



## Einladung

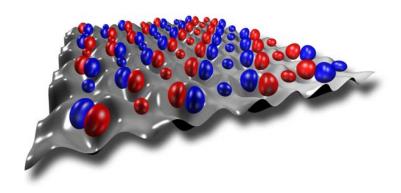
Physikalischen Kolloquium Montag, 06.02.2017 16:15 Uhr in N24/H13



Professor Dr. Andreas Hemmerich Universität Hamburg Institut für Laser-Physik

## Bosons with complex order

Bosons at very low temperatures are known to undergo Bose-Einstein condensation and gather in the ground state, often with intriguing consequences like superfluidity. The many-body wave function thus formed is positive real under most general circumstances and hence topologically trivial as has been early pointed out by Feynman. However, under certain conditions, condensation can also occur in metastable excited states, which can lead to highly non-trivial superfluid order with unusual properties. I will introduce the experimental arena of optical lattices, where atomic gases crystallized in a web of light are used to simulate ultracold condensed matter, and discuss our recent observations of unconventional forms of superfluidity in metastable higher bands.



Ab 16.00 Uhr Kaffee, Tee und Kekse vor dem Hörsaal H13

Organisation: Prof. Dr. F. Jelezko, Tel. 23750, Host: Prof. Dr. J. Hecker Denschlag, Tel. 26100, off.: 26101