# The Hong Kong University of Science and Technology

# Department of Mathematics and Croucher Lab

## A One-Day Workshop on Scientific Computing and Applied PDEs

| Time | Speaker | Title |
|---|---|---|
| 9:00-9:30am | **Prof. David J. Srolovitz** <br> **University of Pennsylvania** | **Capillarity-Driven Interfaces and Contact Lines in Materials Science** |
| 9:30-10:00am | **Prof. Fengbo Hang** <br> **Courant Institute, New York University** | **Sign of Green's Function of a Fourth Order Operator** |
| 10:00-10:20am | **Dr. Yichao Zhu** <br> **HKUST** | **A Continuum Model for Dislocation Dynamics in Three Dimensions and Its Applications in Micropillars** |
| 10:20-10:50am | **Coffee Break** | |
| 10:50-11:20am | **Prof. Huazhong Tang** <br> **Peking University** | **Direct Eulerian GRP Schemes for 1D & 2D (Special) Relativistic Hydrodynamics** |
| 11:20-11:50am | **Prof. Weiguo Gao** <br> **Fudan University** | **Efficient Algorithms for Transition State Calculation** |
| 11:50-12:10am | **Prof. Congming Jin** <br> **Zhejiang Sci-Tech University** | **Computing Transition Rates of Rare Events in Dislocation Dynamics** |
| 12:10 noon | **Lunch** | |
| 2:30-3:00pm | **Prof. Zhigang Xu** <br> **Maurice Lamontagne Institute, Fisheries and Oceans Canada** | **The All-Source Green's Function and Its Applications to Storm Surges, Tides and Tsunamis** |
| 3:00-3:30pm | **Prof. Xiaodong Yan** <br> **University of Connecticut** | **Uniqueness of Critical One Dimensional Neel Wall** |
| 3:30-3:50pm | **Dr. Shuyang Dai** <br> **University of Pennsylvania** | **Dislocation Structure and Energy of Twist and Semi-coherent (111) FCC Boundaries** |
| 3:50-4:10pm | **Dr. Boxi Xu** <br> **HKUST** | **An Iterative Regularization Algorithm for Inverse Source Problem of Helmholtz Equations with Multiple Wavenumbers** |

*Date:*     *11 August 2014, Monday*

*Venue:*     *Room 4505, Academic Building (near lifts 25&26), HKUST*

*All are welcome!*