

# MC22: Quantum Gases and Condensed Matter

Organisateurs : T. Roscilde, A. Perrin, A. Rançon, F. Werner

**Jeudi 25 août – 15h00- 18h30**

**15:00 - 15:30** Quantum stabilized many-body states in dipolar Bose gases and new perspectives

INVITÉ

Lauriane Chomaz

MC22-1

*Universität zu Heidelberg*

**15:30 - 15:45** **Simulating quantum Hall systems with Dysprosium atoms : From the 2D ribbon and the cylinder to the 4D system**

MC22-2

Jean-Baptiste Bouhiron , Aurélien Fabre, Quentin Redon, Tanish Satoor, Qi Liu, Raphael Lopes, Sylvain Nascimbene

*Laboratoire Kastler Brossel, Paris*

**15:45 - 16:00** **Floquet engineering of an interaction-induced order at arbitrary range**

MC22-3

Nathan Dupont , F. Arrouas , L. Gabardos , J. Billy , B. Peaudecerf , P. Schlagheck, and D. Guéry-Odelin

*Laboratoire Collisions Agrégats Réactivité, Toulouse*

**16:00 - 16:15** **Localization Dynamics in a one-dimensional lattice from Static and Mobile Impurities**

MC22-4

Ephraim Bernhardt , Fan Yang, and Karyn Le Hur

*Centre de Physique Théorique, Palaiseau*

**16:15 - 16:30** **Understanding the mobility edge through the Localization Landscape Theory for the tight-binding model**

MC22-5

Pierre Pelletier , Dominique Delande, and Marcel Filoche

*Laboratoire de Physique de la Matière Condensée, Palaiseau*

**16h30-17h00** Coffee break

17:00 - 17:30 Quantum simulation of spin models with arrays of single Rydberg atoms

INVITÉ

Thierry Lahaye

MC22-6

*Institut d'Optique - Palaiseau*

17:30 - 17:45 **The fate of the Bogoliubov's pairs at increasing interactions**

MC22-7

Gaétan Hercé, Jan-Philip Bureik , Antoine Ténart , and David Clément

*Laboratoire Charles Fabry, Palaiseau*

17:45 - 18:00 **Engineering the photon statistics by destructive and constructive two-photon interference**

MC22-8

M. Schemmer, M. Cordier , P. Schneeweiss , J. Volz and A. Rauschenbeutel

*Humboldt-Universität zu Berlin*

18:00 - 18:15 **Statistical properties of the momentum occupation number and correlations for the Tonks-Girardeau gas on a ring and in a harmonic trap**

MC22-9


P. Devillard , M. Albert , , P. Vignolo , D. Chevallier , and A. Benzahi

*Centre de Physique Théorique, Marseille*

18:15 – 18:30 **Two-fluid coexistence in a spinless fermions chain with pair hopping**

MC22-10

Lorenzo Gotta , Leonardo Mazza , Pascal Simon , and Guillaume Roux

*Laboratoire de Physique Théorique et Modèles Statistiques, Orsay* 

## Posters

MC22-11

**Correlations and symmetries of one-dimensional bosonic mixtures**

Gianni Aupetit-Diallo, Mathias Albert , and Patrizia Vignolo

*Institut de Physique de Nice*

MC22-12

**Three-body contact for fermions**

Félix Werner et Xavier Leyronas

*Laboratoire Kastler Brossel, Paris*