

SISPAD2020 Workshop 2 (updated on Aug. 6)

Multiscale Approach from Atoms to Device: Toward Predictive Simulation

Organizer: Hideki Minari (Sony Semiconductor Solutions) Co-organizer: Junichi Hattori (AIST)

All presentations are given on the SISPAD 2020 conference website as on-demand video contents.

Adri van Duin (Pennsylvania State University)

Atomistic-scale simulations on complex chemical events at silicon and silica interfaces using the ReaxFF reactive force field (Tentative)

Takanobu Watanabe (Waseda University)

Dipole-induced Flat Band Voltage Shift in High-k Gate Stacks Simulated by Classical Molecular Dynamics (Tentative)

Yuji Mukaiyama (STR Japan K.K.)

Numerical Modeling of Effect of Thermal Stress and Heavy Doping for Behavior of Intrinsic Point Defects in Si Crystal Growing by Czochralski Method (Tentative)

Takeo Hoshi (Tottori University)

100-nm-scale electronic state calculation and data-driven science for organic flexible device materials (Tentative)

Andrea Padovani (Applied Materials)

A material to device modeling approach for emerging technologies: the role of atomic defects in RRAM, 3D-NAND and Ferroelectric devices (Tentative)

Ryosuke Sawabe (Keio University)

Quasi-Self-consistent Monte Carlo Simulations Considering Local Phonon Distribution on High-Frequency GaN HEMTs (Tentative)

Gennady Mil'nikov (Osaka University)

The RSDFT-EM Representation and First Principle Transport Simulations of Realistic Field-Effect Transistors (Tentative)