

Time / Day	Sunday Jan 22 2017	Monday Jan 23 2017	Tuesday Jan 24 2017	Wednesday Jan 25 2017
8:30-10:00		Opening D. Zajfman Roland Wester Holger Krekel	Daniel Neumark Edvardas Narevicius Nimrod Moiseyev	Francesca Calegari Philip Bucksbaum Hot topic 5
10:00-10:30		Coffee break	Coffee break	Coffee break
10:30-12:30		Mathias Weber Jan R. R. Verlet Haruo Shiromaru Hot Topic 1	Stephen Leone Ronni Kosloff Christiane Koch Hot Topic 2	Steen Brondsted Nielsen Anastasia Bochenkova Hot Topic 6 Hot Topic 7
12:30-14:00		Lunch break	Lunch break	Lunch break
14:00-15:30		Igor Schapiro Thomas Pfeifer Noam Agmon	Sharly Fleischer Brett Esry Hot Topic 3	Valerie Blanchet Itzik Ben-Itzhak Lars H. Andersen
15:30-16:00		Coffee break	Coffee break	Hot Topic 8
16:00-17:30	Registration/reception	Poster session	Henrik Cederquist Lorenz Cederbaum Hot Topic 4	Coffee break Round table discussion
17:30-18:00		Poster session		
18:00-20:00	Registration/reception	dinner	Conference dinner	dinner

Full program

From Ultrafast to Ultralow Dynamics in Molecules and Clusters

January 23-25, 2017

Monday, January 23

- 08:50-10:30 **Opening Session 1**
Dedicated to Prof. Dirk Schwalm
Chair: Daniel Zajfman (Weizmann Institute of Science)
- 08:50-09:00 **Organizers**
Workshop Opening
Welcome and Dirk Schwalm dedication
- 09:00-09:10 Daniel Zajfman (Weizmann Institute of Science)
In memory of Dirk Schwalm
- 09:10-09:20 Uzy Smlansky (Weizmann Institute of Science)
In memory of Dirk Schwalm
- 09:20-09:55 Roland Wester (Universität Innsbruck)
Imaging direct dynamics in ion-molecules reactions
- 09:55-10:30 Holger Krike (MPI-K Heidelberg)
Experiments with stored ions of astrophysical relevance: reaction dynamics and spectroscopy
- 10:30-11:00 **Coffee break**
- 11:00-13:00 **Session 2**
Chair: Daniel Strasser (Hebrew University of Jerusalem)
- 11:00-11:20 Alexander Kaiser (University of Innsbruck)
Cluster growth dynamics in helium nanodroplets: recent insights from experiment and theory
- 11:20-11:50 Edvardas Narevicius (Weizmann Institute of Science)
Ultralow and cold molecular collisions



- 11:50-12:10 Sebastian George (MPI-K Heidelberg)
Dynamic processes of anionic clusters
- 12:10-12:40 Mathias Weber (JILA, Colorado)
Effects of excited state dynamics on the linewidth of electronic spectra of large molecular ions
- 12:40-13:00 Michael Gatchell (Stockholm University)
Ions colliding with clusters of small hydrocarbon chains – a pathway to aromatic rings?
- 13:00-14:00 **Lunch Break**
- 14:00-15:30 **Session 3**
Chair: Vaibhav Prabhudesai (TIFR Mumbai)
- 14:00-14:30 Lars H. Andersen (Aarhus University)
Excited-state dynamics studied by fs pump-probe techniques at an ion storage ring
- 14:30-15:00 Jan R. R. Verlet (Durham University)
Femtosecond photoelectron spectroscopy of anions
- 15:00-15:30 Philip Bucksbaum (Stanford University)
Opportunities and challenges for ultrafast molecular movies at x-ray free electron lasers
- 15:30-16:00 **Coffee break**
- 16:00-18:00 **Poster Session**
- 18:00-20:00 **Dinner**

Tuesday, January 24

- 09:00-10:30 **Session 4**
Chair: Eric Charron (University Paris-Sud)
- 09:00-09:30 Daniel Neumark (UC Berkeley)
Nonlinear spectroscopy with attosecond laser pulses
- 09:30-10:00 Francesca Calegari (Politecnico Milano)
Attosecond electron dynamics in molecules and nanoparticles
- 10:00-10:30 Thomas Pfeifer (MPI-K Heidelberg)
Attosecond XUV spectroscopy and femtosecond X-ray imaging of atomic and molecular dynamics in strong laser fields
- 10:30-11:00 **Coffee Break**
- 11:00-13:00 **Session 5**
Chair: Barry Brunner (Weizmann Institute of Science)
- 11:00-11:30 Stephen Leone (UC Berkeley)
An X-ray revolution in molecular dynamics
- 11:30-12:00 Oren Cohen (Technion, Haifa)
Symmetries in high harmonic generation
- 12:00-12:30 Lorenz Cederbaum (University of Heidelberg)
ICD and its exploration by short, intense and coherent light pulses
- 12:30-13:00 Michael Krueger (Weizmann Institute of Science)
Attosecond multi-dimensional spectroscopy
- 13:00-14:00 **Lunch Break**

- 14:00-15:30 **Session 6**
Chair: Geroen Niedner-Schatteburg (University of Kaiserslautern)
- 14:00-14:30 Henrik Cedergust (Stockholm University)
Ultrafast and slow dynamics in molecules and clusters in collisions with ions or atoms
- 14:30-15:00 Haro Shimomaru (Tokyo Metropolitan University)
Hot carbon cluster and polyene anions stored in the ring
- 15:00-15:30 Noam Agmon (Hebrew University of Jerusalem)
Structure and spectroscopy of M+(H₂O)_n clusters (M=Na vs. H): Not always the lowest-energy isomer
- 15:30-16:00 **Coffee Break**
- 16:00-17:30 **Session 7**
Chair: Zohar Amiry (Technion, Haifa)
- 16:00-16:30 Calinhe Bond (Queens University, Belfast)
An instrument for measuring static and dynamic chirality in molecules
- 16:30-17:00 Christiane Koch (Universität Konstanz)
Theory of photoelectron angular distributions: From understanding photoelectron circular dichroism to strong field control
- 17:00-17:30 Valerie Blanchet (CELIA, Bordeaux)
Toward a femtochemistry of chirality
- 18:30-20:30 **Conference Dinner**
Weizgal House, President's Residence

Wednesday, January 25

- 09:00-10:30 **Session 8**
Chair: Nirith Dudovich (Weizmann Institute of Science)
- 09:00-09:30 Brett Esry (Kansas State University)
Attoseconds aren't just for electrons anymore
- 09:30-10:00 Ronnie Kostloff (Hebrew University of Jerusalem)
Coherent control of binary reactions: the photoassociation route
- 10:00-10:30 Itzhak Ben-Itzhak (Kansas State University)
Ultrashort molecular process
- 10:30-11:00 **Coffee Break**
- 11:00-13:00 **Session 9**
Chair: David Tanner (Weizmann Institute of Science)
- 11:00-11:30 Nizarad Malysev (Technion, Haifa)
Near field measurements of the non-observable even-order harmonics
- 11:30-11:50 Markus Koch (Graz University of Technology)
Non-adiabatic molecular photofragmentation dynamics studied by time-resolved photoelectron-photoion coincidence spectroscopy
- 11:50-12:20 Sharyi Fleischer (Tel Aviv University)
Dipole- vs. Polarizability-induced rotations of asymmetric molecules
- 12:20-12:40 Ilya Averbukh (Weizmann Institute, Rehovot)
Laser-induced echoes: from molecular alignment to harmonics generation in free electron lasers

- 12:40-13:00 Lili Musbat (Bar-Ilan University, Ramat-Gan)
Watching isolated molecules change their shape
- 13:00-14:00 **Lunch Break**
- 14:00-16:00 **Session 10**
Chair: Roland Wester (Universität Innsbruck)
- 14:00-14:30 Anastasia Bochenkova (Moscow State University)
Ultrafast resonant photoresponse of isolated biological chromophore
- 14:30-15:00 Igor Shapira (Hebrew University of Jerusalem)
Insight into the thermal and light-activated isomerization in rhodopsin from QM/MM simulations
- 15:00-15:30 Steen Brøndsted Nielsen (Aarhus University)
Luminescence from molecular ions in vacuo
- 15:30-16:00 Avi Peer (Bar-Ilan University, Ramat-Gan)
Precision measurement and control of ultrafast molecular dynamics via coherent amplification in an optical oscillator
- 16:00-16:30 **Coffee Break**
Accelerator
- 16:30-17:30 **Round Table Discussion**
Andreas Wolf (MPI-K Heidelberg)
Accelerator
- 18:00-20:00 **Dinner**
Accelerator

Local organizing committee

Oded Heber (Chair)
Weizmann Institute of Science

Yoni Tokar (Co Chair)
Bar-Ilan University

Zohar Amiry
Technion

Barry Bruner
Weizmann Institute of Science

Nirith Dudovich
Weizmann Institute of Science

Daniel Strasser
Hebrew University

Daniel Zajfman
Weizmann Institute of Science

International advisory committee

Itzhak Ben-Itzhak
Kansas State University

Steen Brøndsted Nielsen
Aarhus University

Olya Smlimova
Max Born Institute Berlin

Andreas Wolf
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Henning Zettergren
Stockholm University

Organizers

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Weizmann Institute of Science

Department of Complex Systems

Department of Particle Physics and
Astrophysics

The Crown Photonics Center

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