



Colloquium
Dahlem Center for Complex Quantum Systems

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**Exotic correlated quantum phases of cold atomic gases:
color superfluidity, "baryon" formation, and more...**

Location: Hörsaal A (1.3.14)

Time: Tuesday, July 5, 2011, 14:00 c.t.

Abstract

In this lecture, I will discuss from the perspective of a solid state physicist, how cold atomic systems allow us to realize new types of strongly correlated systems and thereby create new phases of matter. First, I will give a short review of some of the most recent fascinating experiments of this field. Then, as a specific example, I will discuss, how the formation of 3-body bound states ("baryon formation") and "color superfluidity" can be studied in SU(3)-symmetrical 3-component systems. If time allows, I will also make a detour to discuss other possible quantum phases and/or some aspects of quantum quenches.