

Schedule for Vibrational Dynamics workshop
07/08/2019 - 07/12/2019

Sunday July 7,

Meet-and-greet with badge pick-up 5:00-6:30 pm at Oak Restaurant, located at the base of the Gondola 250 W. San Juan Avenue (also known as Gus's Way)

MONDAY, July 8

8:00 – 8:50 Breakfast served at Telluride Intermediate School

8:50 – 9:00 Welcoming remarks

9:00 – 9:35 Andrei Tokmakoff, Vibrational spectroscopy and dynamics of aqueous electrolytes.

8:35-9:45 Discussion

9:45 – 10:20 Thomas Elsaesser, 2D-IR spectroscopy of ionic interactions in hydrated dimethyl-phosphate and RNA

10:20-10:30 Discussion

10:30 – 10:45 Coffee break

10:45 – 11:20 Ellen Backus (University of Vienna), Structure and dynamics of interfacial salty water

11:20-11:30 Discussion

11:30 – 12:05 Daniel Kuroda, Structure and dynamics of ionic and non-ionic solutes in organic solvents

12:05-12:15 Discussion

12:15 – 1:30 Lunch served at workshop site

1:30 – 2:05 Minhaeng Cho, Nonlinear Spectroscopy with Multiple Phase-Stabilized Mode-Locked Lasers

2:05-2:15 Discussion

2:15 – 2:50 Tahei Tahara, Structural dynamics of bond formation in metal complex oligomers elucidated by femtosecond time-resolved impulsive stimulated Raman spectroscopy

2:50-3:00 Discussion

3:00 – 3:20 Coffee break

3:20 – 3:55 Maxim Grechko, Inhomogeneity of terahertz vibrations in hydration shell of halide anions

3:55-4:05 Discussion

4:05 – 4:40 Klaas Wynne, Symmetry + Kerr effect reaches parts other terahertz spectroscopies cannot reach

4:40-4:50 Discussion

TUESDAY July 9

7:45-8:30 Breakfast served at Telluride Intermediate School

8:30 – 9:05 Lev Chuntonov, 2DIR spectroscopy of molecules on surface of metal nanostructures

9:05-9:15 Discussion

9:15 – 9:50 Wei Xiong, 2DIR of molecular vibrational polaritons
9:50-10:00 Discussion

10:00 – 10:35 Jahan Dawlaty, Chemistry at Metal-Liquid Interfaces: Solvation, Electric Fields, Frustrated Bonds, and Surfactants Viewed by Vibrational Spectroscopy
10:35-10:45 Discussion

10:45 – 11:00 Coffee break

11:00 – 11:35 Kevin Kubarych, 2D-IR on Externally Manipulated Molecules: Spectroelectrochemistry and Strong Coupling
11:35-11:45 Discussion

11:45 – 12:20 Tanja Cuk, Resolving chemical bond dynamics at an electrode surface
12:20-12:30 Discussion

Lunch on your own.

Afternoon free for conversations, collaborations, and outdoor explorations.

6:30 PM TSRC Town Talk by Yogesh Surendranath from MIT is titled "Using Nature's Blueprint to Build a Sustainable Energy Future" Telluride Conference Center in Mountain Village.

WEDNESDAY July 10

8:00-9:00 Breakfast served at Telluride Intermediate School
Morning free for conversations, collaborations, and outdoor explorations.
Lunch on your own.

1:30 – 2:05 Jens Bredenbeck, Vibrational Dynamics of Non-canonical Amino Acids in Proteins: Vibrational Energy Transfer and Protein Dynamics
2:05-2:15 Discussion

2:15 – 2:50 Yasuhisa Mizutani, Watching energy flow in proteins using time-resolved ultraviolet resonance Raman spectroscopy
2:50-3:00 Discussion

3:00 – 3:35 Igor Rubtsov, Ballistic energy transfer in chains via perturber and vibrational population inversion
3:35-3:45 Discussion

3:45 – 4:00 Coffee break

4:00 – 4:35 David Leitner, Relations between protein-water equilibrium dynamics and rates of vibrational energy transfer
4:35-4:45 Discussion

4:45 – 5:20 Alex Burin, Localized and Chaotic Dynamics of Anharmonic Molecular Vibrations in a Quantum Fermi–Pasta–Ulam Problem as a Toy Model for a poly-atomic molecule
5:20-5:30 Discussion

6–8 PM Picnic – opened to all TSRC participants and their guests.

THURSDAY July 11

8:00-9:00 Breakfast served at Telluride Intermediate School

Morning free for conversations, collaborations, and outdoor explorations.

Lunch on your own.

1:30 – 2:05 Poul Petersen, Proton transfer reactions probed by continuum mid-IR spectroscopy
2:05-2:15 Discussion

2:15 – 2:50 Neil Hunt, Structural and dynamic implications of ligand binding to DNA revealed by ultrafast
(2D)IR spectroscopy
2:50-3:00 Discussion

3:00 – 3:35 Carlos Baiz, Interfacial H-bond dynamics in reverse micelles: the role of surfactant
heterogeneity
3:35-3:45 Discussion

3:45 – 4:00 Coffee break

4:00 – 4:35 Luis Velarde, Heterogeneity at the solid/liquid interface: solvent mixtures, polymers, and
induced ordering
4:35-4:45 Discussion

4:45 – 5:20 Jan Helbing, Exploiting symmetry breaking to study solvation dynamics with 2D-IR
spectroscopy
5:20-5:30 Discussion

7 pm Group dinner at Floradora Restaurant 103 W Colorado Ave.

FRIDAY July 12

8:00-9:00 Breakfast served at Telluride Intermediate School

9:00 onward: informal conversation in meeting room for those interested and available; coffee served throughout