



Scientific program

Sunday, June 11

16.00-19.00 **Welcome reception**

Monday, June 12

8.00 **Start of Registration**

9.00-9.15 Opening

Session 1: Solvation

9.15-9.40 Mo-1 Short-Range Cooperative Slow-Down of Water Solvation Dynamics Around SO_4^{2-} - Mg^{2+} Ion Pairs
Achintya Kundu (Max Born Institute, Berlin, Germany)

9.40-10.05 Mo-2 Solvation and Intermolecular Hydrogen-bonding in Antimicrobial Bottlebrush Polymers Studied by FTIR and 2D-IR Spectroscopy
Henrike Müller-Werkmeister (University of Potsdam, Potsdam, Germany)

10.05-10.30 Mo-3 The Ionic Conduction Mechanism in High Concentration Lithium Ion Electrolytes
Daniel Kuroda (Louisiana State University, Baton Rouge, USA)

10.30-11.00 Coffee break

Session 2: Microscopy

11.00-11.40 Mo-4 Stimulated Raman Imaging with Single Molecule Sensitivity and Nanoscale Resolution
Invited: Wei Min (Columbia University, New York, USA)

11.40-12.05 Mo-5 Rapid Field-Resolved Infrared Fingerprinting of Particles in Flow
Daniel Gerz (IPHT, Jena, Germany)

12.05-12.30 Mo-6 Two- and Three-Dimensional Infrared and Raman Diffusion-Ordered Spectroscopy Reveals Molecular Size and Structure
Sander Woutersen (University of Amsterdam, Amsterdam, the Netherlands)

12.30-14.00		Lunch
		Session 3: New techniques
14.00-14.40	Mo-7	Manipulating Matter by Strong Coupling to the Vacuum Electromagnetic Field Invited: Thomas Ebbesen (University of Strasbourg, Strasbourg, France)
14.40-15.05	Mo-8	Selective IR Pre-Excitation Combined with Electronic One- Or Two-Photon Excitation Opens Unique Possibilities for TRVS Jens Bredenbeck (Goethe Universität Frankfurt, Frankfurt, Germany)
15.05-15.30	Mo-9	Measuring the Sign of Excited-State Displacements by Impulsive Vibrational Spectroscopy Giovanni Batignani (Sapienza University of Rome, Rome, Italy)
15.30-16.00		Tea break
		Session 4: Solid state
16.00-16.25	Mo-10	New Opportunities for Ultrafast 2D-IR Spectroscopy in Zeolite Catalysis Research Paul Donaldson (Rutherford Appleton Laboratory, Oxfordshire, UK)
16.25-16.50	Mo-11	Understanding the Emergence of the Boson Peak in Molecular Glasses Mario González-Jiménez (University of Glasgow, Glasgow, UK)
16.50-17.15	Mo-12	It's Not That Hard: Unraveling Vibrational Dynamics and Interactions in Diamond Defects Terng Junn Keat (University of Warwick, Coventry, UK)
17.15-17.40	Mo-13	Excited State Evolution in Low Bandgap Organic Semiconductors Sophia C. Hayes (University of Cyprus, Nicosia, Cyprus)

Tuesday, June 13

8.30		Registration desk open
		Session 5: Surfaces
9.00-9.40	Tu-1	Ultraviolet Resonance Femtosecond Time-resolved Raman Spectroscopy of Complex and Fundamental Molecules Invited: Tahei Tahara (RIKEN, Wako, Saitama, Japan)
9.40-10.05	Tu-2	Development of Interferometric 2D Heterodyne-detected Vibrational Sum-frequency Generation Spectroscopy Applicable to the Air/Water Interface Woongmo Sung (RIKEN, Wako, Saitama, Japan)
10.05-10.30	Tu-3	Probing Aqueous Solvation at the Electrochemical Interface with 2D Infrared Spectroscopy Nicholas Lewis (The University of Chicago, Chicago, USA)
10.30-11.00		Coffee break

		Session 6: Surfaces
11.00-11.40	Tu-4	Towards Understanding the Mechanism of Water Splitting Invited: Ellen Backus (University of Vienna, Vienna, Austria)
11.40-12.05	Tu-5	Tuning the Interfacial Water Dynamics with Voltage-Controlled Surface-Enhanced 2DIR Martin Zanni (University of Wisconsin, Madison, USA)
12.05-12.30	Tu-6	Surface-Specific Vibrational Spectroscopy of Interfacial Water at an Graphene Electrode Mischa Bonn (Max Planck Institute for Polymer Research, Mainz, Germany)
12.30-14.00		Lunch
		Session 7: Complexes
14.00-14.25	Tu-7	Understanding Hydrogenases by Experimental and Computational 2D-IR Spectroscopy Marius Horch (Freie Universität Berlin, Berlin, Germany)
14.25-14.50	Tu-8	Iron-Complexes – Femtosecond Infrared Spectroscopy Resolving High-Spin Crossover Markerbands Jose Luis Perez Lustres (Universidad de Santiago de Compostela, Santiago de Compostela, Spain)
14.50-15.15	Tu-9	Pre-Thermalization Dynamics of [Ru(bpy) ₃] ²⁺ in Water Adrian Buchmann (Ruhr-Universität Bochum, Bochum, Germany)
		Company presentations
15.15-15.25		Phasetech
15.25-15.35		Fastlite
15.35-15.45		Light Conversion
15.45-16.00		Tea break
16.00-18.30		Poster session 1

Wednesday, June 14

8.30		Registration desk open
		Session 8: DNA, RNA, Molecular motors
9.00-9.40	We-1	Resolving Light-Activated Processes of DNA Bound Transition Metal Polypyridyl Complexes, Insights for Diagnostics and Therapeutics Citation of DNA Invited: Susan Quinn (University College Dublin, Dublin, Ireland)
9.40-10.05	We-2	Measuring RNA UNCG Tetraloop Refolding Dynamics Using Temperature-Jump/Drop Infrared Spectroscopy Neil Hunt (University of York, York, UK)
10.05-10.30	We-3	Molecular Movies: Ultrafast Raman Snapshots of Unidirectional Motors Stephen Meech (University of East Anglia, Norwich, UK)

10.30-11.00		Coffee break
		Session 9: Photoexcitations
11.00-11.40	We-4	Excited-State Intramolecular Charge Transfers Studied by Time-Resolved Raman Spectroscopy Invited: Yoonsoo Pang (Gwangju Institute of Science and Technology, Gwangju, Korea)
11.40-12.20	We-5	Towards the Study of Irreversible Reactions in Proteins in Living Cells Invited: Tilman Kottke (Bielefeld University, Bielefeld, Germany)
12.20-12.45	We-6	Steering the Multiexciton Generation in Slip-Stacked Perylene Dye Array via Exciton Coupling Dongho Kim (Yonsei University, Seoul, Korea)
12.45-14.00		Lunch
		Session 10: X-ray and Proton transfer
14.00-14.40	We-7	X-Ray Liquidography Visualizes Molecular Structural Dynamics Invited: Hyotcherl Ihee (Korea Advanced Institute of Science and Technology, Daejeon, Korea)
14.40-15.05	We-8	Ultrafast Proton Transport Probed with IR and Soft-X-Ray Spectroscopy Erik T. J. Nibbering (Max Born Institute, Berlin, Germany)
15.05-15.30	We-9	Femtosecond Study of Proton Transfer Between a Weak Acid and a Strong Photobase Balazs Antalicz (AMOLF, Amsterdam, the Netherlands)
15.30-16.00		Tea break
16.00-18.30		Poster session 2

Thursday, June 15

8.30		Registration desk open
		Session 11: Protein spectroscopy and dynamics
9.00-9.40	Th-1	Electric Fields and Catalysis Probed by the Vibrational Stark Effect: a Foundational Concept in Chemical Reactivity Invited: Steven Boxer (Stanford University, Stanford, USA)
9.40-10.05	Th-2	Time-Resolved Resonance Raman Observation of Key Configurational Features of the Retinal Chromophore in Inward Proton-Pumping Rhodopsins Yasuhisa Mizutani (Osaka University, Osaka, Japan)
10.05-10.30	Th-3	FSRS Reveals Sequential All- <i>trans</i> to 13- <i>cis</i> to 11- <i>cis</i> Photoisomerization in Bestrhodopsin, an Unusual Red-Absorbing Microbial Ion Channel John Kennis (VU Amsterdam, Amsterdam, the Netherlands)
10.30-11.00		Coffee break

		Session 12: Protein spectroscopy and dynamics
11.00-11.40	Th-4	IR Spectroscopy of Protein-Protein Interactions and Binding Dynamics Invited: Andrei Tokmakoff (University of Chicago, Chicago, USA)
11.40-12.05	Th-5	Charge Separation in the Photosystem II Reaction Center Resolved by Multispectral Two-Dimensional Electronic Spectroscopy Jennifer Ogilvie (University of Michigan, Ann Arbor, USA)
12.05-12.30	Th-6	Multiscale Time-Resolved Vibrational Spectroscopy of Fatty Acid Photodecarboxylase Mutants Manuel Joffre (Institut Polytechnique de Paris, Paris, France)
12.30-14.00		Lunch
		Session 13: Membranes
14.00-14.40	Th-7	Infrared Nanoscopy and Tomography of Intracellular Structures Invited: Joachim Heberle (Freie Universität Berlin, Berlin, Germany)
14.40-15.05	Th-8	Membrane Dynamics of Photoreceptors Resolved by Step-Scan FTIR and QCL Spectroscopy Karin Hauser (University of Konstanz, Konstanz, Germany)
15.05-15.30	Th-9	Probing Hydrophobic Region of a Lipid Bilayer at Specific Depth with 2DIR Spectroscopy Md Muhaiminul Islam (Tulane University, New Orleans, USA)
15.30-16.00		Tea break
		Transfer to KIT
17.30-22.00		Conference dinner (prizes, announcement TRVS2025)

Friday, June 16

8.30		Registration desk open
		Session 14: Photoinduced reactions
9.00-9.40	Fr-1	Excited-State Resonance Raman Spectroscopy as a Probe of the Ultrafast Dynamics in Higher-Lying Electronically Excited States Invited: Chris Elles (University of Kansas, Lawrence, USA)
9.40-10.05	Fr-2	Ultrafast Dynamics of Photochemical Nitrile Imine Formation Stefan Flesch (Rheinische Friedrich-Wilhelms-Universität, Bonn, Germany)
10.05-10.30	Fr-3	Photoinduced Non-Equilibrium Vibrational Dynamics in Solution: Theory and Modeling Strategies Nadia Rega (University of Napoli Federico II, Naples, Italy)
10.30-11.00		Coffee break

Session 15: Plasmons and polaritons

11.00-11.40	Fr-4	Ultrafast SERS Probing of Plasmon-to-Molecule Charge Transfer Reactions Invited: Renee Frontiera (University of Minnesota, Minneapolis, USA)
11.40-12.05	Fr-5	Ultrafast Vibrational Decay of Few Molecules in Plasmon Nanogaps Fiona Bell (University of Cambridge, Cambridge, UK)
12.05-12.30	Fr-6	Double-Quantum Coherence 2D-IR Spectroscopy of Vibrational Polaritons Kevin Kubarych (University of Michigan, Ann Arbor, USA)
12.30-12.40		Closing remarks and announcement TRVS2025
12.40-14.00		Lunch
14.00		Departure