

Symposia - G04
Intelligent Computing for Materials

October 15 (Sunday), 2023

Conference Room: 7111A, -1# floor

9:00-10:50 Session I
Chair: Jie Wang, Guo-Liang Yu

9:00-9:30 (G04-01)
Ab initio artificial intelligence (Invited)
Yong Xu, Tsinghua University, China

9:30-10:00 (G04-02)
Efficient simulation of photo-induced dynamics processes and their spectroscopic characterization (Invited)
Li-Peng Chen, Zhejiang Laboratory, China

10:00-10:30 (G04-03)
Machine Learning Guided Screen of Organic Luminescent Materials (Invited)
Dandan Song, Beijing Jiaotong University, China

10:30-10:50 (G04-04)
Physics-informed neural networks for ferroelectric microstructure evolution and their application to identify model parameters (Oral)
Lan Shang, Zhejiang Laboratory, China

10:50-11:00 Coffee Break

11:00-11:50 Session II
Chair: Yong Xu, Yun-Song Li

11:00-11:30 (G04-05)
Intelligent prediction framework for crystalline materials with causal analytic relationships (Invited)
Jian Yu, Zhejiang Laboratory, China

11:30-11:50 (G04-06)
Active learning assisted high-throughput phase-field design of linear-superelastic NiTi alloys with controllable modulus driven by temperature gradients (Oral)
Chun-Yu Wang, East China University of Science and Technology, China

12:00-14:00 Lunch

14:00-15:40 Session III
Chair: Dan-Dan Song, Jian Yu

14:00-14:30 (G04-07)
Phase field modeling of topological domain in ferroelectric and ferromagnetic materials

(Invited)
Jie Wang, Zhejiang University, China

14:30-15:00 (G04-08)
Multi-scale Simulations of Electrodeposition Morphology Evolution of Metal Electrodes (Invited)
Yun-Song Li, Zhejiang Laboratory, China

15:00-15:20 (G04-09)
Dynamical behaviour of magnetic skyrmion in collision model (Oral)
Sheng-Bin Shi, Zhejiang University, China

15:20-15:40 (G04-10)
Numerical simulation of asphalt mixtures crack branching and coalescence using ordinary state-based peridynamics (Oral)
Li Ruan, Zhejiang Laboratory, China

15:45-15:55 Coffee break

15:55-17:25 Session IV
Chair: Chun-Yu Wang, Li-Peng Chen

15:55-16:25 (G04-11)
Dynamics of voltage-controlled strain-induced magnetic domain walls (Invited)
Guo-Liang Yu, China Jiliang University, China

16:25-16:45 (G04-12)
Room-Temperature Electric Field-Controlled Thermal Switch Based on Tetragonal Barium Titanate through Second-Principles Calculation (Oral)
Jing-Tong Zhang, Zhejiang Laboratory, China

16:45-17:05 (G04-13)
Two-dimensional chalcogenides chiral ferromagnetic materials from high throughput computational screening (Oral)
Peng Han, Zhejiang University, China

17:05-17:25 (G04-14)
A Novel Localization Method of Magnetic Skyrmions by Strain Regulation (Oral)
Yun-Hong Zhao, Zhejiang Laboratory, China

17:50 Dinner