



Hong Kong Society of Theoretical and Applied Mechanics Jiangsu Society of Theoretical and Applied Mechanics

The 21st HKSTAM Annual Conference in conjunction with The 13th Jiangsu-HK Forum on Mechanics and Its Application

Conference Program (8 April 2017)

Conference Venue: Lee Shau Kee Building (李兆基樓) at The Hong Kong Polytechnic University (PolyU)

April 8, 2017, Saturday Morning (Y305, Lee Shau Kee Building, PolyU)

08:30 - 12:00	Registration and Reception [3/F Lobby, Lee Shau Kee Building, PolyU]			
09:00 – 09:10 [10 mins]	Opening addresses (MC: Professor Zhongqing SU (蘇衆慶), PolyU, Secretary of HKSTAM)			
	Professor Li CHENG (成利)	Professor Maosen CAO (曹茂森)		
	President of HKSTAM	Vice Secretary of JSTAM		
	Chair: Professor Li CHENG (成利), The Hong Kong Polytechnic University, President of HKSTAM			
	Distinguished Lecture I			
09:10 - 09:50	Professor Alfonso Hing Wan NGAN (顏慶雲)			
[40 mins]	Kingboard Professor in Materials Engineering, Chair Professor of Materials Science and Engineering, Department of Mechanical Engineering			
	The University of Hong Kong			
	"When Mechanics Meets with Chemistry – Novel Redox Actuators Made from Nickel Hydroxide"			



	Chair: Professor Paul H.F. LAM (林向暉), City University of Hong Kong, Vice President of HKSTAM			
	Distinguished Lecture II Professor Maosen CAO (曹茂森) College of Mechanics and Materials			
09:50 - 10:30				
[40 mins]				
	Hohai University			
	"Wavelets-Driven Multiscale Dynamics Concepts for Structural Damage Detection"			
10:30 - 11:00	Photo Taking			
[30 mins]	Coffee Break (3/F Lobby, Lee Shau Kee Building, PolyU)			
	Chair: Professor Zhongqing SU (蘇衆慶), The Hong Kong Polytechnic University, Secretary of HKSTAM			
	Distinguished Lecture III			
11:00 - 11:40	Professor Quan WANG(王泉)			
[40 mins]	Chair Professor, Department of Architecture and Civil Engineering			
	City University of Hong Kong			
	"Energy Harvesting from Ocean Waves by Piezoelectric Technologies"			
	Chair: Professor Maosen CAO (曹茂森), Hohai University, Vice Secretary of JSTAM			
	Distinguished Lecture IV			
11:40 - 12:20	Professor Jinxing LIU(劉金興)			
[40 mins]	Associate Head and Professor, Department of Engineering Mechanics and Science			
	Jiangsu University			
	"Strain Gradient Elasto-Plasticity Meeting Some Newest Challenges"			
12:20 - 14:00	Buffet Lunch at 4/F of the Communal Building, PolyU (香港理工大學南北小廚)			
[1 hour 40 mins]	Speakers of the following sessions please load their presentation files onto the computers in this break.			



14:00 – 15:30 [1 hr 30 mins]	Session A1 [Seminar Room Y302] Chair: Prof. Haimin YAO	Session B1 [Seminar Room Y304] Chair: Prof. Jidong ZHAO	Session C1 [Seminar Room Y305] Chair: Prof. Xinrui NIU	Session D1 [Seminar Room Y306] Chair: Prof. Hui TANG	
14:00 – 14:15 [15 mins]	ZHAN Yuexing (CityU) Effect of nanoparticle/polymer interphase on visco-hyperelastic behavior of nanocomposite hydrogels	WANG Bin (NUAA) Forward and inverse studies on scattering of the Rayleigh wave	XIN Zhiqiang (Hohai U) Suppression of the Wake Vortex of Self-propelled Locomotion of the Three Dimensional Travelling Wave Wall	FAN Jihua (JUST) 基於 B 樣條插值方法的旋轉內接柔 性懸臂梁動力學研究	
14:15 – 14:30 [15 mins]	GAO Libo (CityU) High-entropy alloy (HEA) nanolattice composites and their mechanical properties	SHA Ganggang (Hohai U) CWT based damping estimation for condition diagnosis of RC structures	GUAN Ben (PolyU) Investigation on Shock Induced Stripping Breakup Process of A Liquid Droplet	XU Shang (CityU) Mechanical Behavior and Structural Stability of Au Nanostructures	
14:30 – 14:45 [15 mins]	GAO Xiang (HKUST) Molecular Dynamics Study of Ion Transport in Carbon Nanotubes	HU Zhongyu (PolyU) Vibro-acoustic System Modelling by the Condensed Transfer Function Approach	KONG Yong (HKUST) Understanding the Physics of Dead Zone in Debris Flow - Microstructure and Jamming Transition	CHU Henry (Cornell U) Accelerated Stokesian Dynamics Simulations of Active Microrheology: Microviscosity, Microdiffusivity and Suspension Stress	
14:45 – 15:00 [15 mins]	YAO Zijian (CityU) Role of particle primary aggregation on the mechanical properties of particle reinforced polymer composites	ALABI Stephen Adeyemi (CityU) Selection of Appropriate Rail-Sleeper-Ballast Modeling Method for Matching Field Test Time-Domain Data	SHEN Lu (PolyU) Application of Dielectric Barrier Discharge Plasma Actuator on Flow Control over a Delta Wing	LUO Huahuang (HKUST) Two-degree-of-freedom Nonlinear Mass-Damper-Spring Model to Predict the Capturing of Circulating Tumor Cells in Microfluidic-Elasto-Filtration Chips	
15:00 – 15:15 [15 mins]	MA Hei Lam (PolyU) Mechanical properties of coiled carbon nanotube/epoxy adhesive at cryogenic environment	CHENG Zhiliang (UMac) Deflection measurement of thin-walled hollow tube with embedded FBG sensors	LIU Chun-Ho (HKU) On Plume Dispersion after Line Source in Crossflows over Rough Surfaces	ZHANG Hongti (CityU) Deformation mechanism transition in single crystalline gold nanowires with diameters below 100nm	
15:15 – 15:30 [15 mins]	CAO Ke (CityU) in-situ investigation of the mechanical properties of CNT yarns	SHAN Shengbo (PolyU) Detection of Breathing Cracks with the Second Harmonic Shear-Horizontal (SH) Waves	AHMAD Shakeel (PolyU) LBM Simulation of Successive Impingement of Two Droplets on an Inclined Surface	ZHOU Tong (PolyU) Dynamic and Static Analysis of a Double-Layered Compound 'Acoustic Black Hole' Beamlike Structure	
15:30 – 15:45 [15 mins]	Coffee Break (3/F Lobby, Lee Shau Kee Building, PolyU) Speakers of the following sessions please load their presentation files onto the computers in this break.				

April 8, 2017, Saturday Afternoon (Lee Shau Kee Building, PolyU)



15:45 – 17:15 [1 hr 30 mins]	Session A2 [Seminar Room Y302] Chair: Prof. Wanhuan ZHOU	Session B2 [Seminar Room Y304] Chair: Prof. Yi-Kuen LEE	Session C2 [Seminar Room Y305] Chair: Prof. Wenjing YE	Session D2 [Seminar Room Y306] Chair: Prof. Yang LU	
15:45 – 16:00 [15 mins]	NIU Xinrui (CityU) Elastic Modulus of Rat Liver from 8 to 22 °C	SUN Guangjun (Nanjing Tech U) Multi-scale Modeling in Concrete Structure Seismic Damage and Collapse	HE Bin (Nanjing Tech U) 流體熱控針灸針的熱-流耦合特性分 析	LIANGWeijian (HKUST) Hierarchical MPM-DEM couple model for granular material	
16:00 – 16:15 [15 mins]	JIANG Chenchen (CityU) Robotic Aid Micro-Mechanical System for Microwire Torsional Testing	SENETAKIS Kostas (CityU) Experimental contact mechanics of weathered tuff granules	ZHANG Fu (PolyU) Light/Heavy RM instability driven by cylindrical imploding shocks	WANG Xiaoyi (HKUST) Theoretical Modeling of Micro Thermal Accelerometer	
16:15 – 16:30 [15 mins]	LAM King Cheong (PolyU) Room temperature methane gas sensor based on in-situ reduced graphene oxide incorporated with tin dioxide	MA Li (PolyU) Vibration of a plate with central power law profile by wavelet decomposition Rayleigh Ritz Method	PENG Huayi (CityU) Wake Measurement of an H-Rotor Vertical Axis Wind Turbine via Wind Tunnel Testing	Wang Jianbiao (PolyU) Investigating the deformation mechanism of high entropy alloy AlCuFeCrNi _{1.4} based on experimentally validated atomistic model	
16:30 – 16:45 [15 mins]	SONG Jian (CityU) Flexural bending behavior of body-centred-cubic (BCC) meso-lattice structures	HU Jun (CityU) Investigation on the Modal Properties of a Footbridge under Strong Wind	QADRI Muhammad Nafees Mumtaz (PolyU) Energy Extraction through a Passively Oscillating Hydrofoil	CHEN Yong-zhan (UMac) Enhancement of the Strength Properties of Pb Contaminated Soil Using Nanoscale Zero Valent Iron (nZVI)	
16:45 – 17:00 [15 mins]	WANG Yongli (CityU) Diameter Effect on Mechanical Behaviours of Human Hair	DU Chunyang (HKUST) Ground-motion amplification considering coupled soil-topography effects: region-scale 3D simulation for Hong Kong island	ZHAO Fuwang (PolyU) Experiments analysis of two-dimensional motion of a freely falling circular cylinder with non-uniform mass distribution	ANSARI Talha Qasim (PolyU) A Diffused Interface Model for Localized Corrosion	
17:00 – 17:15 [15 mins]		CHEN Weibin (UMac) 3D DEM modelling on the interface directional shearing behavior between soil and structure	SHANG Yuhe (HKUST) Condensation Heat Transfer Modelling and Optimization of Biphilic Surfaces		
17:30 – 17:45 [15 mins]	Closing Ceremony and Award Presentation [Y305, Lee Shau Kee Building, PolyU] Attendees: All conference participants				
17:45 – 18:30 [45 mins]	HKSTAM Annual General Meeting [Y305, Lee Shau Kee Building, PolyU] Attendees: Representatives of all Institution Members and all Full HKSTAM Members				
18:30 - 20:30	Conference Banquet at Lunch at 4/F of the Communal Building, PolyU (香港理工大學南北小廚)				



CAMPUS MAP AND ROUTE TO CONFERENCE VENUE



Hotels and Accommodation:

We recommend the following hotels to conference delegates. These hotels are located close to PolyU campus, with a 40-minute taxi ride from Hong Kong International Airport, and a 10-minute walk to conference venue. Please contact the hotels to make your own reservation.

- Harbour Plaza Metropolis (都會海逸酒店), 7 Metropolis Drive, Hunghom, Kowloon, Hong Kong
- Regal Kowloon Hotel (香港百樂酒店), 71 Mody Rd, Tsim Sha Tsui, Hong Kong
- Park Hotel Hong Kong (富豪九龍酒店), 61-65 Chatham Rd S, Tsim Sha Tsui, Hong Kong