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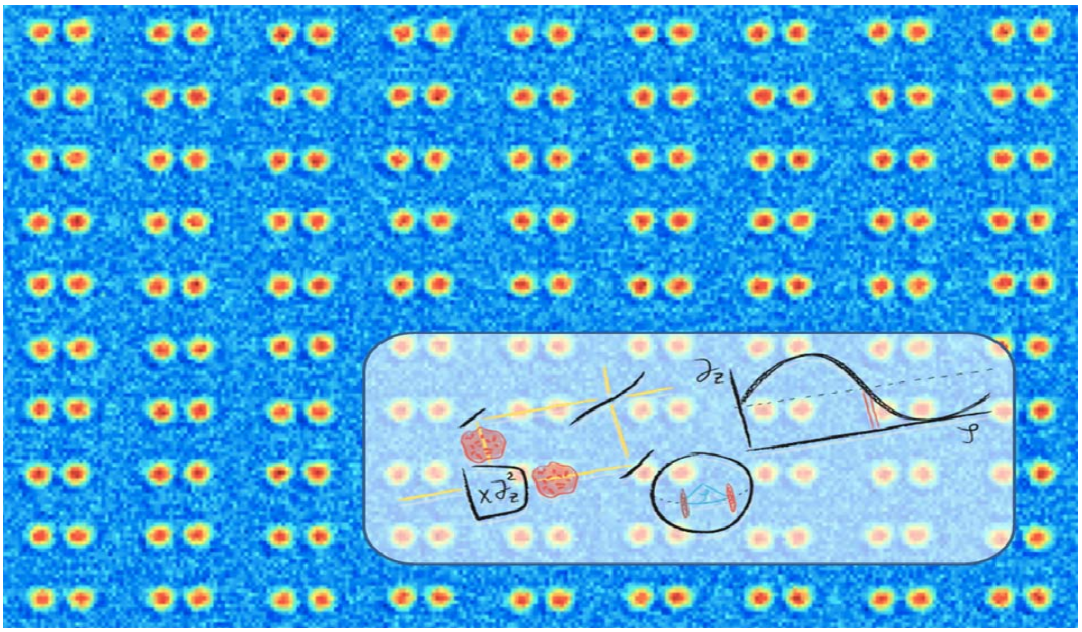
Einladung zum Physikalischen Kolloquium

Montag, 05.12.2011
16:15 Uhr in N24/H13

Professor Markus Oberthaler
Kirchhoff Institut für Physik, Universität Heidelberg

Modern Matterwave Optics

Matterwave optics is a well developed field and has lead to experimental demonstrations of many fundamental effects arising from the de Broglie wave nature of particles. It has led to high precision measurements of gravitational acceleration as well as time. The advent of Bose Einstein condensates allow nowadays experimentally to extend the single particle physics to the many particle level in a very controlled way. As one of the fundamental systems for interferometry the simple problem of N interacting particles in two modes will be discussed and corresponding experiments presented. How entangled states can be generated in this system improving matterwave interferometry beyond the classical precision bounds will be explained in detail.



Ab 15.45 Uhr Kaffee, Tee und Kekse vor dem Hörsaal H13

Organisation: **Prof. Marti, Tel.: 23011**
Dr. Retzker, Tel.: 22902
Host: Prof. Hecker Denschlag, Tel.: 26100