



LENS-QSTAR Seminar
May 16, 2014 at 10:30 – Aula A
Dipartimento di Fisica e Astronomia - Sede di Arcetri (L.go Enrico Fermi 2, Firenze)

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Bosonic Mixtures in Optical Superlattices

Achieving novel states with ultracold atoms in optical lattices is becoming more and more relevant. Some examples of interest include Eta Condensation (condensate of repulsively bound pairs), cluster states, and quantum magnetic states. Common amongst them all is non-trivial long range order over the entire lattice. But achieving these states generally requires very low entropy. Recently, several schemes have been proposed on using optical superlattices to reach these states. We will talk about the general principles and the specific application to quantum magnetic states.

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