

Mathematical Colloquia

Monday, 15 November 2021

17:15 h, lecture room 119 (ExWi)

Dr. Frank Roesler, Cardiff University

Computational Complexity in Quantum Mechanics

Abstract: In this talk I will give a brief introduction to the Solvability Complexity Index hierarchy introduced by Hansen (2011). This theory provides a framework that classifies computational problems by the number of successive limits needed to solve them, starting from a computer algorithm. In the special case of spectral theory for Schrödinger operators, I will present some recent results concerning the existence of „one size fits all“ algorithms that compute the spectrum of a Schrödinger operator independently of the particular potential.

CORONAVIRUS SAFETY MEASURES:

From September 20, 2021, the certificate requirement applies to all activities that take place within the framework of the University of Bern, regardless of the number of participants. Compliance with the certificate requirement will be checked by means of random sampling.

All other measures, especially the social distancing rules and hygiene recommendations, remain in place and apply until further notice.