**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* |