**Organizers:** Gerhard Stock and Timothy Zwier

**Location:** Telluride Intermediate School @ 725 W. Colorado

**TSRC Hosts:** TSRC Exec Director Nana Naisbitt 970-708-0004

and Asst Director Rory Sullivan 970-708-0004

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| **Monday morning, July 22, 2013**  ***Energy and Charge Transfer*** | |
| 7:30 – 8:00 | **Breakfast** @ TSRC for participants |
| 8:00 - 8:45 | David Leitner  *Vibrational energy transfer across molecular interfaces* |
| 8:45 - 9:30 | Jens Bredenbeck  *IVR in multidimensional vibrational spectroscopy: a curse and blessing* |
| 9:30 - 10:15 | Igor Rubtsov  *Ballistic energy transport in molecules* |
| 10:15 - 10:45 | **Coffee Break** |
| 10:45 - 11:30 | Munira Khalil  *The role of high frequency vibrational modes in charge transfer processes* |
| 11:30 - 12:15 | Josef Wachtveitl  *Ultrafast interfacial electron transfer in nanoscale systems* |
| 12:15 - 1:30 | **Catered Lunch @ TSRC** for participants |
| **Monday afternoon**  ***Modeling vibrational spectra*** | |
| 1:30 - 2:15 | Ned Sibert  *Theoretical analysis of conformational specific CH stretch IR spectra* |
| 2:15 - 3:00 | Christoph Jacob  *Theoretical vibrational spectroscopy with localized modes* |
| 3:00 - 3:30 | **Coffee Break** |
| 3:30 - 4:15 | Thomas Jansen  *Simulating 2DIR and 2DSFG of membrane proteins* |
| 4:15 - 5:00 | Hajime Torii  *The role of delocalized electronic motions in infrared and terahertz intensities and related properties* |

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| **Tuesday afternoon, July 23, 2013**  ***Water, H-bonding, Relaxation*** | |
| 1:30 - 2:15 | Jim Skinner  *Theoretical vibrational spectroscopy* |
| 2:15 - 3:00 | Erik Nibbering  *The (non)sense of extracting hydrogen bond structure from linear and nonlinear IR spectroscopy of hydrogen stretching oscillators* |
| 3:00 - 3:30 | **Coffee Break** |
| 3:30 - 4:15 | Shinji Saito  *Dynamics of water by analyzing third-order nonlinear IR spectroscopy* |
| 4:15 - 5:00 | Eitan Geva  *Vibrational energy relaxation of the hydroxyl stretch in alcohols and its spectroscopic signature: A mixed quantum-classical study* |
| 6:00 - 7:15 | **TSRC Town Talk**  *At the Historic Sheridan Opera House @ 110 N. Oak St.* |
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| **Wednesday afternoon, July 24, 2013**  ***Complex Systems*** | |
| 1:30 - 2:15 | Martin Zanni  *Stop looking down! Measuring and interpreting transition dipole strengths from 1D and 2D IR of peptides* |
| 2:15 - 3:00 | John Straub  *Role of sequence, confinement, and hydration on the structure of an alanine-rich peptide in a reverse micelle environment* |
| 3:00 - 3:30 | **Coffee Break** |
| 3:30 - 4:15 | Karin Hauser  *Peptide dynamics studied with temperature-jump IR-spectroscopy* |
| 4:15 - 5:00 | Ruth Signorell  *Concerted motions in ultrafine aerosol particles* |
| 6:00 - 9:00 | **TSRC Picnic**  *Picnic at the Ah Haa School @ 300 S. Townsend, family and guests welcome free of charge* |

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| **Thursday morning, July 25, 2103**  ***Dynamics and Conformations*** | |
| 7:30 – 8:00 | **Breakfast** @ TSRC for participants |
| 8:00 - 8:45 | Martin Gruebele  *Quantum states near dissociation protected from vibrational energy flow* |
| 8:45 - 9:30 | Gary Douberly  *Stark Spectroscopy and the Vibrational Dynamics of HOOO* |
| 9:30 - 10:15 | Christian Müller  *Development and Testing of Models for Amide I/II based on Gas-Phase Single-conformation IR spectra* |
| 10:15 - 10:45 | **Coffee Break** |
| 10:45 - 11:30 | Hiroshi Fujisaki  *Theoretical approaches to vibrational quantum dynamics and conformational change of molecules* |
| 11:30 - 12:15 | Timothy Zwier  *Multiple Resonance Methods for Conformation-Specific Vibrational Spectroscopy and Dynamics* |
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| **Friday morning, July 26, 2013**  ***Ions, Solvation and Dynamics*** | |
| 7:30 – 8:00 | Breakfast @ TSRC for participants |
| 8:00 - 8:45 | Markus Meuwly  *Vibrational Dynamics of CN- in the Condensed Phase* |
| 8:45 - 9:30 | Martina Havenith  *Solvation of anions and cations observed in the IR and the THz range* |
| 9:30 - 10:15 | Ehud Pines  *FTIR and NMR Study of Protonated Water Clusters in Acetonitrile* |
| 10:15 - 10:45 | **Coffee Break** |
| 10:45 - 11:30 | Mark Johnson  *All flavors of anharmonicity add spice to the ionic hydrogen bond soup* |
| 11:30 - 12:15 | Gerhard Stock  *Nonadiabatic vibrational dynamics* |