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DK Seminar

March 16, 2015, 14:15 - 15:00
Vienna University of Technology,
Freihaus, green area, 4th floor, 101C

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Energy-Transport Equations for ultra cold atoms in an optical lattice

In the study of semiconductors, adequate simplifying models are of big interest. A fermionic gas in an optical lattice is a physical model for a semiconductor, which can mathematically be described by Energy-Transport equations. The interaction of the atoms is given by a force on the Hartree level such that the potential is proportional to the density. The talk investigates the difficulties of an entropie-ansatz for the Energy-Transport equations arising from the lack of regularity of the potential.