

## Nanophotonics Out of Equilibrium

Organizers: Matthew Pelton, Matthew Sheldon, Prineha Narang  
July 16 – 20, 2019

Telluride Intermediate School, 725 W. Colorado Ave., Telluride, CO 81435  
TSRC host: Mark Kozak, 970-708-4426

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### Monday, July 15, 2019

5:00 – 6:30  
PM

Welcome Reception  
*Oak, 250 W. San Juan Ave. (Gus's Way)*

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### Tuesday, July 16, 2019

2:00 – 2:45

Matthew Sheldon

Radiative cooling with all-inorganic halide perovskite nanocrystals *via* anti-Stokes photoluminescence

2:45 – 3:30

Ruben Esteban

Quantum optomechanical description of plasmon-enhanced molecular Raman spectroscopy

3:30 – 4:15

Matthew Pelton

Metal nanoparticles for strong quantum coupling and for fundamental fluid dynamics

4:30 – 7:00

Happy Hour (sponsored)  
*The Roof, New Sheridan Hotel, 231 W. Colorado Ave.*



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## Wednesday, July 17

8:30 – 9:00  
AM

Continental Breakfast

9:00 – 9:45

Elena  
Shevchenko

Three-dimensional supercrystals: Their  
formation and properties

9:45 – 10:30

Mona Tréguer-  
Delapierre

Recent development of the synthesis of hybrid  
nanostructures

10:30 – 11:00

Coffee Break

11:00 – 11:45

Stephen Gray

Lattice plasmon mode mediated energy transfer  
between quantum dot clouds

11:45 – 12:30  
PM

Alajandro  
Manajavacas

Collective effects on periodic arrays of  
plasmonic nanostructures

12:30 – 2:00

Lunch (catered)

2:00 – 6:00

Free Time

6:00 – 8:00

Picnic

*Outside Telluride Intermediate School, under the tent*



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## Thursday, July 18

8:30 – 9:00  
AM

Continental Breakfast

9:00 – 9:45

David Masiello

Optimizing the interaction between localized surface plasmons and photonic cavity modes in a photothermal absorption spectrometer

9:45 – 10:30

Dirk Englund

Dielectric nanocavities in the extreme  $Q/V$  limit

10:30 – 11:00

Coffee Break

11:00 – 11:45

Rohit  
Chikkaraddy

Vibrational and electronic light scattering by single molecules in sub-5nm gap plasmonic cavities

11:45 – 12:30  
PM

Markus Raschke

Tip-enhanced strong coupling: A new platform for nano-cavity QED and cavity opto-mechanics

12:30 – 2:00

Lunch / Student Poster Session (catered)

2:00 – 4:00

Group Hike



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## Friday, July 19

8:30 – 9:00  
AM

Continental Breakfast

9:00 – 9:45

Maxim Sukharev

Exciton-plasmon materials go nonlinear

9:45 – 10:30

Alexey Belyanin

Nonlinear and quantum optics with 2D and topological materials

10:30 – 11:00

Coffee Break

11:00 – 11:45

Hayk  
Haratyunyan

Ultrafast nanophotonics in metal and semiconductor nanosystems

11:45 – 12:30

Hrvoje Petek

How to dress a metal

12:30 – 2:00

Lunch (catered)



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OptoElectronic Components

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## Saturday, July 20

8:30 – 9:00  
AM

Continental Breakfast

9:00 – 9:45

Jacob Khurgin

Very brief, yet very eventful lives of hot carriers in metals

9:45 – 10:30

Garnett Bryant

Quantum plasmons: Driven dynamics, collisions, and interfaces

10:30 – 11:15

Prineha Narang

Correlated light-matter interactions in quantum materials



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