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Dissipation Mechanisms in Nano/Mesoscale Tribological Systems | (smr 3713)

Wednesday 01 June 2022

notitle - Leonardo Building - Budinich Lecture Hall (09:00-18:30)

time	title	presenter
09:00	Non-Equilibrium Dynamics and Nanofriction in Ion Coulomb Crystals	TANJA ELISABETH MEHLSTÄUBLER
09:30	Markov Dynamics and Entropy Production in a Prandtl–Tomlinson Model	ALBERTO PETRI
09:50	Collective Colloidal Dynamics on Ordered and Disordered Landscapes	PIETRO TIERNO
10:20	Understanding the Rheology of Nanocontacts	ALI KHOSRAVI
10:40	Coffee Break	
11:10	Dissipation and Lubrication of Solid-liquid Nanointerfaces: Complex Balance of Substrate Topography, Molecular Diffusion and Environmental Conditions	CLODOMIRO CAFOLLA
11:30	Energy Storage and Dissipation by Forced Wetting and Drying of Nanoporous Materials	ALBERTO GIACOMELLO
12:00	Microscopic Mechanisms of Frictional Aging	WENGEN OUYANG
12:20	Unravelling Superlubricity and Interfacial Electrical Contact Mechanism at Single-asperity Level	TIANBAO MA
12:50	Lunch	
14:20	Moiré-pattern Evolution Couples Rotational and Translational Friction at Crystalline Interfaces	XIN CAO
14:50	Open Issues in Pharmaceutical Powders Mechanics	ANDREA BENASSI
15:20	Oscillatory Motion of Viscoelastic Polymer Drops on Slippery Lubricated Surfaces	MATTEO PIERNO
15:40	The Nerve Pulse as an Electromechanical Soliton, and How it is Related to Fluctuations and Relaxation Timescales in Biological Membranes	THOMAS HEIMBURG
16:10	Coffee Break	
16:40	Where Did That Charge Come From?	LAURENCE DANIEL MARKS
17:10	Enhancing Liquid/solid Interfacial Energy to Highlight the Elasticity of Mesoscopic Liquids: Long-range Correlations and New Thermodynamic	LAURENCE NOIREZ
17:30	Mesoscale Organization in Models of Biological Tissue	MARIA CRISTINA MARCHETTI
18:00	Poster Session (Virtual)	