

QUANTUM OPTICS SEMINAR



Title: Exploring an ultracold Fermi-Fermi mixture: interspecies Feshbach resonances of ${}^6\text{Li}$ - ${}^{40}\text{K}$

Speaker: Florian Schreck,
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Time: Tuesday, January 29 at 10:15

Place: 1525-323

Abstract:

We explore mixtures of two fermionic species, ${}^6\text{Li}$ and ${}^{40}\text{K}$. Recently we have observed interspecies Feshbach resonances in this mixture. Interpretation of the data unambiguously assigns molecular bound states to the various resonances and fully characterizes the ground-state scattering properties in any combination of spin states. Using this knowledge we hope to be able to produce ${}^6\text{Li}{}^{40}\text{K}$ molecules, cool them to quantum degeneracy, and study their BEC-BCS crossover.

Michael Drewsen