« Atelier sur l'information quantique et mécanique statistique quantique » 15 au 19 octobre 2018

"Workshop on Quantum Information and Quantum Statistical Mechanics" October 15-19, 2018

Many-body quantum Hall effect: an overview

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In this talk, I will discuss the current understanding of quantization of conductance in the quantum Hall effect in an interacting setting. This includes a brief review of the proof of Hastings and Michalakis and its simplifications and a more detailed independent proof using a recently developed many-body index formula. I will also relate various expressions of the linear response coefficient defining conductance.

This is all joint work with A. Bols, W. De Roeck and M. Fraas.

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