

DAY 1

18.04

Session A: Lecture

9:00-10:30

Transcorrelated Hamiltonian methods
Full Configuration Interaction Quantum Monte Carlo



Session A: Lecture

10:45-11:30

Transcorrelated Hamiltonian methods
Full Configuration Interaction Quantum Monte Carlo



Session A Tutorial: NECI

11:45-13:00

Transcorrelated Hamiltonian methods
Full Configuration Interaction Quantum Monte Carlo



Session A Tutorial: NECI

14:30-16:00

Transcorrelated Hamiltonian methods
Full Configuration Interaction Quantum Monte Carlo



Session B: Lecture

16:15-17:00

CIPSI: selected configuration interaction
methods for ground and excited states



Session B: Lecture

17:15-18:00

CIPSI: selected configuration interaction
methods for ground and excited states



DAY 2

19.04

Session B: Lecture

9:00-9:45

CIPSI: selected configuration interaction
methods for ground and excited states



Session B Tutorial: Quantum Package

10:00-11:30

CIPSI: selected configuration interaction
methods for ground and excited states



Session B Tutorial: Quantum Package

11:45-13:00

CIPSI: selected configuration interaction
methods for ground and excited states



Session C: Lecture

14:30-15:15

Density Matrix Renormalization Group
Symmetry-Adapted Perturbation Theory for excited states



Session C: Lecture

15:30-16:15

Density Matrix Renormalization Group
Symmetry-Adapted Perturbation Theory for excited states



Session C: Lecture

16:30-17:15

Density Matrix Renormalization Group
Symmetry-Adapted Perturbation Theory for excited states



BANQUET

19:00

DAY 3

20.04

Session C

9:00-10:30

Tutorial: GammCor & MOLMPS



Density Matrix Renormalization Group
Symmetry-Adapted Perturbation Theory for excited states



Session C

10:45-12:00

Tutorial: GammCor & MOLMPS



Density Matrix Renormalization Group
Symmetry-Adapted Perturbation Theory for excited states



Session D: Lecture

12:15-13:00

Machine-learning potentials



Session D Tutorial: ML

14:30-15:15

Machine-learning potentials



Session D Tutorial: ML

15:30-16:15

Machine-learning potentials



15 minutes



1.5 hours

Lodz University of Technology
Institute of Physics
ul. Wolczanska 217/221
93-005 Lodz, Poland

Lectures and tutorials: room 0.4
Coffee and lunch: room 0.25

Session A

Speakers and Tutors

Ali Alavi¹
Pablo Lopez¹
Daniel Kats¹



Topics covered:

Transcorrelated Hamiltonian methods
Full Configuration Interaction Quantum Monte Carlo

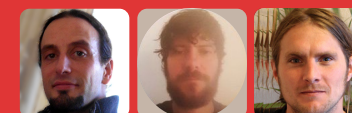
Tutorial Code: NECI

¹Max Planck Institute for Solid State Research, Stuttgart

Session B

Speakers and Tutors

Anthony Scemama¹
Emmanuel Giner²
Pierre-Francois Loos¹



Topics covered:

CIPSI: selected configuration interaction
methods for ground and excited states

Tutorial Code: Quantum Package

¹CNRS, Toulouse
²CNRS, Paris

Session C

Speakers and Tutors

Kasia Pernal¹
Michal Hapka²
Libor Veis³
Aleksandra Tucholska¹



Topics covered:

Density Matrix Renormalization Group
Symmetry Adapted Perturbation Theory for excited states
Dynamic correlation energy for strongly correlated systems

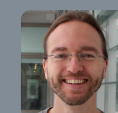
Tutorial Codes: GammCor, MOLMPS

¹Lodz University of Technology
²University of Warsaw
³J. Heyrovsky Institute of Physical Chemistry, Prague

Session D

Speakers and Tutors

Matthias Rupp¹



Topics covered:

Introduction to machine learning potentials
Ultra-fast interpretable machine-learning potential

Tutorial Code: ML

¹Luxembourg Institute of Science and Technology