



Invitation to Seminar Talk

Derivations of the time-dependent Hartree-Fock equations

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Host: Robert Seiringer

I will present recent results on deriving the time-dependent Hartree-Fock equations from the Schrödinger equation for fermions in a mean-field limit. I introduce and discuss different scaling limits that were proposed for such a derivation. Several new methods were recently developed for tackling this kind of problems and I will focus on introducing the one I used myself in recent works. This method is based on controlling a well-chosen functional by estimating certain transition amplitudes in the Fermi gas. The functional can nicely be expressed in the language of second quantization and is directly related to the trace norm difference of reduced density matrices.

Thursday, April 23, 2015, 4:00pm

Meeting Room, Central Building, 3rd floor



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This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage (note that the IST Shuttle times are highlighted in dark green):

http://ist.ac.at/fileadmin/user_upload/pdfs/IST_shuttle_bus.pdf

The IST Shuttle bus is marked IST Shuttle and has the Institute Logo printed on the side.