

Meetings of the Belgian Quantum Physics Initiative

Colloquium



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Building quantum systems from scratch: supersolids and more

Cooling and manipulating atomic gases have opened up new avenues to explore fundamental concepts in quantum many-body physics. Synthetically created potentials and control of atom-atom interactions have made it possible to tailor the properties of experimental systems at a microscopic level. This led to the concept of quantum simulation – here a system capable of reproducing the physics of many-body Hamiltonians.

One of the goals of this approach is to provide answers to open questions in the context of condensed matter physics. An equally important frontier is the construction of novel systems, such as supersolids, which may at present not be realizable in solid-state or other systems. This path leads to new questions and surprises.

Thursday 18 JANUARY 2018 AT 2.00 P.M.

COFFEE AND TEA WILL BE SERVED AT 3.00 P.M.

Two short talks will follow:

4pm: Stijn De Baerdemacker (Ghent Univ.)

«Integrable wavefunctions for non-integrable systems»

4:30pm: Alex Bols (KU Leuven)

« Asymptotic localization: a paradigm for very slow transport and thermalization»

Espace Baudouin

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