



ID de Contribution: 31

Type: Non spécifié

Quasiholes in the lowest Landau level pinned by impurities: detecting anyonic statistics from density profiles (ONSITE presentation)

mercredi 8 septembre 2021 15:00 (1 heure)

When a quantum gas is confined to the lowest Landau level, quasiholes can be localised and pinned by static impurity potentials; as it is well known, they can have anyonic statistics, Abelian and non-Abelian. We present a method to characterize the anyonic statistics of quasiholes that is based only on static measurements of their density profile and that does not rely on any form of interference. We test our method on the paradigmatic examples of the Laughlin state and of the Moore-Read state, that is known to support excitations with non-Abelian statistics of Ising type.

Orateur: Prof. MAZZA, Leonardo (Université Paris-Saclay (LPTMS))