EPFL PHYSICS COLLOQUIUM

What Do We Know Today About the Two-Dimensional Hubbard Model?

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14:00
Room CM1 120

or on zoom :
https://epfl.zoom.us/j/64905394203

APERO after the colloquium

The Hubbard model is a paradigm of the `strong correlation problem', with relevance to high-Tc superconductors and ultra-cold atoms. Key aspects of its physics in two dimensions can now be established beyond doubt, thanks to the development of controlled and accurate computational methods working in synergy (such as quantum embedding, tensor networks, various flavors of quantum Monte Carlo and, recently, neural quantum states). I will present in this perspective how the `pseudogap' can be understood in both the weak and strong coupling regimes and review the current understanding of emerging competing orders at low temperature such as d-wave superconductivity or stripes.

Host: Prof. Giuseppe Carleo

School of Basic Sciences

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