, Room 348 / 349, Theresienstr. 37 / III

Dr.T. Franosch