




Quantum Simulations of Complex Many-Body Systems: From Theory to Algorithms

Euro Winter School 2002

Sunday, 24 February 2002, 18:00 – 21:00 Registration and Get-Together Party with Welcome Dinner

	Monday 25 February	Tuesday 26 February	Wednesday 27 February	Thursday 28 February	Friday 1 March
9:00-10:00	9:30 WELCOMES F. Hoßfeld D. Marx	MC OVERVIEW <i>Path Integral Monte Carlo</i> D. M. Ceperley	KEYNOTE <i>Static and Time-Dependent Many-Body Effects via Density-Functional Theory</i> E. K. U. Gross	KEYNOTE <i>Quantum Monte Carlo Simulations on Lattices</i> F. F. Assaad	KEYNOTE <i>Statistical Analysis of Simulations: Data Correlations and Error Estimation</i> W. Janke
10:00-11:00	KEYNOTE <i>Monte Carlo Methods: Overview and Basics</i> M. Lewerenz	MC FOCUS <i>Simulations of Fermions and the Sign Problem</i> D. M. Ceperley	MD OVERVIEW <i>Ab Initio Molecular Dynamics and Ab Initio Path Integrals</i> M. E. Tuckerman	MC FOCUS <i>Determinantal Methods on Lattices</i> F. F. Assaad	MD FOCUS <i>Nonadiabatic Dynamics: Mean-Field and Surface Hopping</i> N. Doltsinis
11:00-11:30	Coffee Break 				
11:30-12:30	NUMERICS <i>Pseudo Random Numbers: Generation and Quality Checks</i> W. Janke	NUMERICS <i>Parallel Programming Models, Tools and Performance Analysis</i> B. Mohr	NUMERICS <i>Integrators for Quantum Dynamics: A Numerical Analyst's Brief Review</i> Ch. Lubich	NUMERICS <i>Iteratively Solving Large Sparse Linear Systems on Parallel Computers</i> M. Bücker	NUMERICS <i>Long-Range Interactions in Many-Particle Simulation</i> P. Gibbon
12:30-14:30	Lunch Break 				
14:30-15:30	MC OVERVIEW <i>Diffusion and Green's Function Quantum Monte Carlo Methods</i> J. B. Anderson	EXCURSION Visit to Research Centre Jülich	POSTER PRESENTATIONS (A1-A40)	POSTER PRESENTATIONS (B1-B41)	MC FOCUS <i>Reputation Quantum Monte Carlo</i> S. Moroni
15:30-16:30	KEYNOTE <i>Classical Molecular Dynamics</i> G. Sutmann	EXCURSION Visit to Research Centre Jülich	MD FOCUS <i>Quantum Molecular Dynamics with Wave Packets</i> U. Manthe	MC FOCUS <i>Effective Hamiltonian Approach for Strongly Correlated Lattice Models</i> S. Sorella	MD FOCUS <i>Dynamic Properties via Fixed Centroid Path Integrals</i> R. Ramirez
16:30-17:00	Coffee Break 				
17:00-18:00	MD OVERVIEW <i>Path Integration via Molecular Dynamics</i> M. E. Tuckerman	EXCURSION Visit to Research Centre Jülich	MC FOCUS <i>Exchange Frequencies in 2D Solids: Example of Helium 3 Absorbed on Graphite and the Wigner Crystal</i> B. Bernu	MC FOCUS <i>The LDA+DMFT Approach to Materials with Strong Electronic Correlations</i> D. Vollhardt	MD FOCUS <i>Relieving the Fermionic and the Dynamical Sign Problem: Multilevel Blocking Monte Carlo Simulations</i> R. Egger
Evening		18:00 – 20:00 Reception and Dinner at the See-Casino			19:00 – 22:00 Organ Recital and Farewell Dinner