

**Program for EMN Hawaii Meeting & Collaborative Conference
on Quantum Communication 2018**

Sunday April 1 (14:00-17:00) On-site Registration

Monday April 2

| Session: Nanoparticles I Chair: Lali K. Medina-Kauwe | | |
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| 08:25-08:50 | A01: Demonstrating a Magnetic Nanoparticle Separation Process for Rare Earth Element Extraction from Geothermal Fluids | B. Peter McGrail Pacific Northwest National Laboratory, USA |
| 08:50-09:15 | A02: Continuous production of nanoparticles by supercritical hydrothermal synthesis. -Energy Materials, Catalysis, Hybrid Materials- | Tadafumi Adschiri Tohoku University, Japan |
| 09:15-09:40 | A03: Airborne Nanoparticles: Their roles in atmospheric chemistry, microphysics and health | Parisa A. Ariya McGill University, Canada |
| 09:40-10:05 | A04: Strong Light-Matter Interaction at Quantum Optics Limit via Single Metal Nanoparticles with Ultra-small Mode Volumes | Xuehua Wang Sun Yat-sen University, China |
| 10:05-10:20 | Session Break | |
| Session: Nanoparticles II Chair: B. Peter McGrail | | |
| 10:20 -10:45 | A05: Adjuvant Photothermal Therapy Decreases Risk of Local Recurrences After Breast-Conserving Surgery | Shouju Wang Jinling Hospital, Medical School of Nanjing University, China |
| 10:45-11:10 | A06: Nanobiologics targeting drug-resistant cancer | Lali K. Medina-Kauwe Cedars-Sinai Medical Center and UCLA Geffen School of Medicine, USA |
| 11:10-11:35 | A07: Bifunctional Silver Nanoparticles for Wound Healing | Joon Myong Song Seoul National University, Korea |

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| 11:35-12:00 | A08: TBD | Pilar Blancafort The University of Western Australia, Australia |
| 12:00 | Lunch Break | |

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| Session: Quantum Communication I | Chair: Jun Yan |
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| 13:30-13:55 | B01: Single photon emission dynamics of GaN quantum dots | Mark Holmes The University of Tokyo, Japan |
| 13:55-14:20 | B02: Quantum Correlations and Quantum Coherence | Shaoming Fei Capital Normal University, China |
| 14:20-14:45 | B03: Quantum-circuit Refrigeration and Its Application in Superconducting Circuits | Kuan Yen Tan Aalto University, Finland |
| 14:45-15:10 | B04: Quantum secure direct dialogue using Einstein-Podolsky-Rosen pairs | Chao Zheng North China University of Technology, China |
| 15:10-15:35 | B05: Quantum state transfer between valley and photon qubits | Yu-Shu Wu National Tsing-Hua University, Taiwan |
| 15:35-15:50 | Session Break | |

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| Session: Quantum Communication II | Chair: Kuan Yen Tan |
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| 15:50-16:15 | B06: Noise spectroscopy and randomized benchmarking of a silicon quantum dot qubit | Kok Wai Chan University of New South Wales, Australia |
| 16:15-16:40 | B07: Quantum mutual entropy and its decomposition | Takashi Matsuoka Tokyo University of Science, Japan |
| 16:40-17:05 | B08: Quantum bit commitment and its applications | Jun Yan Jinan University, China |
| 17:05-17:30 | B09: Potential requirements of reconstructions in security proof of Quantum Key Distribution | Takehisa Iwakoshi Tamagawa University, Japan |
| 17:30-17:55 | B10: Superconducting nanowire single photon detectors for quantum information | Lixing You Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences (SIMIT, CAS), China |
| 18:00 | Dinner Social | |

Tuesday April 3

Session: Quantum Communication III Chair: Fengli Yan

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| 08:30-08:55 | B11: Quantum secure direct communication: transmitting secret information directly over quantum channels | Gui-Lu Long Tsinghua University, China |
| 08:55-09:20 | B12: Developments of practical quantum private query | Fei Gao Beijing University of Posts & Telecommunications, China |
| 09:20-09:45 | B13: Quantum public-key cryptosystems based on induced trapdoor one-way transformations | Li Yang Institute of Information Engineering, Chinese Academy of Sciences, China |
| 09:45-10:10 | B14: Permutationally Invariant Part of a Density Matrix and Nonseparability of N-partite States | Ting Gao Hebei Normal University, China |
| 10:10-10:25 | Session Break | |

Session: Quantum Communication IV Chair: Fei Gao

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| 10:25-10:50 | B15: QKD-based Quantum Private Query with Phase-Encoding | Bin Liu Chongqing University, China |
| 10:50-11:15 | B16: Correlation-elicitation attack on quantum cryptography protocols | Su-Juan Qin Beijing University of Posts & Telecommunications, China |
| 11:15-11:40 | B17: Exploration of multipartite entangled states by using weak nonlinearities | Fengli Yan Hebei Normal University, China |
| 12:00 | | |

Session: Liquid Crystal Chair: Humberto Híjar

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| 14:00-14:25 | A09: Quick Response of Liquid Crystal Decides the Speed of Ternary Optical Computer | Yi JIN Shanghai University, China |
| 14:25 -14:50 | A10: Real Time HDTV-to-4K Upconverter with Super Resolution for LCD | Seiichi Gohshi Kogakkan University, Japan |

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| 14:50 -15:05 | A11: A Comparative Analysis of Mesoscopic Simulation Methods of Nematic Liquid Crystals | Humberto Híjar La Salle University Mexico, Mexico |
| 15:05-15:30 | A12: Lipidic Cubic Phase Crystallization Technique | Wei Liu Arizona State University (ASU), USA |
| 15:30 -15:55 | A13: Structure and Dynamics of n-OCB in bulk and confined situations | Aziz Ghoufi Université de Rennes 1, France |
| 15:55-16:15 | Poster Session | |
| Session: Nanoparticles III Chair: Parisa A. Ariya | | |
| 16:15-16:40 | A14: Nanoparticle synthesis in water-in-supercritical carbon dioxide nano-dispersions | Masanobu SAGISAKA Hirosaki University, Japan |
| 16:40-17:05 | A15: Nanotechnology Towards Future In Vivo Tumor Imaging and Photodynamic Therapy Applications | Heyou Han Huazhong Agricultural University, China |
| 17:05-17:20 | A16: The capacitive effect of ribbon-like activated carbon for supercapacitor | Su-Jin Jang Korea Institute of Ceramic Engineering & Technology, Korea |
| 17:30 | Dinner Social | |
| Wednesday April 4 | | |
| Session: Nanoparticles IV Chair: Sang Hoon Kim | | |
| 08:00-08:25 | A17: Mesoporous organosilica hollow nanoparticles: interface-reassembly strategy and biomedical applications | Zhaogang Teng Jinling Hospital, Medical School of Nanjing University, China |
| 08:25-08:50 | A18: Ultrasmall-in-nano: unlocking the potential of inorganic nanomaterials for clinical applications | Valerio Voliani Center for Nanotechnology Innovation @NEST, Istituto Italiano di Tecnologia, Italy |

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| 08:50-09:15 | A19: Correlation between Magnetic Physical Properties and Underlayer Structures in TbFeCo | Yukiko YASUKAWA Chiba Institute of Technology, Japan |
| 09:15-09:40 | A20: Evaluation of anti-inflammatory effects of Fullerenol nanoparticles in vivo | Vesna Jačević National Poison Control Centre, Military Medical Academy, Serbia |
| 09:40-10:05 | A21: Mesoporosity influence of carbon additives on electrochemical performances of electrodes for Li-ion batteries | Johan Alauzun Institut Charles Gerhardt Montpellier, UMR5253 CNRS-UM2-ENSCM-UM1, Université Montpellier 2, France |
| 10:05-10:20 | Session Break | |
| Session: Nanoparticles V Chair: Valerio Voliani | | |
| 10:20 -10:45 | A22: Functionalized ceramic hybrid particles for beauty-care application | Jeong Ho Chang Korea Institute of Ceramic Engineering and Technology (KICET), Korea |
| 10:45-11:10 | A23: Arc plasma generated nanoparticles for environmental applications | Sang Hoon Kim Center for Materials Architecturing, KIST, Koreaa |
| 11:10-11:35 | A24: Preparation and property of fluoroalkyl end-capped oligomer/magnesium oxide nanocomposite particles | Hideo Sawada Hirosaki University, Japan |
| 11:35-11:50 | A25: Monolayer Assembly of Nanostructures for versatile application | Geon Dae Moon Korea Institute of Industrial Technology, Korea |
| 11:50-12:15 | A26: Synthesis of polymer-ferrite nanocomposites for energy storage | Gulfam Nasar Balochistan University of Information Technology, Engineering and Management Science (BUIEMS) Quetta, Pakistan |

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| 12:15 | Lunch Break |
| 18:00 | Dinner Social |
| Poster Session Tuesday April 3 15:55-16:15 | |
| P1: Facile synthesis of MnO ₂ /CNT nanocomposite and its electrochemical performance for supercapacitor | Kwang Chul Roh Korea Institute of Ceramic Engineering & Technology(KICET), Korea |
| P2: Semi-device-independent randomness expansion with partially free random sources | Qiao-Yan Wen Beijing University of Posts & Telecommunications, China |

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| Thursday April 5 One-Day Academic exchange & Excursion |
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