



IUMRS-ICEM 2018

AUGUST 19(SUN.) - 24(FRI.), 2018 / DAEJEON, KOREA

Session Title	Device Materials Modeling	Session Code	Th-I2
Date and Time	2018-08-23 / 13:30 - 15:30		
Place	Room I		
Session Chair	TBA		

Th-I2-1

13:30 - 14:00

[Invited] Quantum Transport Device Simulation based on Real-Space Density Functional Theory and Non-Equilibrium Green's Function Method

Nobuya Mori¹, Gennady Mil'nikov¹, Jun-Ichi Iwata², and Atsushi Oshiyama²
¹Osaka Univ., Japan, ²Univ. of Tokyo, Japan

Th-I2-2

14:00 - 14:30

[Invited] Magnon-Phonon Interaction in YIG and Effective Spin Pumping through the YIG-Metal Interfaces

Ke Xia
Beijing Normal Univ., China

Th-I2-3

14:30 - 14:45

Dispersion Dynamics in HiTc

Antony J. Bourdillon
UHRL, USA

Th-I2-4

14:45 - 15:00

Spin Circuit Model for Materials with Spin-Momentum Locking

S. Hong¹, S. Sayed², and S. Datta²
¹KIST, Korea, ²Purdue Univ., Korea

Th-I2-5

15:00 - 15:15

Origin of Negative Differential Resistance in Graphene-based Vertical Tunneling Devices: an ab Initio Study

Han Seul Kim^{1,2} and Yong-Hoon Kim²
¹KISTI, Korea, ²KAIST, Korea

Th-I2-6

15:15 - 15:45

[Invited] Atomic Engineering and Atomistic Modelling of Donor-based Silicon Devices

Bent Weber^{1,2,3}
¹Nanyang Tech. Univ., Singapore, ²ARC Centre of Excellence for Quantum Computation and Communication Tech., Australia, ³Univ. of New South Wales, Australia