

Program for EMN Hawaii Meeting & Collaborative Conference on Math-Finance & Statistics 2019

14:00-17:00

**Tuesday March 26
Onsite registration & Sign up**

Wednesday March 27

Ilima Room

Session: Micro and Nano Engineering Chair: Jun Zhang

08:00-08:25

A01: Reducing Small Channel Effect of UTBB-FDSOI Transistor for Current Mirror Application

Gilles Jacquemod
Nice Sophia Antipolis University,
EPOC-UNS, France

08:25-08:50

A02: Engineering novel structures of nanocarriers for accurate targeting to tumors and specific organs

Hiroshi Matsui
City University of New York/Weill
Cornell Medical College, USA

08:50-09:15

A03: Micro and Nano Assembly of Composite particles

Wai Kian Tan
Toyohashi University of Technology,
Japan

09:15-09:40

A04: Application of Crystal Science to Oxide-Type All-Solid-State Lithium Ion Rechargeable Battery : Facet and Interfacial Designs by Crystal Growth Coupled with Theoretical Prediction

Katsuya Teshima
Shinshu University, Japan

09:40-10:00

Session Break

Ilima Room

Session: Polymer Nanostructures Chair: Hua Wu

10:00-10:25

A05: 3-D Polymer-Nanoparticles Synergies for Biomedical Applications as Theranostic Agents

Rosaria Rinaldi
Università del Salento, Italy

10:25-10:50

A06: Selective Hydrogen Production from Formate with Polyvinylpyrrolidone-dispersed Platinum Nanoparticle

Yutaka Amao
Osaka City University, Japan

10:50-11:15

A07: Design of polymer membranes for low-pressure/gravity-driven cleaning of oily wastewater

Antoine Venault
Chung Yuan Christian University,
Taiwan

11:15-11:40

A08: Highly Robust and Stable Graphene-Encapsulated Cu-Grid Hybrid Transparent Electrode Demonstrating Superior Performance in Organic Solar Cells

Hyesung Park
Ulsan National Institute of Science and
Technology (UNIST), Korea

11:40-12:05	A09: Dendrimer Nanotechnology for Drug Delivery	Abhay Singh Chauhan Medical College of Wisconsin, USA
12:10	Lunch Break	

Wednesday March 27

Ilima Room		
Session: Two-dimensional Materials		Chair: Gilles Jacquemod
13:35-14:00	A10: The shape, energy, and stability of graphene Möbius bands	Eliot Fried Okinawa Institute of Science and Technology Graduate University, Japan
14:00 -14:25	A11: Exciton-Phonon interaction in 2D materials	Jun Zhang Institute of Semiconductors, CAS, China
14:25 -14:50	A12: Thermal energy conversion and heat transport at the nanoscale	Jeffrey Urban Lawrence Berkeley National Laboratory, USA
14:50-15:05	A13: Surface ordering induced by large nanosheets onto colloidal objects	Regis Guegan Waseda University, Japan
15:05-15:20	A14: Extraordinary Sensitivity of Surface-Enhanced Raman Spectroscopy of Molecules on MoS ₂ (WS ₂) Nanodomes/Graphene van der Waals Heterostructure Substrates	Samar A. Ghopry University of Kansas, USA
15:20-15:40	Session Break	
Ilima Room		
Session: Financial Mathematics		Chair: Westfall Peter
15:40-16:05	A15: Some ways to deal with skewness in financial instruments pricing & risk management tools	Alain Ruttiens ESCP (Paris) & NEURON sàrl, Luxembourg
16:05-16:30	A16: Option pricing via path-wise comparison of stochastic processes and market completions	Alexander Melnikov University of Alberta, Canada
16:30-16:55	A17: Hedging with Friction	Mete Soner ETH Zürich, Switzerland
16:55-17:20	A18: Measuring Credit Risk of Individual Corporate Bonds in US Energy Sector	Takeaki Kariya Josai International University, Japan

17:20-17:45	A19: Stochastic Stackelberg differential reinsurance game: A new paradigm of optimal reinsurance	Yang Shen York University, Canada
17:50	Dinner Social	

Thursday March 28		
Ilima Room		
Session: Polymer Composites		Chair: Rosaria Rinaldi
07:50-08:15	A20: PVdF-HFP and Ionic Liquid-Based Separator for Lithium-Ion Batteries	Hua Wu Institute for Chemical and Bioengineering, Switzerland
08:15-08:40	A21: Preparation of Composite Membrane for Fuel Cells by Using Fluorinated Oligomer/Clay Nanocomposite as a Key Intermediate	Hideo Sawada Hirosaki University, Japan
08:40-09:05	A22: Numerical calculation of overlap distribution of (2+1)-dimensional directed polymer in random media	Masahiko Ueda Kyoto University, Japan
09:05-09:30	A23: Antibacterial biodegradable polylactic acid / magnesium composites	Di Tie Northeastern University, China
09:30-09:55	A24: Preparation of Polysaccharide-based Composite Materials through Gelation with Ionic Liquids	Jun-ichi Kadokawa Kagoshima University, Japan
09:55-10:10	Session Break	
Ilima Room		
Session: Probability Theory and Statistics		Chair: Alain Ruttiens
10:10-10:35	A25: Theorems connecting Kurtosis to Tailweight, and Counterexamples to Peakedness	Westfall Peter University of California at Davis, USA
10:35-11:00	A26: SOME RELATION BETWEEN BOUNDED BELOW GENERATORS AND STOCHASTIC ANALYSIS	Rémi Léandre University of Franche-Comté, France
11:00-11:25	A27: Construction of k-variate survival functions; universal form	Jerzy Filus Oakton Community College, USA

11:25-11:50	A28: Graph-Based Change-Point Tests for High-Dimensional Data	Yuehua Wu (Amy) York University, Canada
11:50-12:15	A29: A Fokker-Planck approach to control crowd motion	Souvik Roy University of Texas at Arlington, USA
12:15	Lunch Break	
Thursday March 28		
Ilima Room		
Session: General I Chair: Shibin WANG		
13:30-13:55	A30: Hot Carrier Dynamics in Multi-valleyed Semiconductors	Susumu Fukatsu University of Tokyo, Japan
13:55-14:20	A31: Implement a Smart Wearable Ring for Slowing Down Aging Process	Ching-Sung Wang Oriental Institute of Technology, Taiwan
14:20 -14:45	A32: Advances in the Synthesis of Single Wall Carbon Nanotubes by the Water-Assisted CVD Method	Don Futaba National Institute of Advanced Science and Technology (AIST), Japan
14:45-15:10	A33: Guiding self-propelled Janus spheres by varying boundary conditions	Kun Zhao Tianjin University, China
15:10-15:35	A34: Enhancing the interface within CNT-nanocomposites from molecular level	Denvid Lau City University of Hong Kong, Hong Kong
15:35-16:05	Poster Session	
Thursday March 28		
Ilima Room		
Session: Soft and Mechanical Materials/Sensors and Nanostructures Chair: Susumu Fukatsu		
16:05-16:30	A35: Recent Progress in Mechanical Characterization of Human Skin	Shibin WANG Tianjin University, China
16:30-16:55	A36: RF Biosensor Application by Integrated Passive Device Technology	Nam-Young Steve Kim Kwangwoon University, Korea
16:55-17:20	A37: Biocompatible large-scale nanoplasmonic structures for biosensing and long-term monitoring of cell proliferations	Amy Q. Shen Okinawa Institute of Science and Technology Graduate University, Japan
17:20-17:45	A38: Dynamics of Telechelic Polymers in Polymer-Colloid Mixtures for Latex Coating Design	Hossein Rezvantalab Exponent, Inc., USA

17:50	Dinner Social	
Thursday March 28		
Kahili Room		
Energy Materials Chair: Toshihiro Miyata		
08:00-08:25	B1: Recent progress on nano-materials in smart windows	Ping JIN Shanghai Institute of Ceramics, CAS, China/AIST, Japan
08:25-08:50	B2: Cavitas biosensors with biocompatible polymers for tear and saliva chemicals	Kohji Mitsubayashi Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University, Japan
08:50-09:15	B3: Design and validation of an Energy Management System for reusing lithium-ion battery	Wu-Yang SEAN Chung Yuan Christian University, Taiwan
09:15-10:00	Session Break	
Kahili Room		
General II Chair: Ping JIN		
10:00-10:25	B4: Photovoltaic properties of Cu ₂ O-based heterojunction solar cells using binary oxide semiconductor thin films as a n-type layer prepared by low damage magnetron sputtering method	Toshihiro Miyata Optoelectronic Device System R&D Center, Kanazawa Institute of Technology, Japan
10:25-10:50	B5: To be updated	Xun Cao Shanghai Institute of Ceramics, Chinese Academy of Sciences, China
10:50-11:15	B6: Propagation properties of circular and rectangular Hermite non-uniformly correlated beams	Jiayi Yu School of Physical Science and Technology, Soochow University, China
11:15-11:40	B7: Vortex phase-induced changes of the coupling efficiency of a partially coherent radially polarized beam into a single-mode fiber	Xinlei Zhu School of Physical Science and Technology, Soochow University, China
11:40	Lunch Break	
Friday March 29		
Ilima Room		
Microfluidics and Nanofluidics Chair: Ferial TERKI		
08:00-08:25	A39: Jump to contact instability: near field dynamics of liquids at nanoscale	Philippe Tordjeman Institut de Mécanique des Fluides de Toulouse (IMFT), France
08:25-08:50	A40: Solvent dynamics of nanofluids investigated by X-ray scattering	Koji YOSHIDA Department of Chemistry, Faculty of Science, Fukuoka Univ., Japan

08:50-09:15	A:41: Microfluidic synthesis of spherical calcium-alginate hydrogels for antifouling herbicide application	Takasi Nisisako Tokyo Institute of Technology (Tokyo Tech), Japan
09:15-09:40	A42: Nanocrystallization of metallic glasses and subsequent structure changes in the resulted nanomaterials	Dmitri Louzguine Tohoku University, Japan
09:40-10:00	Session Break	
Ilima Room		
Polymers for Electronic Applications Chair: Hideo Sawada		
10:00-10:25	A43: Superlarge-Scale Coarse-Grained Molecular Dynamics Simulations on the Deformation and Fracture Processes of Semicrystalline Polymers	Momoji Kubo Tohoku University, Japan
10:25-10:50	A44: Hydrogels for the removal of Cu(II) alteration products from bronze	Marta Rossi University of Florence (CSGI), Italy
10:50-11:15	A45: Spin-Switching Coordination Polymers based on Hofmann-like Frameworks	Takafumi Kitazawa Toho University, Japan
11:15-11:40	A46: Friction control in high-strength hydrogels	Kazunari Yoshida Yamagata University, Japan
11:40	Lunch	
Ilima Room		
Nanomaterials and Biomedical Nanotechnology Chair: Wen-Hsien Li		
13:30-13:55	A47: A Magnetic Probing Paradigm for Spin Reversal Dynamics at Nanoscale: Bio and Gas sensing applications	Ferial TERKI Université de Montpellier, FRANCE
13:55-14:20	A48: High-quality perovskite CsPbBr ₃ quantum dots thin films and applications of light-emitting diode	Lung-Chien CHEN National Taipei University of Technology, Taiwan
14:20 -14:45	A49: Preparation of chitin nanofiber from crab shell and its commercial applications	Shinsuke IFUKU Tottori University, Japan
14:45-15:10	A50: Graphene based materials for biomedical applications	Mariana Ionita University Politehnica of Bucharest, Romania
15:10-15:30	Session Break	
Ilima Room		
General III Chair: Philippe Tordjeman		
15:30-15:55	A51: Nanometric geochemical analysis of the fault gouges of 1999 Chi-Chi earthquake: what had happened underground that night	Wen-Hsien Li National Central University, Taiwan

15:55-16:20	A52: Computational approach to light-nanomatter interaction	Tokuei SAKO Nihon University, Japan
16:20-16:35	A53: Design and Synthesis of Nano Sensitizer for Highly Effective Dynamic and Thermal Therapy	Xianwei Meng Technical Institute of Physics and Chemistry, CAS, China
16:35-16:50	A54: Biodegradable Metal-organic Framework Nanocarriers for Tumor Thermo-chemotherapy	Longfei Tan Technical Institute of Physics and Chemistry, CAS, China
16:50-17:15	A55: Nanoengineered 3D nm-Thin Biomimetic Membrane for Ultrafast Selective Mass	Siwei Liang Lawrence Livermore National Laboratory, USA
17:20	Dinner Social	

Poster Session		
Thursday March 28 16:05-16:35		
P01	Controlled microstructure and mechanical properties of Al ₂ O ₃ -based nanocarbon composites fabricated by electrostatic adsorption method	Wai Kian Tan Toyohashi University of Technology, Japan
P02	Atomistic simulations of phase transformations in freestanding shape-memory nanoparticles	Won-Seok Ko University of Ulsan, Korea
P03	Nano-structured surface for superhydrophobic applications to overcome water vulnerability	Seunghyup Lee Korea Institute of Ceramic Engineering and Technology, Korea
P04	Study on Protein-Gold Nanoparticles by Absorbance and Fluorescence Method	Xing-Zheng Wu Fukuoka Institute of Technology, Japan
P05	Molecular Dynamics Simulations of Separation Membrane Prototypes For Small Gas Molecules	Mariana Ionita University Politehnica of Bucharest, Romania
P06	Flexible All-Polymer Solar Cells with High-Viscosity Processing Polymer	Changduk Yang Ulsan National Institute of Science and Technology (UNIST), Korea
P07	Fabrication of nylon 6,6 grafted-(carbon nanotubes grafted on carbon fibers) for the multi-scale reinforcement of nylon 6,6 composites	Eun Yeop Choi Chung-Ang University, Korea

P08	Noncovalent functionalization of multi-walled carbon nanotubes with Grignard reagent-containing pyrene derivatives for high performance of polyketone/multi-walled carbon nanotube composites	Jeong Ung Nam Chung-Ang University, Korea
P09	A disposable, on-demand, paper-based microbial fuel cell	KOZO Taguchi Ritsumeikan University, Japan
P10	Thermo-mechanical Characteristics of Nanoscale Platinum-Gold Binary Alloy Powder during 3D Printing Laser Sintering Process – A Molecular Dynamics Study	Jian-Ming Lu National Center for High-Performance Computing, National Applied Research Laboratories, Taiwan
<p>Saturday, March 30</p> <p>One-Day Excursion: Nature, Culture, and Collaboration</p>		