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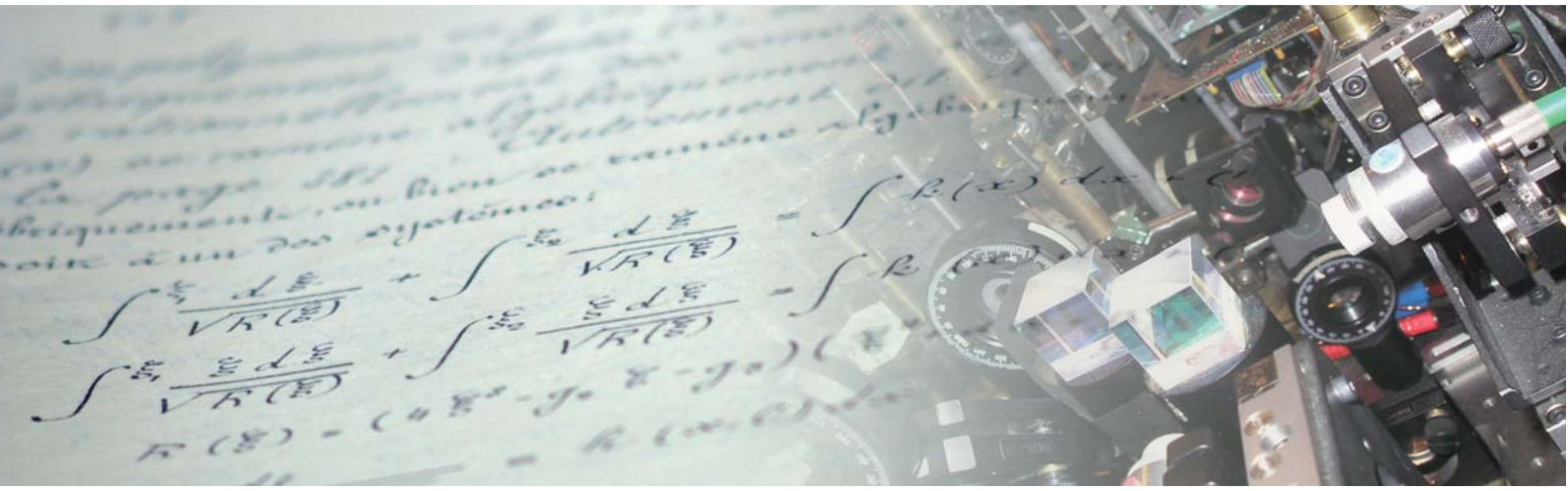

UNIVERSITÉ LILLE 1

SEMINAIRE CEMPI

Dipolar Chromium Atoms: Spin Dynamics in Optical Lattices and Thermodynamics

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Université Paris 13

Jeudi 19 Novembre, 11h00, Salle 172, P5bis

In our experiments, we study the magnetic properties of Bose-Einstein condensates made of chromium atoms, loaded in an optical lattice. The main distinctive feature of this system is that magnetic dipole-dipole interactions couple the spin of different atoms located in different lattice sites. Dipolar atoms loaded in optical lattices are therefore a new original platform to study many-body quantum physics in a strongly correlated bosonic system, and quantum magnetism.

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