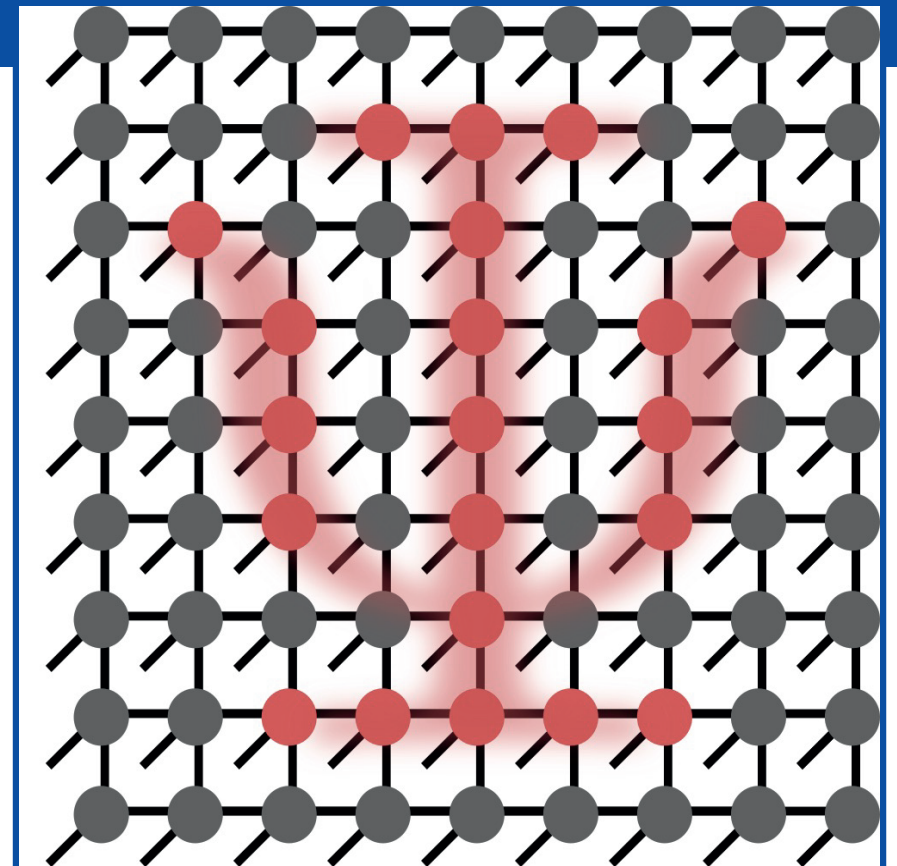




Tensor Product State Simulations of Strongly Correlated Systems

International School 1 - 5 November 2016

The aim of the school is to teach young PhD students the basics of tensor-product states as well as the most recent technical developments. This is particularly important given the increasing number of groups working on this quickly evolving topic. The lectures will be given by researchers who work actively both on the development and the application on tensor-product state based methods.



Topics

- Entanglement, matrix-product states (MPS), simple algorithms, some Python basics
- MPS for spectral functions, excited states, finite temperatures
- Applications of MPS in condmat and AMO
- Introduction to Projected Entangled Pair States (PEPS) and the multi-scale entanglement renormalization ansatz (MERA)
- Applications of PEPS, model states, bulk boundary correspondence, future challenges!

Invited speakers:

Phillipe Corboz (NL)
 Fabian Heidrich-Meisner (DE)
 Frank Pollmann (DE)
 Norbert Schuch (DE)
 Frank Verstraete (AT)

Scientific coordinators:

Frank Pollmann
 Dresden, Germany
 Norbert Schuch
 Garching, Germany
 Frank Verstraete
 Vienna, Austria

Organisation:

Mandy Lochar
 MPIPKS Dresden

Applications received before 31 August 2016 are considered preferentially.

Applications are welcome and should be made by using the application form on the event's web page. The number of attendees is limited. The registration fee for the international school is 120 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses. Please note that childcare is available upon request.

For further information please contact:

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