

CCS International Symposium 2021
**13th symposium on Discovery, Fusion, Creation of New Knowledge
by Multidisciplinary Computational Sciences**

October 8, 2021

<https://www.ccs.tsukuba.ac.jp/sympo20211008en/>

Parallel Session 4: Material science

Time: 16:15 – 17:53 (JST)

Place: <https://zoom.us/j/95540787453>

Convenor: OTANI Minoru (CCS, University of Tsukuba)

Time (5 + 2 min. each)	Speaker (Affiliation)	Title
16:15 – 16:22	HAYASHI Toshiaki (NTT Corporation)	Higher order perturbation of voltage potential on variable-range hopping transport
16:22 – 16:29	FUKUI Kiyu (Univ. of Tokyo)	Functional renormalization group study on the feasibility of Kitaev quantum spin liquid
16:29 – 16:36	HOSHI Takeo (Tottori Univ.)	Novel structure analysis method for two-dimensional material by massively parallel data-driven science
16:36 – 16:43	HASHMI Arqum (QST)	Spin-valley polarization in 2D materials
16:43 – 16:50	SEKIKAWA Takuya (Niigata Univ.)	First-principles and quantum many-body calculations for electronic states and superconductivity in Tungsten Bronze A_xWO_3
16:50 – 16:57	MATSUSHITA Yu-ichiro (Tokyo Tech)	Theoretical study for the reduction of interface states in SiC/SiO ₂
16:57 – 17:04	ONO Tomoya (Kobe Univ.)	First-principles electronic-structure and transport-property calculations using RSPACE code
17:04 – 17:11	UEMOTO Mitsuharu (Kobe Univ.)	Design of Nanophotonic Device by Large-Scale Ab-initio Calculation

17:11 – 17:18	YAMADA Shunsuke (Univ. of Tsukuba)	First-principles study for maximizing efficiency of high-order harmonic generation from nano-scale thin films
17:18 – 17:25	YABANA Kazuhiro (Univ. of Tsukuba)	Quantum effects in optical response of plasmonic meta-surface
17:25 – 17:32	YAMADA Atsushi (Univ. of Tsukuba)	Terahertz generation spectroscopy by Maxwell + MD multiscale simulation
17:32 – 17:39	TONG Xiao-Min (Univ. of Tsukuba)	Carrier-Envelope-Phase Dependent Strong-Field Excitation
17:39 – 17:46	KOIZUMI Hiroyasu (Univ. of Tsukuba)	Cuprate superconductor qubits
17:46 – 17:53	KOBAYASHI Nobuhiko (Univ. of Tsukuba)	Theory of electronic devices by large-scale first-principles charge transport calculations