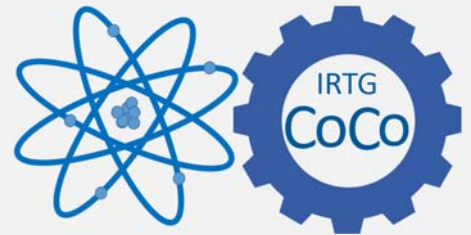


IRTG-Seminar



Dr. Markus Debatin

State University of Singapore

“Dipolar molecules - molecular physics on the pathway towards dipolar quantum gases”

Ultracold heteronuclear molecules are a prime candidate for investigation of strongly-interacting dipolar quantum gases and ultracold chemistry. If high phase space density samples of ground state molecules are desired, assembling the molecules from laser-cooled atoms has proven to be a viable strategy. Focussing on LiK the creation of ultracold mixtures, the assembly of Feshbach molecules and possible pathways for stimulated Raman adiabatic passage (STIRAP) ground-state transfer will be explained and experimental spectroscopy results will be given. A comparison to the much heavier RbCs will be made in order to highlight peculiarities of the LiK molecule and the high potential of the method.

**Tuesday, October 20, 2015, 4:00 p.m., HS II,
Physik-Hochhaus, Hermann-Herder-Str. 3**

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