TSRC Workshop
"Self-assembly and organization in non-equilibrium systems"

Speakers and Titles:

1. Moumita Das — Circadian materialscape: Timed material self-assembly orchestrated by bacterial clock proteins
2. Kranthi Mandadapu — Topological concepts underlying glassy dynamics in supercooled liquids
3. Saad Bhamla — Ultrafast reversible self-assembly of living tangled matter
4. Sho Takatori — Active networks regulate the dynamics of multiphase surfaces
5. William Irvine —
6. Suri Vaikuntanathan — "Active" associative memory
7. Julien Tailleur — Motility-induced self-organization of active materials: from idealized models to bacterial colonies
8. Naomi Oppenheimer — Structural states and Hamiltonian conservation laws in biological active flows
9. Aparna Baskaran — Structure in active systems : Illustrations of the utility of a self assembly paradigm
10. Sujit Datta — Sticking together: How bacterial collectives (re)shape themselves
11. Aaron Dinner — Tuning activity and elasticity of cytoskeletal nematics through molecular properties.
12. Marija Vucelja — Anomalous thermal relaxations in Langevin dynamics and in Markov jump processes
13. Kinjal Dasbiswas — Self-organized shape changes in biological active solids
14. Shiladitya Banerjee — Self-organization in suspended states of animation
15. Glen Hocky — Modeling assembly of colloids with charges and with mobile binders
16. Amaresh Sahu — Hydrodynamics, mechanics, and osmosis of lipid membranes
17. Norbert Scherer — Self-Organizing Optical Matter and Nano-Machines
18. Shiqi Chen — Fluctuation Mode-Specific Power Dissipation and Entropy Production in Optical Matter Systems
19. Grant Rotskoff — Dissipative encoding of equilibrium response with nonequilibrium self-assembly.

Please feel free to contact Suri (240-274-3192) or Kranthi (510-384-3574) when in Telluride.

Schedule:

All talks are 50 min (40 min for presentation + 10 mins for Q&A)

Tuesday:

9:00-9:50 – Julien Tailleur (Motility-induced self-organization of active materials: from idealized models to bacterial colonies)
9:50-10:40 – Sho Takatori (Active networks regulate the dynamics of multiphase surfaces)
10:40 – 11:00 – Coffee Break
11:00 - 11:50 – Sujit Datta (Sticking together: How bacterial collectives (re)shape themselves)

11:50 - 2:00 – Lunch Break

2:00 - 2:50 – Norbert Scherer (Self-Organizing Optical Matter and Nano-Machines)
2:50 - 3:10 – Coffee Break
3:10-4:00 – Shiqi Chen (Fluctuation Mode-Specific Power Dissipation and Entropy Production in Optical Matter Systems)

Wednesday:

9:00-9:50 – Marija Vucelja (Anomalous thermal relaxations in Langevin dynamics and in Markov jump processes)
9:50-10:40 – kranthi Mandadapu (Topological concepts underlying glassy dynamics in supercooled liquids)
10:40 – 11:00 – Break
11:00 - 11:50 – Suri Vaikuntanathan (“Active” associative memory)

11:50 - 2:00 – Lunch Break

2:00 - 2:50 – Shiladitya Banerjee (Self-organization in suspended states of animation)
2:50 - 3:10 – Coffee Break
3:10-4:00 – Kinal Dasbiswas (Self-organized shape changes in biological active solids)

Thursday:

Break until 1:15 pm for any outdoor activity.

1:20-2:10 – Amaresh Sahu (Hydrodynamics, mechanics, and osmosis of lipid membranes)

2:10-3:00 – Naomi Oppenheimer (Structural states and Hamiltonian conservation laws in biological active flows)

3:00 - 3:20 – Break

3:20 - 4:10 – Moumita Das (Circadian materialscape: Timed material self-assembly orchestrated by bacterial clock proteins)
4:10 - 5:00 – William Irvine (TBD)

Friday:

9:00-9:50 – Glen Hocky (Modeling assembly of colloids with charges and with mobile binders)
9:50-10:40 – Aparna Baskaran (Structure in active systems : Illustrations of the utility of a self assembly paradigm)
10:40 – 11:00 – Break
11:00 - 11:50 – Grant Rotskoff (Dissipative encoding of equilibrium response with nonequilibrium self-assembly)

11:50 - 2:00 – Lunch Break

2:00 - 2:50 – Aaron Dinner (Tuning activity and elasticity of cytoskeletal nematics through molecular properties)
2:50 - 3:10 – Coffee Break
3:10-4:00 – Saad Bhamla (Ultrafast reversible self-assembly of living tangled matter)

Saturday: Break all day for outdoor activity. Many attendees are leaving on saturday as well.