



## Mathematics and CS Seminar

# Dynamics of the strongly coupled polaron

**Simone Rademacher (IST Austria)**

**Host: Robert Seiringer**

We study the time evolution of the strongly coupled polaron described by the Fröhlich Hamiltonian with large coupling constant  $\alpha$ . We show that the time evolution of a particular class of Pekar product states is well approximated by the Landau-Pekar equations for times short compared to  $\alpha^2$ . This is achieved by proving an adiabatic theorem for the Landau-Pekar equations. This is jointwork with Nikolai Leopold, Benjamin Schlein and Robert Seiringer.

**Thursday, October 17, 2019 at 4 pm**  
Heinzel Seminar Room / Office Building West



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):  
[https://ist.ac.at/wp-content/uploads/2019/03/IST\\_Shuttle\\_Bus\\_timetable.pdf](https://ist.ac.at/wp-content/uploads/2019/03/IST_Shuttle_Bus_timetable.pdf)  
The IST Shuttle bus is marked IST Shuttle and has the Institute Logo printed on the side.