

Program last updated: Tuesday, 29 June 2010

**The 8th European Conference on  
Computational Chemistry**  
25-28 August 2010, Lund, Sweden

# Wednesday 25 August

## in Palaestra lecture hall

The organizers reserve the right to make alterations in the program

12.30-14.00	<b>Registration</b>
14.00-14.15	<i>Conference opening and welcome</i>
	<b>Session 1 <i>Materials and multiscale modelling</i></b>
14.15-15.15	(PL) <b>William Goddard</b> , California Institute of Technology, USA <i>First-Principles Based Theory and Applications to Energy, Materials, Pharma, Catalysis, and Water</i>
15.15-15.35	(OC) <b>Stefano Evangelisti</b> , University of Bologna, Italy <i>Beryllium Chains on Graphene Nanoislands</i>
15.35-15.55	(OC) <b>Gianluca Malavasi</b> , University of Modena and Reggio Emilia, Italy <i>Bioactive phospho-silicate glasses: a molecular dynamics simulation study using rigid ion and core shell models</i>
15.55-16.25	<b>Coffee</b>
16.25-16.55	(KL) <b>Kersti Hermansson</b> , Uppsala University, Sweden <i>Title to be announced</i>
16.55-17.15	(OC) <b>XueQing Zhang</b> , Eindhoven University of Technology, The Netherlands <i>Kinetic Monte Carlo modeling of initial stage zeolite synthesis</i>
17.15-17.45	<b>Inga Fischer-Hjalmars Award ceremony</b> <b>Na Lin</b> , University of Tromsø, Norway <i>Vibrationally Resolved Multi-Photon Absorption and Dichroism</i>
18.00-19.30	<b>Poster session 1 and refreshments</b>

# Thursday 26 August

## in Palaestra lecture hall

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<b>Session 2</b>	<b><i>Biological chemistry</i></b>
09.00-09.45	(PL) <b>Walter Thiel</b> , Max-Planck-Institut für Kohlenforschung, Germany <i>Theoretical Studies of Enzymatic Reactions</i>
09.45-10.05	(OC) <b>Lubomir Rulišek</b> , Academy of Sciences of the Czech Republic, Czech Republic <i>QM/MM and Multireference Calculations of Reaction Mechanisms of Redox-Active Metalloproteins</i>
10.05-10.25	(OC) <b>Leif Eriksson</b> , School of Chemistry, National University of Ireland, Ireland <i>SLC25A43: From gene sequence to protein function</i>
10.25-10.50	<b>Coffee</b>
10.50-11.20	(KL) <b>Berk Hess</b> , Stockholm University, Sweden <i>The state of the art in bio-molecular simulation</i>
11.20-11.40	(OC) <b>Judith Sponer</b> , Academy of Sciences of the Czech Republic, Czech Republic <i>Quantum Chemical Studies on the Prebiotic Chemistry of Nucleic Acids</i>
11.40-12.10	(KL) <b>Michal Pitonak</b> , Comenius University, Bratislava, Slovak Republic <i>Many-body effects in DNA base pairs interactions at highly correlated ab initio level</i>
12.10-13.40	<b>Lunch</b>
<b>Session 3</b>	<b><i>Homogeneous catalysis</i></b>
13.40-14.25	(PL) <b>Feliu Maseras</b> , ICIQ, Spain <i>Enantioselective hydrogenation: a new twist to old mechanisms</i>
14.25-14.45	(OC) <b>Michael Hall</b> , Texas A&M University, USA <i>Mechanism of Electrocatalytic Hydrogen Production in Models for Iron-Iron Hydrogenase: A Density Functional Theory Study of Proton Dissociation Constants and Electrode Reduction Potentials</i>
14.45-15.05	(OC) <b>John Slattery</b> , The University of York, UK <i>The ligand-assisted proton shuttle (LAPS) mechanism in organometallic transformations involving alkynes</i>
15.05-15.30	<b>Coffee</b>
15.30-16.00	(KL) <b>John McGrady</b> , University of Oxford, UK <i>Water oxidation catalysis – some insights from computational chemistry</i>
16.00-16.20	(OC) <b>Pietro Vidossich</b> , Universitat Autònoma de Barcelona, Spain <i>Ab-initio molecular dynamics modeling of water oxidation by mononuclear Ru and Ir catalysts</i>
16.20-16.40	(OC) <b>Christophe Raynaud</b> , Université Montpellier, France <i>C-H oxidation by Mn porphyrins: A theoretical study on the nature of the active species and the reaction</i>
16.40-17.00	(OC) <b>Timofei Privalov</b> , Royal Institute of Technology, Sweden <i>Involvement of Seven-Coordinate Ru-centers in Catalytic Water Oxidation: Rationalization of Mono- and Bi-Nuclear Pathways</i>
17.00-19.00	<b>Poster session 2 and refreshments</b>

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# Friday 27 August

## In Palaestra lecture hall

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### Session 4 *Soft matter*

- 09.00-09.45 (PL) **Martien Cohen Stuart**, Wageningen University, the Netherlands  
*From atoms to hydrogels: how can modelling contribute to understanding Soft Matter?*
- 09.45-10.05 (OC) **Aatto Laaksonen**, Stockholm University, Sweden  
*Computer modelling and simulations of porous materials*
- 10.05-10.25 (OC) **Alessandro Magliano**, University of Rome, Italy  
*Molecular dynamics study of aggregation of amyloidogenic peptides in explicit water*

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#### 10.25-10.50 **Coffee**

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- 10.50-11.20 (KL) **Martin Nilsson Jacobi**, Chalmers University of Technology, Sweden  
*Estimating effective force fields in dissipative particle dynamics*
- 11.20-11.40 (OC) **Cesare Mollica**, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland  
*Defeating the efficiency of both quantum and classical simulations with accurate semiclassics [1]*
- 11.40-12.00 (OC) **Joakim Stenhammar**, Lund University, Sweden  
*Bulk simulation of polar liquids in cubic and spherical symmetry*

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#### 12.20-14.00 **Lunch**

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### Session 5 *Computational chemistry on alternative platforms*

- 13.40-14.25 (PL) **Tod Martinez**, Stanford, USA  
*Electronic Structure and First Principles Dynamics on Graphical Processing Unit*
- 14.25-14.45 (OC) **Allesandro Constantini**, University of Perugia, Italy  
*Grid Enabled Molecular Simulations: from Quantum Mechanics to Molecular Dynamics*
- 14.45-15.15 *Keynote contribution*  
**Ron Dror**, D. E. Shaw Research, USA  
*Long simulations of GPCRs on a specialized molecular dynamics machine*

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#### **Free afternoon**

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#### 19.00- **Banquet dinner at Grand Hotel**

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# Saturday 28 August

in Palaestra lecture hall

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## Session 6 *Photochemistry and photobiology*

09.00-09.45 (PL) **Massimo Olivucci**, Bowling Green State University, USA & University of Siena, Italy  
*Computational Photochemistry and Beyond*

09.45-10.05 (OC) **Ines Corral**, Universidad Autónoma de Madrid, Spain  
*O-O homolysis vs. singlet oxygen generation: two competing deactivation pathways in excited model endoperoxides*

10.05-10.25 (OC) **Bernhard Sellner**, University of Vienna, Austria  
*The Photodynamics of Azomethane – A Nonadiabatic Surface-Hopping Study*

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10.25-10.50 **Coffee**

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10.50-11.20 (KL) **Leticia Gonzalez**, Friedrich-Schiller-Universität Jena, Germany  
*Photochemistry, dynamics, and control of molecular devices*

11.20-11.40 (OC) **Luis Serrano-Andrés**, University of Valencia, Spain  
*Photochemistry and Quantum Chemistry: the New Frontiers*

11.40-12.10 (KL) **Lynn Kamerlin**, University of Southern California, USA  
*The Use of Multiscale Approaches to Model Ultra (and Not So) Fast Biological processes*

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12.10- **Conference closing**

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