



TRR 80 Sonderseminar

Am Dienstag, den 29. Januar um 16:00 Uhr

spricht

Prof. Dr. Thomas Pruschke

Universität Göttingen

über das Thema

Monte-Carlo Approach to Stationary Non-equilibrium of Mesoscopic Systems

Calculating properties of correlated systems out of equilibrium is a challenging task, even if one targets only stationary situations. In particular, transport through nano-objects like molecules or quantum dots is of strong interest, and a theory to calculate transport properties or merely local quantities in a reliable way for reasonably strong correlations very desirable.

Based on a suggestion by Han and Heary we show that one can use advanced quantum Monte-Carlo techniques to calculate quantities with high accuracy. Employing a two-dimensional analytical continuation based on maximum entropy, we are able to calculate different local quantities in stationary non-equilibrium, like current, magnetization or double occupancy. We will compare our results to others obtained by different methods like time-dependent numerical renormalization, real-time quantum Monte-Carlo or real-time density-matrix renormalization group.

Gäste sind herzlich willkommen.

Der Vortrag findet im Seminarraum S-288 / Institut für Physik, Universität Augsburg statt.

Gastgeber: Dr. Marcus Kollar
www.trr80.de