

PROGRAM



Organizers:

Takahisa Yamamoto
Tim Sage
Ann McDermott
Frans Mulder

Nagoya University, JP
Northwestern University, USA
Columbia University, USA
Aarhus University, DK

TSRC office:

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Location of the meeting and breakfast (different from usual!):

Elementary School

447 W Columbia Ave, Telluride

Sunday 2 Aug

18:00-20:00 Welcome Get Together
The New Sheridan Bar Pool Room. 231 W Colorado Ave

Monday 3 Aug

8:00-8:20 breakfast

8:20-8:30 welcome

8:30-9:15 **McDermott, Ann**

Insights into protein function from sensitized NMR

9:15-10:00 **Jimenez, Ralph**

Directed evolution of fluorescent proteins towards high photostability and high brightness

10:00-10:30 break

10:30-11:15 **Zuiderweg, Erik**

Daring to stick our toes in the water

11:15-12:00 **Wand, Josh**

The dark energy of proteins comes to light and other stories... Part II

Special joint session with TSRC workshop on The Role of Dynamics in Enzyme Catalyzed Reactions

14:30-15:15 **Fraser, James**

Mapping Protein Conformational Landscapes by XFEL and Multitemperature Crystallography

15:15-16:00 **Callender, Bob**

The Role of Dynamics in Enzyme Catalyzed Reactions

16:00-16:30 break

16:30-17:15 **Champion, Paul**

Vibrational and conformational dynamics and their influence on proton tunneling in proteins

17:15-18:00 **Kohen, Amnon**

The Role of Dynamics in Enzyme Catalyzed Reactions

18:00-18:45 **Dyer, Brian**

The Role of Dynamics in Enzyme Catalyzed Reactions

Tuesday 4 Aug

12:00-12:45 **Schlichting, Ilme**

Protein structure and dynamics using X-ray free-electron lasers

12:45-13:30 **Bruschweiler, Rafael**

Kinetic cooperativity, loop dynamics, and allostery of proteins from NMR and MD simulations

- 13:30-14:00** break
- 14:00-14:45 Kitao, Akio**
Proton permeation mechanisms in the stator of bacterial flagellar motor
- 14:45-15:30 Stock, Gerhard**
Structural dynamics of allosteric communications
- 15:30-16:00** break
- 16:00-16:45 Straub, John**
Dynamics and thermodynamics in nano confined systems: proteins and water
- 16:45-17:30 Palmer, Arthur**
Protein dynamics from NMR spectroscopy and molecular dynamics simulations
- 18:00** Town Talk at the Sheridan Opera House, 110 N Oak Street

Wednesday 5 Aug

- 8:00-8:30** breakfast
- 8:30-9:15 van Thor, Jasper**
Ultrafast dynamics in protein crystals
- 9:15-10:00 Hubbell, Wayne**
Mapping the energy, magnitude and time scale of protein fluctuations with site-directed spin labeling
- 10:00-10:30** break
- 10:30-11:15 Weik, Martin**
Hydration water and protein dynamics
- 11:15-12:00 Yamato, Takahisa**
Energy exchange network model of inter-residue interactions in protein
- 14:30-15:15 Fenimore, Paul**
Protein dynamics, solvation, and (incoherent neutron) quasielastic scattering
- 15:15-16:00 Oroguchi, Tomotaka**
Nanoscale wetting and drying processes dominate protein functional motions
- 16:00-16:30** break
- 16:30-17:15 Swenson, Jan**
How large part of a protein is needed for a slaving behavior?
- 17:15-18:00 Mulder, Frans**
Detecting O₂ binding to secluded protein cavities
- 18:00** TSRC picnic under the tent outside of the elementary school.

Thursday 6 Aug

14:30-15:15 Sage, J Timothy

TBA

15:15-16:00 Lindorff-Larsen, Kresten

Conformational exchange in proteins from molecular dynamics and NMR—how well do they match?

16:00-16:30 break

16:30-17:15 Havenith, Martina

The hydrophobic collapse as probed by Kinetic THz absorption spectroscopy

17:15-18:00 Mizutani, Yasuhisa

Protein dynamics of microbial rhodopsins in their photocycles as revealed by time-resolved visible and ultraviolet resonance Raman spectroscopy

18:00-19:20 break

19:20-19:30 business meeting

19:30-20:15 Blackledge, Martin

Investigating protein conformational energy landscapes using NMR spectroscopy

20:15-21:00 Anfinrud, Philip

Watching proteins function with X-rays

21:00-21:10 closing remarks