# Nov. 24 (Thu) 9:30 - Nov. 25 (Fri) 12:30 (E6, Rm. 5318) The 2<sup>nd</sup> OpenMX developer's meeting



The 2nd OpenMX developer's meeting will be held in KAIST, Daejeon, South Korea, for Nov. 24th and 25th, 2016. Recent development and implementation of new functionalities will be discussed including some advanced applications using OpenMX. The meeting will provide a good opportunity for active developers to exchange their ideas, and promote further development of OpenMX. We also encourage researchers, who are interested in contributing to development of OpenMX, to attend the informal meeting.

#### Nov. 24 (Thu) 9:30 - 17:30, E6 Rm. 5318

T. Ozaki (Univ. of Tokyo)

C.-C. Lee (Univ. of Tokyo)

Y.-T. Lee (KAIST)

M. J. Han (KAIST)

M. Shin (KAIST)

M. Ohfuchi (Fujitsu Lab)

M. Kawamura (Univ. of Tokyo)

M. Fukuda (Univ. of Tokyo)

J. Yu (SNU)

T. Ozaki (Univ. of Tokyo)

#### **Topic**

Core level bindng energies in solids from first-principles

Combining LCAO basis functions with plane waves in OpenMX

codes for excitation calculations

Implementation of phonon dispersion with LO-TO splitting for

polar materials

Calculating branching ratio and spin-orbit coupling from first-principles

DFT-based NEGF simulations of nanoscale FETs

Large-scale electronic structure calculation method in OpenMX

Currentdensity and eigenchannel: Implementation and application

Toward on O(N) method for the non-equillibrium Green's function

calculation

Development of OpenMX calculator interface for ASE (Atomic Simulation

Environment) and its applications.

Development of OpenMX viewer

### Nov. 25 (Fri) 9:30 - 12:30, E6 Rm. 5318

## Speaker

H. Weng (CAS)

H. Sawahata (Kanazawa Univ.)

F. Ishii (Kanazawa Univ.)

A. Ito (NIFS)

T. Ozaki (Univ. of Tokyo)

#### **Topic**

TBA

Z2 topological invariants and Chern number

Application of interface to Wannier90: anomalous Nernst effect

Hybrid simulations for plasma material interaction with OpenMX

Stress and variable cell optimization in OpenMX

#### Information

Hompage: http://www.openmx-square.org/workshop/meeting16/

Location: Natural Science Building (E6), KAIST, Daejeon, South Korea