

Online PhD Summer Workshops by the NPU-QMUL AMAS

Joint Research Institute

西工大-伦敦玛丽女王大学先进材料与结构联合研究院

博士生线上暑期研讨会

一、会议时间：2020 年 7 月 15 日-17 日

Time: July 15th - 17th 2020

会议形式：线上会议（腾讯会议或 Voov）

Meeting Format: Online meeting (Tencent Meeting or Voov)

二、会议主办方：西北工业大学、伦敦玛丽女王大学

Hosted by: Northwestern Polytechnical University, Queen Mary University of London

三、会议议程（英文版）

Agenda (English Version)

July 15th, 2020 (Wednesday)

15:00-18:15 p.m. (Beijing Time), 8:00-11:15 a.m. (London Time)

| Session 1: Advanced Biomaterials: from Synthesis to Applications (Tencent Meeting Link: https://meeting.tencent.com/s/Oyg8kv8eDB2L Meeting ID: 186 125 718) | | | | |
|--|------------------|---------------|--|---------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 15:00-15:30 | 8:00-8:30 | Yumeng Xue | Multifunctional bioactive glass nanoparticles for bioimaging, drug delivery and tissue regeneration | Prof. Gleb |

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|-------------|-----------|-----------------------|---|------------|
| 15:30-15:45 | 8:30-8:45 | Rui Sun | Synthesis and characterisation of Novel antimicrobial chlorhexidine particles | Sukhorukov |
| 15:45-16:00 | 8:45-9:00 | Yixiao Li | Design and fabrication of gold nanocluster-encapsulated capsules for controlled antibacterial application | |
| 16:00-16.15 | 9:00-9:15 | Valeriya Kudryavtseva | Biocompatible coating enabling drug eluting on demand | |
| 16:15-16:30 | 9:15-9:30 | Jiaxin Zhang | Organic Microchamber array films for sensing, cargo encapsulation and inorganic microstructure templating | |
| 16:30-16:50 | 9:30-9:50 | Break | | |

| Session 1: Advanced Biomaterials: from Synthesis to Applications (Tencent Meeting Link: https://meeting.tencent.com/s/Oyg8kv8eDB2L Meeting ID: 186 125 718) | | | | |
|--|------------------|------------------------|---|----------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 16:50-17:05 | 9:50-10:05 | Wenfeng Guo | Multifunctional nano-treatment systems based on metal-organic frameworks | Prof. Li Shang |
| 17:05-17:20 | 10:05-10:20 | Lihui Peng | Protein nanosheets and cell culture on liquid substrates | |
| 17:20-17:35 | 10:20-10:35 | Shaohua Qu | In situ investigation on the protein corona formation of quantum dots by using fluorescence resonance energy transfer | |
| 17:35-17:50 | 10:35-10:50 | Jasmin Köhnken-Sa wall | Mechanisms governing fate determination of human MSCs on bone graft | |
| 17:50-18:05 | 10:50-11:05 | Hongxu Meng | Tracking stem cell differentiation on biomaterials via bio-AFM | |
| 18:05-18:15 | 11:05-11:15 | Conclusion | | |

July 16th, 2020 (Thursday)

15:00-18:30 p.m. (Beijing Time), 8:00-11:30 a.m. (London Time)

| Session 2: High Entropy Ceramics (Tencent Meeting Link: https://meeting.tencent.com/s/9Y0MneXAEyOI Meeting ID: 528 615 829) | | | | |
|--|------------------|---------------|--|---------------------------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 15:00-15:10 | 8:00-8:10 | Mike Reece | Opening Remarks | Prof. Mike Reece |
| 15:10-15:30 | 8:10-8:30 | Jan Dusza | Micro/nano mechanical characterization of HEC systems | |
| 15:30-15:50 | 8:30-8:50 | Yichen Wang | The Role of Multi-Elements and Interlayer on the Oxidation Behaviour of (Hf-Ta-Zr-Nb)C High Entropy Ceramics | |
| 15:50-16:10 | 8:50-9:10 | Tamas Csanadi | Micropillar deformation of high entropy carbide grains | |
| 16:10-16:30 | 9:10-9:30 | Zanlin Cheng | High temperature compression creep properties and microstructure evolution of TaC and (Ta-Hf-Zr-Nb)C | |
| 16:30-16:40 | 9:30-9:40 | Break | | |

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|--|------------------|------------|---|---------------------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 16:40-17:00 | 9:40-10:00 | Jie Xu | Ultra-low thermal conductivity and enhanced mechanical properties of high-entropy rare earth niobates | Prof. Feng Gao |
| 17:00-17:20 | 10:00-10:20 | Wei Xiong | High entropy perovskite ferroelectrics | |
| 17:20-17:40 | 10:20-10:40 | Man Zhang | High entropy Aurivillius phase ferroelectrics | |
| 17:40-18:00 | 10:40-11:00 | Zimeng Hu | High entropy layer structured compounds with super high T _c | |
| 18:00-18:20 | 11:00-11:20 | Ping Zhang | Microstructure and thermoelectric properties of high entropy | |

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| | | | (Ca _{0.2} Sr _{0.2} Ba _{0.2} La _{0.2} Pb _{0.2})TiO ₃ perovskite oxides | |
| 18:20-18:30 | 11:20-11:30 | Conclusion Prof. Feng Gao | | |

July 16th, 2020 (Thursday)

15:00-18:30 p.m. (Beijing Time), 8:00-11:30 a.m. (London Time)

| Session 3: Nano Energy (Tencent Meeting Link: https://meeting.tencent.com/s/ZPCG3tXCh7qR Meeting ID: 442 154 135) | | | | |
|--|------------------|--------------------|---|------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 15:00-15:10 | 8:00-8:10 | Dr. Zhe Li | Opening Remarks | Dr. Zhe Li |
| 15:10-15:30 | 8:10-8:30 | Dr. Paddy Cullen | Scalably-produced nanomaterials for energy applications | |
| 15:30-15:50 | 8:30-8:50 | Dr. Wei Gao | Electrode materials incorporated with cerium for efficient electrocatalysis | |
| 15:50-16:10 | 8:50-9:10 | Linh Tran Thi Ngoc | Hydroxide/lignin - derived fibre hybrid as 3D oxygen electrocatalyst | |
| 16:10-16:30 | 9:10-9:30 | Tuotuo Ma | Tackling the challenges for bioelectrocatalytic dioxygen reduction of enzymatic biofuel cells | |
| 16:30-16:40 | 9:30-9:40 | Break | | |

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|---|---------------|----------|---|----------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 16:40-17:00 | 9:40-10:00 | Qian Guo | Role of carbon dots -derived underlayer in hematite photoanodes | Dr. Xuanhua Li |
| 17:00-17:20 | 10:00-10:20 | Jian Han | Solution-processed Sb ₂ S ₃ planar thin film solar cells with a conversion efficiency of 6.9% | |

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|-------------|-------------|----------------------------------|---|--|
| 17:20-17:40 | 10:20-10:40 | Eva Mazzolini | Scalable fabrication of ITO-free, non-fullerene organic solar cells using roll-processing | |
| 17:40-18:00 | 10:40-11:00 | Bilin Wang | Heat diffusion-induced gradient energy level in multi-shell bi-sulfides for highly efficient photocatalytic hydrogen production | |
| 18:00-18:20 | 11:00-11:20 | Qinrong He | P-N junction-based ZnO textile nanogenerator for wearable energy harvesting | |
| 18:20-18:30 | 11:20-11:30 | Conclusion Dr. Xuanhua Li | | |

July 16th, 2020 (Thursday)

15:00-18:00 p.m. (Beijing Time), 8:00-11:00 a.m. (London Time)

| Session 4: Structural and Multidisciplinary Optimization (Tencent Meeting Link: https://meeting.tencent.com/s/9ROcMRiluWvS Meeting ID: 839 394 905) | | | | |
|--|------------------|---------------------------|--|------------------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 15:00-15:20 | 8:00-8:20 | Asst. Prof. Liang Meng | An emerging class of Hyperbolic Lattice exhibiting tunable elastic properties and impact absorption through chiral twisting. | Prof. Jihong Zhu |
| 15:20-15:40 | 8:20-8:40 | Elliot Bontoft | Multidisciplinary topology optimisation based on the Parametric Level Set method. | |
| 15:40-16:00 | 8:40-9:00 | Xinyu Hui | An integrated modeling of the curing process and transverse tensile damage of unidirectional CFRP composites | |
| 16:00-16:20 | 9:00-9:20 | Dongsheng Jia | Multidisciplinary topology optimisation based on the method of Moving Morphable Components. | |
| 16:20-16:40 | 9:20-9:40 | Break | | |

Session 4: Structural and Multidisciplinary Optimization
(Tencent Meeting Link: <https://meeting.tencent.com/s/9ROcMRiluWvS>
Meeting ID: 839 394 905)

| Time (Beijing) | Time (London) | Speaker | Title | Chair |
|---------------------------|--------------------------|----------------|--|--------------------------------------|
| 16:40-17:00 | 9:40-10:00 | Kaike Yang | Integrated optimization of actuators and structural topology of piezoceramic composites for static shape control. | Prof. Vassili Toropov |
| 17:00-17:20 | 10:00-10:20 | Ralf Schlaps | Multidisciplinary multiobjective optimisation of compressor blades with requirements of aerodynamics and ice impact. | |
| 17:20-17:40 | 10:20-10:40 | Yinfeng Cao | Comparative study of the fatigue limit of additive manufactured and rolled 316 steel based on self-heating approach | |
| 17:40-18:00 | 10:40-11:00 | Dr Xinwei Wang | A chance constrained programming model for airport ground movement optimisation with taxi time uncertainties. | |

July 17th, 2020 (Friday)

15:00-18:00 p.m. (Beijing Time), 8:00-11:00 a.m. (London Time)

| Session 5: Polymers and Composites (Tencent Meeting Link: https://meeting.tencent.com/s/RV29S0NezmxW Meeting ID: 108 424 169) | | | | |
|--|------------------|----------------|--|--------------------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 15:00-15:10 | 8:00-8:10 | Stoyan Smoukov | Opening Remarks | Dr. Stoyan Smoukov |
| 15:10-15:30 | 8:10-8:30 | E Emily Lin | Rotator phase transitions in alkanes | |
| 15:30-15:50 | 8:30-8:50 | Anureet Kaur | Development of re-processable elastomers | |
| 15:50-16:10 | 8:50-9:10 | Rehan Bhati | Light-Driven Polyethylene Artificial Muscles | |
| 16:10-16:30 | 9:10-9:30 | Break | | |

| Session 5: Polymers and Composites (Tencent Meeting Link: https://meeting.tencent.com/s/RV29S0NezmxW Meeting ID: 108 424 169) | | | | |
|--|------------------|------------|---|----------------------|
| Time (Beijing) | Time (London) | Speaker | Title | Chair |
| 16:30-16:50 | 9:30-9:50 | Xingyi Dai | Self-healing polymer design and application in flexible device | Prof. Jie Kong |
| 16:50-17:10 | 9:50-10:10 | Xun Fan | Conductivity network control in epoxy/graphene nanocomposite system based on aerogel structure and SC-CO2 foaming | |
| 17:10-17:30 | 10:10-10:30 | Dong Yang | Design, synthesis and application of novel boron ketoiminate fluorescent skeleton | |
| 17:30-17:50 | 10:30-10:50 | Ping Song | Honeycomb structural rGO-MXene/epoxy nanocomposites for superior electromagnetic interference shielding performance | |
| 17:50-18:00 | 10:50-11:00 | Conclusion | | |