## **NAMD Developer Workshop**

Room 3269 - Beckman Institute, University of Illinois, Urbana Illinois. August 19-20, 2019

## **Day 1**: Monday, August 19, 2019

8:30	Participants Reception - Outside Room 3269, 3rd Floor				
09:00-09:15	Emad Tajkhorshid - Welcome/Introductory Remarks				
	Overview of NAMD Vision and Major Areas of Development				
Morning Session					
09:15-10:00	Talk 1	David Hardy	NAMD Development Progress and Plans, Potential migration to GitHub		
10:00-10:45	Talk 2	Julio Maia	NAMD on GPUs: Ongoing efforts and future		
10.00-10.45	I dik Z	Julio Iviala	challenges		
10:45-11:00	Coffee break - TCB Courtyard I, 3rd Floor				
11:00-11:45	Talk 3	Jim Phillips	Experiences with NAMD and Charm++ on the Summit POWER9/Volta Supercomputer		
11:45-12:15	Talk 4	Ronak Buch	Recent Developments in Charm++		
12:15-01:15	Lunch break - TCB Courtyard I, 3rd Floor				
Afternoon Session					
01:15-01:45	Talk 5	Peng Wang	NAMD CUDA development update		
01:45-02:15	Talk 6	Joao Ribeiro	Accessible molecular modelling environment with VMD and NAMD		
02:15-02:45	Talk 7	Mariano Spivak	Multiple QM levels in hybrid QM/MM simulations		
02:45-03:00	Coffee break - TCB Courtyard I, 3rd Floor				
03:00-03:30	Talk 8	Rafael Bernardi	QM/MM MD: Using NAMD's enhanced sampling tools in hybrid simulations		
03:30-04:00	Talk 9	Marcelo Melo	Dimensionality reduction on-the-fly: concurrent generalized correlations analysis within MD calculations		
04:00-04:30	Talk 10	Juan Perilla	Analysis of petascale molecular dynamics simulations		
NAMD Roadmap					
04:30-06:30	Round Table + Roadmap Elaboration				
6:30	Social dinner				

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Day 2: Tuesday, August 20, 2019

8:30	Participants Reception - Outside Room 3269, 3rd Floor			
9:00	Opening of the second day - Room 3269, 3rd Floor			
Morning Session				
09:00-09:30	Talk 11	Chris Chipot	Roadmap for Free Energy Methods in NAMD	
09:30-10:00	Talk 12	Benoit Roux	Revisiting the fundamental issues of molecular dynamics alchemical free energy calculations	
10:00-10:30	Talk 13	Ron Elber	Milestoning and MDAS	
10:30-10:45	Coffee break - TCB Courtyard I, 3rd Floor			
10:45-11:15	Talk 14	Jeffrey Comer	Hybrids of adaptive biasing force and replica exchange in NAMD	
11:15-11:45	Talk 15	Wei Jang	Input setup tool for relative free energy computations	
11:45-12:15	Talk 16	Kosar Khajeh	Implementation of magnetic field force in molecular dynamics algorithm: NAMD source code	
12:15-01:15	Lunch break - TCB Courtyard I, 3rd Floor			
Afternoon Session				
01:15-01:45	Talk 17	John Vant	MDFF: An Investigation of Systematic Error in GridForces Potential and It's Edification	
01:45-02:15	Talk 18	Chris Rowley	ANI Machine Learned Potential to Represent Ligand Intramolecular Terms	
02:15-02:45	Talk 19	Sepehr Dehghani-Ghahn aviyeh	Coarse-Grained Molecular Dynamics in NAMD	
02:45-03:15	Talk 20	Daipayan Sarkar	String-like simulations outside the friction dominated regime	
03:15-03:30	Coffee break - TCB Courtyard I, 3rd Floor			
NAMD Roadmap				
03:30-05:30	Round Table + Roadmap Elaboration			
5:30	Closing of the workshop			