

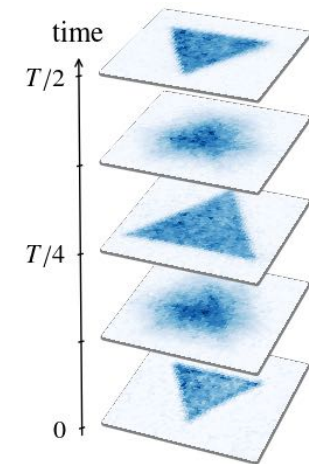
Freitag, 06. Mai 2022, 15 Uhr c.t. im Hörsaal I des Physikalischen Instituts



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**„Quantum gases in low dimension:
From scale invariance to Quantum
Hall physics“**



The physics of many-body systems depends strongly on their dimensionality, as illustrated by the unique properties of electron gases confined in quantum wells. More recently, advances in cold atom physics have led to new developments in the study of the "quantum Flatland". By freezing certain dimensions of space, or by exploiting synthetic extra-dimensions, one can reveal spectacular features of low-dimensional physics at ultra-low temperature. In this talk, I will illustrate the richness of this 2D world by describing the emergence of scale invariance for flat atomic gases and discussing their connection with Quantum-Hall-type phenomena.