

Telluride Workshop

“Electronic and Structural Dynamics in Hybrid Perovskites: Theory Meets Experiment”

Location:

TSRC Host:

Breakfast will be served daily before the talks at the workshop location

Lunches are NOT included in registration

The scientific program starts at 9:00 am on Tuesday, July 12 and ends at 5: 15 pm on Friday, July 15. The first half day of Thursday, July 14 is reserved for group discussions, collaborations, group hike, etc.

Each talk is scheduled for 40 minutes +5 for discussion. Interruptions and questions during talks are encouraged.

We have 27 presentations: 8 on Tuesday and Wednesday, 7 on Friday, and 4 on Thursday

There is a “town talk” on Tuesday evening and a TSRC Picnic/BBQ on ????

Tuesday, July 12

Morning

- 8:30 am *Breakfast*
- 9:00 am Jacky Even
“Influence of molecular disorder on the structural and optoelectronic properties of halide perovskites”
- 9:45 am Hemamala Karunadasa
TBA
- 10:30 am *Coffee Break*
- 10:45 am Laurent Pedesseau
“Tuning the dielectric properties of the 2D-3D halide perovskites by chemical engineering: a theoretical approach”
- 11:30 am Leeor Kronik
“Hybrid organic-inorganic perovskites on the move: theory of selected dynamic structural effects”
- 12:15 pm *Lunch (on your own)*

Afternoon

- 2:00 pm Sam Stranks
“The origins of non-radiative decay in hybrid perovskite films”
- 2:45 pm Jared Crochet
“The photo-physics and optoelectronic properties of large grain hybrid perovskites”
- 3:30 pm *Coffee Break*
- 3:45 pm Yasuhiro Yamada
“Dynamical behaviors of photo carriers in $\text{CH}_3\text{NH}_3\text{PbI}_3$ thin films and single crystals”
- 4:30 pm Carlito Ponseca
“Ultrafast charge carrier dynamics in organo-metal halide perovskite probed by time-resolved THz spectroscopy”
- 6:00 pm Town Talk, Telluride Conference Center in Mountain Village

Wednesday, July 13

Morning

- 8:30 am *Breakfast*
- 9:00 am Constantinos Stoumpos
“Inorganic chemistry and solar cells of hybrid halide perovskites”
- 9:45 am Marcelo Carignano
“First principles molecular dynamics of hybrid perovskites: The case of MAPI, FAPI and their alloys”
- 10:30 am *Coffee Break*
- 10:45 am Wanyi Nie
“Light-activated photocurrent degradation and self-healing in perovskite solar cells”
- 11:30 am Prashant Kamat
“Intriguing excited state properties of mixed halide perovskites”
- 12:15 pm *Lunch (on your own)*

Afternoon

- 2:00 pm Jean-Sebastien Lauret
“Excitonic properties and ultrafast carrier dynamics in hybrid organic-perovskites”
- 2:45 pm Paulina Plochocka
“Excitons in organic inorganic perovskites”
- 3:30 pm *Coffee Break*
- 3:45 pm Erik Grumstrup
“Spatial and energetic dynamics of charge carriers in thin film perovskites through ultrafast microscopy”
- 4:30 pm Amanda Neukirch
“Polaron Stabilization in Hybrid Perovskites”

Thursday, July 14

Morning

8:30 am *Breakfast*

9:00 am – 12:30 pm Informal Discussions, Collaborations, Group hike

12:15 pm *Lunch (on your own)*

Afternoon

2:00 pm Mao-Hua Du
“Fast diffusion of native defects and impurities in perovskite solar cell material
 $\text{CH}_3\text{NH}_3\text{PbI}_3$ ”

2:45 pm Daniel Slotcavage
“Ionic migration in mixed I/Br perovskites”

3:30 pm *Coffee Break*

3:45 pm Dali Sun
“Organometal trihalide perovskite spintronics”

4:30 pm Mikaël Kepenekian
“Spin properties of 3D and layered halide perovskites”

Friday, July 15

Morning

- 8:30 am *Breakfast*
- 9:00 am Filippo De Angelis
“Interplay of electronic and dynamical processes in organohalide perovskites”
- 9:45 am Matthew Smith
“Decreasing the electronic confinement in layered perovskites through intercalation”
- 10:30 am *Coffee Break*
- 10:45 am Chuang Zhang
“Electric field effects in the MAPbI₃ Perovskite”
- 11:30 am Tom Savenije
“Global Kinetic Model for Charge Carrier Dynamics in Methyl Ammonium Lead Iodide (MAPI) Perovskites”
- 12:15 pm *Lunch (on your own)*

Afternoon

- 2:00 pm Liang Tan
“Stability and electronic structure of halide perovskites from first-principles”
- 2:45 pm Jao van de Lagemaat
“Dynamics of excitons and carriers in perovskites-slow carrier cooling and other phenomena”
- 3:30 pm *Coffee Break*
- 3:45 pm Sergei Tretiak
“Electronic processes in organic semiconductors: theory meets experiment”
- 4:30 pm Informal Discussions, Collaborations