



Tempe, Arizona, USA

Time Start	Time End	Location	Speaker(s)	Title
Sunday	Nov. 9th			•
9:00 AM	9:15 AM	PSF 186	Oliver Beckstein	Welcome and Opening, General Organization
				Remarks
9:15 AM	9:45 AM	PSF 186	Hugo	MDAnalysis: Present and Future
			MacDermott-Opeskin	
$9:45~\mathrm{AM}$	10:45 AM	PSF 186	Matthias Heyden	Keynote: Sub-Picosecond Timescale Information
				in Microsecond Simulations
10:45 AM	11:30 AM	PSF foyer		Tea / Coffee Break
11:30 AM	11:50 AM	PSF 186	Peter Zhang	Ion-Dependent Structural Ensemble and Phase
				Separation Propensity of Single-Stranded RNA
11:50 AM	12:10 PM	PSF 186	Jennifer A Clark	Hydration Contribution to the Solvation Free
				Energy of Water-Soluble Polymers
12:10 PM	12:30 PM	PSF 186	Amruthesh	Studying the Effect of Solvent Crowding on
			Thirumalaiswamy	Protein Energy Landscapes
12:30 PM	1:45 PM	PSF foyer		Lunch
1:45 PM	2:05 PM	PSF 186	Matthias Heyden	IMD Streaming Introduction
2:05 PM	2:25 PM	PSF 186	Lawson Woods	IMDv3 Streaming: Theory, Implementation,
				Technical Details
2:25 PM	2:45 PM	PSF 186	Amruthesh	IMDv3 in Practice: MD Packages, Performance
			Thirumalaiswamy	
2:45 PM	3:05 PM	PSF 186	Heekun Cho	Streaming Applications Demo (2 Examples)
3:05 PM	3:30 PM	PSF foyer		$Tea\ /\ Coffee\ Break$
3:30 PM	4:30 PM	PSF 186	Amruthesh	Streaming Workshop
			Thirumalaiswamy	
4:30 PM	4:50 PM	PSF 186	Jamie Rowe	Integrating MDAnalysis Streaming Analysis with
				WESTPA
4:50 PM	5:10 PM	PSF 186	Heekun Cho	Streaming Applications Demo
5:10 PM	5:20 PM	PSF foyer		$Tea\ /\ Coffee\ Break$
5:20 PM	5:50 PM	PSF 186		Open Hackathon
5:50 PM	5:55 PM	PSF 186	Irfan Alibay	Closing Remarks
Monday	Nov. 10 th			
9:00 AM	9:10 AM	PSH 350	Jennifer A Clark	Opening Remarks
9:10 AM	10:10 AM	PSH 350	Lillian Chong	Keynote: From Protein Structure to Function:
				Weighted Ensembles Beyond Machine Learning





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Time Start	Time End	Location	Speaker(s)	Title
10:10 AM	10:30 AM	PSH 350	Ricardo Xavier Ramirez	2Danalysis: An Open Source Project to Study Complex Lipid Membranes and Their Interaction with Biopolymers
10:30 AM	$10:50~\mathrm{AM}$	PSH 350	Tyler Reddy	TBD
10:50 AM	11:20 AM	PSH 350	v	Tea / Coffee Break
11:20 AM	11:40 AM	PSH 350	Leah Repa	Membrane-Assisted Transport of Bulky Substrates in a Secondary Active Transporter
11:40 AM	12:00 PM	PSH 350	Prateek Rai	Computer-Aided Discovery and Design of Novel Autotaxin-LPA Signaling Axis Inhibitors to Overcome Cancer Therapeutic Resistance.
12:00 PM	12:20 PM	PSH 350	Alyssa Travitz	Large-Scale Collaborative Assessment of Binding Free Energy Calculations for Drug Discovery using OpenFE
12:20 PM	$1:35~\mathrm{PM}$	PSH 350		Lunch
1:35 PM	2:00 PM	PSH 350		Lightning Talks
			Joshua Raphael Uy	Using tICA to Find Causes of Conformational
				Transitions in Transporters.
			Shubham Kumar Pandey	Unraveling Spectral Shifts in Microbial Rhodopsin through Machine Learning and Molecular Dynamics
		7	Noah Vasconez	Phosphate Aggregation in Aqueous Solution: Comparison of Non-Polarizable and Polarizable Force Fields
			Matt Kochert	Using a Reservoir-Based Molecular Dynamics Approach to Rapidly Converge New Hamiltonians.
2:00 PM	2:20 PM	PSH 350	Sudheesh Kumar Ethirajan	OPES-Driven Active-Learning Potentials Reveal Node-Assisted Imidazole Diffusion in Flexible SALEM-2 MOF
2:20 PM	2:40 PM	PSH 350	Bryan Gworek	Elucidating the Mechanisms Underlying Phospholipid-Mediated Capsid Formation and Binding between Arc and PI(3)P
2:40 PM 3:00 PM 3:30 PM	3:00 PM 3:30 PM 3:55 PM	PSH 350 PSH 350 PSH 350	Brady Johnston	Shining a Ray-Traced Light on Simulations Tea / Coffee Break Lightning Talks
0.00	0100 2 2.2	5 5 5 5	Chris Ausbeck	Directional Coupling and Asymmetry Explain
			Danis Yangaliev	Ligand Specific Allosteric Regulation in LacI Coarse-Grained RNA Model for the Martini 3 Force Field
			Jessica Bodosa	Improving CHARMM36 Force Field for Lipid Interactions with Calcium and Beryllium using
			Ramón González-Pérez	Free Energy Perturbation Exploring the Limits of Ether Oxygen Inclusion in Polymer Membranes for Alkali Ion Separations
3:55 PM	4:15 PM	PSH 350	Augustine Chimezie Onyema	Predicting Interacting Domains in the Nucleosome from Time-Related Kinetic Correlation
4:15 PM	4:35 PM	PSH 350	Chenou Zhang	Conformational Transition of Prestin, the Electro-Mechanical Transducer in Outer Hair Cells of the Inner Ear
4:35 PM	$4:40~\mathrm{PM}$	PSH 350	Oliver Beckstein	Intro to Master Classes
$4:40~\mathrm{PM}$	$5:10~\mathrm{PM}$	PSH 350	Irfan Alibay	Master Class: Intro to MDAKits and Contributing
5:10 PM	5:25 PM	PSH 350		Tea / Coffee Break
5:25 PM	5:40 PM	PSH 350	Oliver Beckstein	Master Classes: Topology Attributes $+$ DSSP





Time Start	Time End	Location	Speaker(s)	Title
5:40 PM	5:55 PM	PSH 350	Hugo	Master Classes: Distopia in MDAnalysis
			MacDermott-Opeskin	
5:55 PM	6:00 PM	PSH 350	Irfan Alibay	Master Classes: Closing Remarks
Tuesday	Nov. 11th			
8:30 AM	8:55 AM	PSF 186	Workshop Presenters	Workshop Installation Clinic
8:55 AM	9:00 AM	PSF 186	Yuxuan Zhuang	Opening Remarks
9:00 AM	11:00 AM	PSF 186	Brady Johnston and Yuxuan Zhuang	Visualization Workshop
11:00 AM	11:20 AM	PSF foyer		Tea / Coffee Break
11:20 AM	11:50 AM	PSF 186		Lightning Talks
			Jherome Brylle Woody	A Stratified Nani Approach for Fast and Scalable
			Santos	K-Means Clustering of Large Molecular Dynamics
				Datasets
			Rekha Joshi	Identification of Specific Interactions between the
				Membrane Protein Prestin and Lipids
			Pooja Shrestha	None
			Jennifer A Clark	ZENO-MDAKit
			Michael A. Sauer	Dynamics-Informed Machine Learning:
				Physics-Guided Feature Importance Identifies Key
				Residues for Enzyme Design
11:50 AM	12:00 PM	PSF 186	Irfan Alibay	Intro to the Open Molecular Software Foundation (OMSF)
12:00 PM	1:05 PM	PSF 186	Jeffry Wagner, Jennifer A Clark	Open Force Field Workshop
1:05 PM	2:20 PM	PSF foyer		Lunch
2:20 PM	3:20 PM	PSF 186	Mike Henry, Alyssa	Open Free Energy Workshop
			Travitz, Irfan Alibay	
3:20 PM	3:35 PM	PSF foyer		Tea / Coffee Break
3:35 PM	4:35 PM	PSF 186	Hugo	OpenADMET Workshop
			MacDermott-Opeskin	
4:35 PM	4:50 PM	PSF 186	Irfan Alibay	Closing Remarks

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