

# Latsis-Symposium "Intramolecular Dynamics, Symmetry and Spectroscopy"

6-10 September 2008, ETH Zurich

## 3rd Announcement

The online registration and the site for submission of abstracts for the Latsis-Symposium "Intramolecular Dynamics, Symmetry and Spectroscopy" will be open till July 15th 2008. For further informations we refer to the website of the conference ([www.latsis2008.ethz.ch](http://www.latsis2008.ethz.ch)).

The goals of the symposium are:

- to review the theoretical and experimental developments in intramolecular dynamics and spectroscopy
- to establish new possibilities and directions for the future, in particular to address fundamental questions in chemistry and physics
- to place fundamental studies in the context of a broad range of recent applications in astrophysics, atmospheric chemistry, analytical chemistry, physics, medicine and biology.

The symposium will be devoted to the following themes:

- Molecular structure and dynamics
- High-resolution spectroscopy
- *Ab initio* quantum chemistry
- Unimolecular and bimolecular reaction dynamics
- Mode-selective chemistry
- Intramolecular vibrational energy redistribution (IVR)
- Symmetry selection rules in spectroscopy and molecular reactions
- Dynamics including parity violation
- Spectroscopy and astrophysics
- Spectroscopy and atmospheric chemistry
- Ultrafast dynamics in chemistry and biochemistry
- Applications of spectroscopy in analytical chemistry

Alphabetic list of confirmed speakers:

- Berger Robert, FIAS, J. W. Goethe Universität Frankfurt  
"Quantum chemistry and the violation of fundamental symmetries"
- Boudon Vincent, Université de Bourgogne, Dijon  
"Present status and future prospects of methane spectroscopy for planetary applications"
- Carrington Tucker, Queen's University, Kingston  
"Combining the advantages of an iterative eigensolver and a contracted basis to compute energy levels of CH<sub>5</sub><sup>+</sup>"
- Crim Fleming F., University of Wisconsin, Madison  
"Vibrational control of dissociation and isomerization in gases and liquids"
- Ernst Richard R., ETH Zürich  
"Fourier transformation and spectroscopy, a symbiotic pair"
- Faubel Manfred, MPI für Dynamik und Selbstorganisation, Göttingen  
"Photoelectron studies of protonation/deprotonation in aqueous solutions"
- Flaud Jean-Marie, Laboratoire Inter-Universitaire des Systèmes Atmosphériques, Créteil  
"Infrared laboratory spectroscopy and satellite sensing measurements"
- Hippler Michael, University of Sheffield  
"Quantum chemical studies and vibrational spectroscopy of hydrogen-bonded molecules in the gas phase"
- Jortner Joshua, Tel-Aviv University  
"Ultrafast cluster dynamics in ultraintense laser fields"
- Klopper Willem M., Universität Karlsruhe  
"Slater-type geminals in molecular electronic-structure theory"
- Leutwyler Samuel, Universität Bern  
"Accurate structures of non-polar molecules by femtosecond rotational Raman coherence spectroscopy"
- Lewerenz Marius, Université Marne-La-Vallée  
"Doped helium clusters: Random walks in imaginary and real time"
- Luckhaus David, University of British Columbia, Vancouver  
"Hydrogen exchange tunnelling: Large curvature reaction path dynamics"
- Maier John P., Universität Basel  
"Electronic spectra of carbon chains and rings: Astrophysical relevance?"
- Märk Tilmann, Universität Innsbruck  
"Low energy electron interaction with biomolecules: from gas to condensed phase - from room temperature to near absolute zero."
- Marquardt Roberto, Université Louis Pasteur, Strasbourg  
"Molecular quantum dynamics and molecular kinetics: Challenges and opportunities"
- Miller William H., University of California, Berkeley  
"Using the initial value representation of semiclassical theory to add quantum effects to classical molecular dynamics simulations"
- Monti Oliver L. A., University of Arizona, Tucson  
"Interfacial structure and dynamics in molecular solar cells one molecule at a time"
- Oka Takeshi, University of Chicago  
"Some special intra-molecular dynamics in protonated ions"
- Rizzo Thomas R., Ecole Polytechnique Fédérale de Lausanne  
"Multiple-laser photofragment spectroscopy: From triatomics to helical peptides"
- Sauer Joachim, Humboldt Universität zu Berlin  
"Structure and reactivity of metal oxides: Gas phase clusters compared to solid catalysts"
- Schaefer (III) Henry F., University of Georgia, Athens  
"Lesions in DNA subunits: Foundational studies of molecular structures and energetics"
- Schwarz Helmut, Technische Universität Berlin  
"Ligand and cluster size effects in the metal-mediated activation of methane: A cold approach to a hot problem"
- Snels Marcel, Istituto di Scienze dell'Atmosfera e del Clima (ISAC), Roma  
"Cavity ring down spectroscopy on explosives"

- Suhm Martin, Universität Göttingen  
“Playing with transient chirality in the gas phase”
- Thanopoulos Ioannis, National Hellenic Research Foundation  
“Coherently controlled adiabatic passage between clusters of degenerate quantum states”
- Thiel Walter, MPI für Kohlenforschung, Mülheim an der Ruhr  
“*Ab initio* vibration-rotation spectroscopy”
- Troe Jürgen, MPI für Biophysikalische Chemie, Göttingen  
“Adiabatic channel models in reaction dynamics”
- Tschumper Gregory S., University of Mississippi  
“Generating benchmark interaction energies for weakly bound non-covalent clusters with the 2-body:many-body multicentered QM:QM method”
- van den Bergh Hubert, Ecole Polytechnique Fédérale de Lausanne  
“Photonics in medicine: two examples from bench to bedside”
- von Ragué Schleyer Paul, University of Georgia, Athens / Universität Erlangen-Nürnberg  
“Determination of hydrocarbon cation structures in the gas phase”
- Zare Richard N., Stanford University  
“All about molecular hydrogen”
- Zwier Timothy S., Purdue University, West Lafayette  
“Single-conformation spectroscopy of synthetic foldamers”

Further information can be found online at: [www.latsis2008.ethz.ch](http://www.latsis2008.ethz.ch)

## The organizing committee

Frédéric Merkt  
ETH Zürich  
Laboratorium für Physikalische Chemie  
Wolfgang-Pauli-Strasse 10, 8093 Zürich, Switzerland

Georg Seyfang  
ETH Zürich  
Laboratorium für Physikalische Chemie  
Wolfgang-Pauli-Strasse 10, 8093 Zürich, Switzerland

Renato Zenobi  
ETH Zürich  
Laboratorium für Organische Chemie  
Wolfgang-Pauli-Strasse 10, 8093 Zürich, Switzerland