

13th Symposium on Discovery, Fusion, Creation of New Knowledge by Multidisciplinary Computational Sciences

Online

October 8, 2021

Hosted by
Center for Computational Sciences (CCS),
University of Tsukuba

Registration

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

Registration deadline is **September 30, 2021**
The registration is free.



Program

9:00 – 18:00

9:00-9:10

Opening address

WADA Hiroshi

University of Tsukuba, Vice President

BOKU Taisuke

University of Tsukuba, Director of CCS

9:10-9:45

DURRAN Dale

University of Washington

“Can deep learning replace current numerical weather prediction models?”

9:45-10:20

OGITSU Tadashi

Lawrence Livermore National Laboratory

“Development and application of real-time time-dependent density functional theory (RT-TDDFT) code, INQ, optimized for hybrid CPU-GPU HPC systems”

10:30-11:05

HIROKAWA Takatsugu

University of Tsukuba

“In silico drug discovery using molecular modeling and simulation”

11:05-11:40

LOH Woong-Kee

Gachon University

“Robust fault detection and clustering in semiconductor manufacturing processes”

11:40-12:15

ASAHINA Yuta

University of Tsukuba

“General relativistic radiation magnetohydrodynamics simulations of black hole accretion flows based on solving the radiative transfer equation”

13:15-13:50

KOPELMAN Naama

Holon Institute of Technology

“Bioinformatics in the 21st century: populations, viruses and proteins for a better future”

13:50-14:25

NAKADA Hitoshi

Chiba University

“Self-consistent nuclear structure calculations with Gaussian basis-functions”

14:35-14:55

TATEBE Osamu

University of Tsukuba

“Cygnus-BD supercomputer for data-driven and AI-driven Science”

14:55-15:30

LEHNER Christoph

University of Regensburg

“The muon anomalous magnetic moment: how supercomputers can help us find new physics”

15:30-16:05

PLESSL Christian

Paderborn University

“Three years of using FPGAs in an HPC production system: Experiences, lessons learned, and open challenges”

16:15-18:00

Parallel Session

Report of Multidisciplinary Cooperative Research Program in 2020

Session1 (Particle physics)

Session2 (Astrophysics)

Session3 (Nuclear physics)

Session4 (Material science)

Session5 (Life science, Chemistry, Biology)

Session6 (Numerical analysis, Computational informatics)

Session7 (Global environment, HPC systems)

* Detail information is available on CCS Homepage: <https://www.ccs.tsukuba.ac.jp/sympo20211008en/>

Organizing Committee

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