



Organizers: Ferdinand Evers, Michael Thoss, and Latha Venkataraman

Telluride Science Host: Mark Kozak 970-708-4426

Location: Telluride Intermediate School, 725 W Colorado Ave, Telluride, CO 81435

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|----------|-------------------|---|-------------------------------|-----------------|--------------------|
| 8:00 am | Breakfast | Breakfast | Breakfast | Breakfast | Breakfast |
| 8:30 am | 8:00-9:00 | 8:00-9:00 | 8:00-9:00 | 8:00-9:00 | 8:00-9:00 |
| 9:00 am | Opening | M. Thoss | Hiking/discussions | L. Venkataraman | Hiking/discussions |
| 9:30 am | J. van Ruitenbeek | 9:00-9:45 | | 9:00-9:45 | |
| 10:00 am | D. Bürgler | E. Rabani | | Z. Liu | |
| 10:30 am | 9:55-10:40 | 9:45-10:30 | | 9:45-10:30 | |
| 11:00 am | Coffee Break | Coffee Break | | Coffee Break | |
| 11:30 am | F. Evers | V. Kaliginedi | | G. Cohen | |
| 12:00 am | 11:10-11:55 | 11:00-11:45 | | 11:00-11:45 | |
| 12:30 am | Lunch Break | Lunch Break | | U. Peskin | |
| 1:00 pm | | | | 11:45-12:30 | |
| 1:30 pm | | | | Lunch Break | |
| 2:00 pm | | | | J. Repp | |
| 2:30 pm | M. Brandbyge | M. Galperin | 13:30-14:15 | | |
| 3:00 pm | 14:00-14:45 | 14:00-14:45 | B. Yan | | |
| 3:30 pm | M. Inkpen | C. Stafford | 14:15-15:00 | O. Tal | |
| 4:00 pm | 14:45-15:30 | 14:45-15:30 | Coffee Break | 14:30-15:15 | |
| 4:30 pm | Coffee Break | Coffee Break | P. Jelinek | T. Frederiksen | |
| 5:00 pm | | | 15:30-16:15 | 15:15-16:00 | |
| 5:30 pm | | | | Coffee Break | |
| 6:00 pm | M. Kamenetska | N. Hatano | C. Hermann | J.I. Pascual | |
| 6:30 pm | 16:00-16:45 | 16:00-16:45 | 16:15-17:00 | 16:30-17:15 | |
| 7:00 pm | | | | | |
| 7:30 pm | | | Telluride Science Picnic | | |
| 8:00 pm | Group dinner | | 17:30-19:30 | Group dinner | |
| | 18:00-20:00 | | Telluride Intermediate School | 18:00-20:00 | |
| | | Town Talk | | | |
| | | 18:30-19:30 | | | |
| | | Telluride Conference Center in Mountain Village | | | |

Monday

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|-------------------|--------------------|--|
| 9:00–9:10 | | Opening |
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| Morning Session | | Chair: Latha Venkataraman |
| 9:10–9:55 | Jan van Ruitenbeek | CISS: What do we really know and understand? |
| 9:55–10:40 | Daniel Bürgler | Enantiospecific adsorption on a ferromagnetic surface at the single-molecule scale: Heptahelicene on Co(111) nanoislands |
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| 10:40–11:10 | | Coffee Break |
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| 11:10–11:55 | Ferdinand Evers | Aspects of transport in chiral molecules |
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| Afternoon Session | | Chair: Jan van Ruitenbeek |
| 14:00–14:45 | Mads Brandbyge | Spin manipulation and transport in molecular contacts and 2D networks |
| 14:45–15:30 | Michael Inkpen | Forming junctions with non-Au metal electrodes under an inert atmosphere |
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| 15:30–16:00 | | Coffee Break |
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| 16:00–16:45 | Masha Kamenetska | Assembly and electron transport of molecular junctions containing transition metal atoms |

Tuesday

Morning Session

Chair: Thomas Fredriksen

9:00–9:45 Michael Thoss

Current-induced bond-rupture in molecular junctions

9:45–10:30 Eran Rabani

Coherent electron transfer in quantum dot molecules

10:30–11:00

Coffee Break

11:00–11:45 Veerabhadrarao Kaliginedi

Unveiling an unprecedented electrical conductance in non-conducting polymers via vibrational strong coupling

Afternoon Session

Chair: Michael Thoss

14:00–14:45 Michael Galperin

Quantum thermodynamics of nanoscale molecular systems: Inside-outside perspective

14:45–15:30 Charles Stafford

How to partition energy and entropy in time-dependent open quantum systems

15:30–16:00

Coffee Break

16:00–16:45 Naomichi Hatano

Quantum transport in non-Hermitian systems on the Bethe lattice

Wednesday

Afternoon Session

Chair: Masha Kamenetska

13:30–14:15 Jascha Repp Single-molecule electron spin resonance by means of scanning force microscopy

14:15–15:00 Binghai Yan Topology, orbital and spin in chiral molecular devices

15:00–15:30

Coffee Break

15:30–16:15 Pavel Jelinek Multi-orbital Kondo screening in strongly correlated polyradical organic molecules

16:15–17:00 Carmen Hermann Atomistic simulations for molecular electronics and spintronics

Thursday

Morning Session

Chair: Charles Stafford

9:00–9:45 Latha Venkataraman Electroluminescence in nanoscale junctions

9:45–10:30 Zhenfei Liu Towards accurate calculations of covalent molecular junctions

10:30–11:00

Coffee Break

11:00–11:45 Guy Cohen Quantum Monte Carlo in the steady state

11:45–12:30 Uri Peskin Emergence of Boltzmann subspaces in molecular junctions far from equilibrium

Afternoon Session

Chair: Ferdinand Evers

14:00–14:45 Oren Tal Two unknown flicker noise forms in molecular junctions and their implications

14:45–15:30 Thomas Frederiksen Hyperfine interactions in graphene nanostructures

15:30–16:00

Coffee Break

16:00–16:45 Jose Ignacio Pascual Quantum transport through suspended graphene nanoribbons