

# MESOSCOPIC ELECTRO- MECHANICAL DEVICES: MANUFACTURING, PHYSICS, AND APPLICATIONS

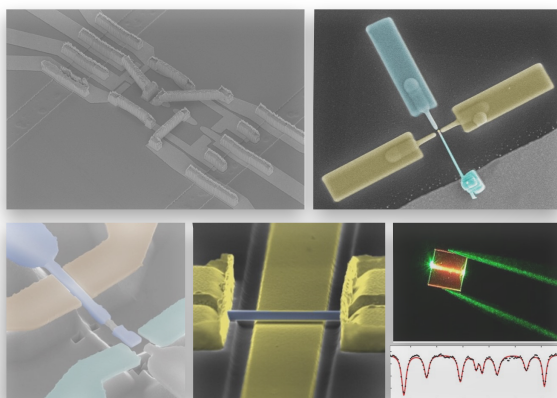
## INTERNATIONAL WORKSHOP

### August 24 – 28, 2020

The past few years have seen a startling and rapid development of the mesoscale systems that integrate the electronic, photonic and mechanical functionalities. The goal of this workshop is to discuss the recent advances in manufacturing, basic physics and applications of nanoelectromechanical devices, bringing together the leading experts and developing new collaborations between the experimental and theoretical groups. Particular emphasis will be given to the recent achievements in NEM device manufacturing and new functional principles based on the mesoscopic properties of nanometer size devices.

#### Topics include:

- ▶ NEM/MEM resonators
- ▶ Fluctuations far from equilibrium
- ▶ Classical & quantum sensing
- ▶ Charge, spin and heat transport
- ▶ Spin-active electric weak links
- ▶ Superconducting nano-electromechanics
- ▶ Hybrid quantum devices
- ▶ 2D & topological materials



To apply for participation in the Workshop, complete the online application form by **May 15, 2020**.

Workshop registration fee: 200,000 KRW (for all participants). Accommodation costs and meals will be covered by the PCS. Limited funding is available to partially cover travel expenses.

For further information, see [pcs.ibs.re.kr](http://pcs.ibs.re.kr) or contact the PCS Visitor Program at [pcs@ibs.re.kr](mailto:pcs@ibs.re.kr)

#### Venue:

- ▶ Institute for Basic Science (IBS) +82-42-878-8633  
Expo-ro 55, Yuseong-gu, Daejeon 34126, South Korea

#### Invited Speakers

Wolfgang Belzig (Germany)  
Yaroslav Blanter (Netherlands)  
Robert Blick (Germany)  
Ho Bun Chan (China)  
Sang-Jun Choi (Germany)  
Taeyoung Choi (Korea)  
Andrew Cleland (USA)  
Mark Dykman (USA)  
Ora Entin-Wohlman (Israel)  
Leonid Gorelik (Sweden)  
Suyong Jung (Korea)  
Dongkeun Ki (China)  
Dohun Kim (Korea)  
Kun Woo Kim (Germany)  
Tobias Kippenberg (Switzerland)  
Mikhail Kiselev (Italy)  
Gil-Ho Lee (Korea)  
Joon Sue Lee (USA)  
Fabio Pistolesi (USA)  
Danko Radić (Croatia)  
Mikhail Raikh (USA)  
Michael Roukes (USA)  
Elke Scheer (Germany)  
Eva Weig (Germany)

#### Scientific Coordinators

Robert Shekhter (Sweden)  
Donghun Lee (Korea)  
Hee Chul Park (Korea)

#### Organizers

Gileun Lee (Korea)  
Jaehee Kwon (Korea)

*Coordinator:* Dominika Konikowska (Korea)