



Hong Kong Society of Theoretical and Applied Mechanics



Shanghai Society of Theoretical and Applied Mechanics



香港科技大學
THE HONG KONG
UNIVERSITY OF SCIENCE
AND TECHNOLOGY

The 20th HKSTAM Annual Conference in conjunction with The 12th Shanghai-HK Forum on Mechanics and Its Application

Conference Program (9 April 2016)

Conference Venue: Institute for Advanced Study (IAS) at Hong Kong University of Science and Technology (HKUST)

April 9, 2016, Saturday Morning (IAS Lecture Theatre, HKUST)

<p>08:30 – 09:00 [30 mins]</p>	<p>Registration and reception [IAS Lobby, HKUST]</p>		
<p>09:00 – 09:20 [20 mins]</p>	<p>Opening addresses, souvenirs presentations (MC: Professor Gang WANG (王剛), HKUST, Secretary of HKSTAM)</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%; border: none;"> <p>Professor YK LEE (李貽昆) President of HKSTAM</p> </td> <td style="text-align: center; width: 50%; border: none;"> <p>Professor Shan-Tung TU (涂善東) Vice President of SSTAM</p> </td> </tr> </table>	<p>Professor YK LEE (李貽昆) President of HKSTAM</p>	<p>Professor Shan-Tung TU (涂善東) Vice President of SSTAM</p>
<p>Professor YK LEE (李貽昆) President of HKSTAM</p>	<p>Professor Shan-Tung TU (涂善東) Vice President of SSTAM</p>		
<p>09:20 – 10:00 [40 mins]</p>	<p>Chair: Professor Y.K LEE (李貽昆), HKUST, President of HKSTAM</p> <p>Distinguished Lecture I</p> <p>Professor Shan-Tung TU (涂善東)</p> <p>Changjiang Chair Professor, School of Mechanical and Power Engineering East China University of Science and Technology</p> <p>“Some Aspects on High Temperature Fracture”</p>		

<p>10:00 – 10:40 [40 mins]</p>	<p>Chair: Changjiang Chair Professor Yuehong QIAN (錢躍竑), Shanghai University</p> <p>Distinguished Lecture II</p> <p>Professor Xin ZHANG (張欣)</p> <p>Swire Professor, Department of Mechanical and Aerospace Engineering Hong Kong University of Science and Technology</p> <p>“Broadband Noise Simulations for Aero-Engines”</p>
<p>10:40 – 11:10 [30 mins]</p>	<p>Photo Taking</p> <p>Coffee Break (IAS Lobby, HKUST)</p>
<p>11:10 – 11:50 [40 mins]</p>	<p>Chair: Professor Li CHENG (成利), Hong Kong Polytechnic University, Vice President of HKSTAM</p> <p>Distinguished Lecture III</p> <p>Professor Dongqiang LU (盧東強)</p> <p>Professor, Shanghai Institute of Applied Mathematics and Mechanics, Shanghai University</p> <p>“Hydroelastic Wave Responses of a Thin Plate Floating on a Two-layer Fluid”</p>
<p>11:50 – 12:30 [40 mins]</p>	<p>Chair: Professor Gang WANG (王剛), HKUST, Secretary of HKSTAM</p> <p>Distinguished Lecture IV</p> <p>Professor Zikang TANG (湯子康)</p> <p>Chair Professor, Institute of Applied Physics and Materials Engineering, Faculty of Science and Technology University of Macau</p> <p>“Wrinkled Graphene for Ultra-sensitive Pressure Sensor Application”</p>
<p>12:30 – 14:00 [1 hour 30 min]</p>	<p>Lunch at Bistro, HKUST</p> <p>Speakers of the following sessions please load their presentation files onto the computers in this break.</p>

April 9, 2016, Saturday Afternoon (IAS Building, HKUST)

14:00 – 15:30 [1 hr 30 mins]	Session A1 [Lecture Theatre, G/F] Chair: Yongzhong HUO	Session B1 [IAS, Seminar Room 1, 1/F] Chair: Prof. Hannah WH ZHOU	Session C1 [IAS, Seminar Room 2, 2/F] Chair: Prof. CK CHAN	Session D1 [IAS, Seminar Room 3, 4/F] Chair: Prof Hui TANG
14:00 – 14:15 [15 mins]	LI Yinfeng Surface hydrogenation manipulated mechanical properties of two dimensional carbon nanomaterials	HUANG Jun An Introduction to ÅDEM, An open software for discrete materials	WANG Zhengdao Bifurcation of Flapping Flexible Filament in a uniform flow using IB-LBM	GONG Ze Measuring the Viscoelastic and Adhesion Properties of Neurite by Forced Peeling
14:15 – 14:30 [15 mins]	LI Peifeng In situ TEM Investigation on 4H Au Nanowires under Mechanical and Thermal loadings	HUANG Duruo A New Ground-motion Simulation and Modification Method Considering Spectral Acceleration, Cumulative Arias Intensity and Ground-motion Duration	HUANG Hao Multiscale simulation of the mechanical behaviour of the irradiation swelling in nuclear fuel element	XIAO Lanlan Effects of flowing red blood cells on adhesion of a rolling circulating tumor cell in microvessels
14:30 – 14:45 [15 mins]	XU Shang Self-healing of damaged ultrathin Au nanowires assisted by mechanical manipulation	ALABI Stephen Adeyemi Nonlinear modelling of dynamic behaviour of railway track system	MO Ziwei Wind tunnel experiments for flow and pollutant dispersion in turbulent boundary layer over urban areas	ZHAO Cong Personalized Micro-Elasto-Filtration (pMEF) Chips for Detecting Circulating Tumor Cells in Cancer Patients
14:45 – 15:00 [15 mins]	YAO Zijian Ultrasound Driven Nanoparticle Coalescence - A Molecular Dynamics study	DU Chunyang Influence of 2D Mountain Ridge and Surface Soil Conditions on Design Response Spectrum	WU Zhangquan Study of Chemically Reactive Pollutant Transport over Urban Roughness in the Atmospheric Boundary Layer	TIAN Shuang Numerical study of the correlation between skin blood flow oscillation and radial pulse at wrist
15:00 – 15:15 [15 mins]	ZHOU Yueting The interaction of two stamps over the surface of multiferroic materials	YAO Ye Finite Element Simulation for Residual Stresses in Cold-Formed Steel Tubes	PENG Huayi Study of Dynamic Stall Behaviours of a Straight-Bladed Vertical Axis Wind Turbine by Large Eddy Simulations	FANG Chao Modelling Cellular Blebbing with Boundary Integral Method
15:15 – 15:30 [15 mins]	SUI Wenshu Analysis of Capacitive MEMS Microphones on Sensitivity, Noise and SNR	PAN Wei Road Blockage Impact on Local Air Pollutants at Causeway Bay		ADEMILOYE A.S. Numerical studies on the elastomechanical characteristics of human erythrocyte membrane
15:30 – 15:45 [15 mins]	<p>Coffee Break (IAS Lobby, HKUST)</p> <p>Speakers of the following sessions please load their presentation files onto the computers in this break.</p>			

15:45 – 17:15 [1 hr 30 min]	Session A2 [IAS Lecture Theatre, G/F] Chair: Prof Xinrui NIU	Session B2 [IAS Seminar Room 1, 1/F] Chair: Prof. Yuan LIN	Session C2 [IAS Seminar Room 2, 2/F] Chair: Prof Chih-Yung WEN	Session D2 [IAS Seminar Room 3, 4/F] Chair: Prof. Paul H.F. LAM
15:45 – 16:00 [15 mins]	GAO Libo Design and Fabrication of composite micro-cage via Two-Photon Lithography	JING Xueying Modelling soil-structural interface shear test using discrete element method	MO Jingwen Molecular dynamics simulation of passive fluidic diode for simple fluids	CHI Tianxi Spectral Analysis for Vasomotion under the Skin Blood Flow Oscillation and radial pulse at wrist
16:00 – 16:15 [15 mins]	XU Wei Numerical Simulation of Packaging Effect on the CMOS MEMS Calorimetric Flow Sensor	ZHU Huaxiang On the interaction between force-chains and confining meso-structures in two-dimensional granular material of biaxial loading path	LI Chu A Simple Relation for Nanodroplet Diffusion on Supported Graphene	HU Jun Ambient Test and Numerical Modeling of a Metal Roofing System
16:15 – 16:30 [15 mins]	LI Mingpeng Non-isothermal Martensitic Transitions and Spatiotemporal Patterns—Effects of Driving Rate	WEI Jiangtao DEM analysis of initial fabric effects on undrained cyclic behaviors of sands	RIAZ Kashif Electric Field Enhancement of 3D Nano-spikes Devices for Energy Efficient Biological Manipulations	NG Puilam Behaviour of Normal and Lightweight Reinforced Concrete Tensile Members Subjected to Sustained Loading
16:30 – 16:45 [15 mins]	NARAYANA Harishkumar Stress Memory Polymers: A Novel Approach towards Constituent Analysis and Implication in Smart Compression Stockings	ZHU Fan A peridynamic approach for numerical modelling of sand grain crushing	ZHAO Linshuang A Simplified Solution for the Column-Supported Embankment System	ZHANG Hongti Mechanical properties of CoCrCuFeNi high-entropy alloy micro/nanopillars
16:45 – 17:00 [15 mins]	LIAO Weibing Mechanical properties of Co-based metallic glassy fibers	LUO Xiaodong On the critical state of granular material: the role of grain shape	LIU Xiaodi Liquefaction and Extensive Viscous Flow in Metallic Glass at Room Temperature	JIANG Chenchen Digital Micromirror Device (DMD)-Based in situ Nano-Fatigue Characterizations of 1-D Nanostructures
17:00 – 18:00 [60 mins]	HKSTAM Annual General Meeting [IAS Lecture Theatre, HKUST] Attendees: Representatives of all Institution Members and all Full HKSTAM Members			
18:30 – 20:30	Conference banquet at G-Restaurant, HKUST (香港科技大学南北小厨)			