2024 Research Symposium **Agenda**

Ohio Supercomputer Center

April 9, 2024

Time	Session
9:00 am–9:30 am	**Check-in and poster setup**
9:30 am–10:30 am	**AM Plenary Session (30 minutes each)**
	(IN-PERSON) **Sultana Nahar,** *The Ohio State University* The IRON Project for the study of the Sun: Computations using HPC of OSC
	(IN-PERSON) **Hang Yi**, *Wright State University* Developing a Benchmarked Pathway for Computational Hemodynamic Predictions in Intracranial Aneurysms
10:30 am–11:30 am	**AM Flash Talks (10 minutes each with 5-minute Q & A)**
	(VIRTUAL) **Tianyu Lu**, *The Ohio State University* TIR-Learner v3: New generation TE annotation program for identifying TIRs
	(VIRTUAL) **Sai Kumar Reddy Putha**, *Youngstown State University* Enhancing Scalability and Efficiency in Distributed GNN Training: Analyzing GPU Allocation and Batch Size Variations
	(IN-PERSON) **Anju Gupta**, *The University of Toledo* A survey of statistical and machine learning models for membrane forecast: an experimentally informed approach
	(IN-PERSON) **Maede Najian**, *Cleveland State University* Integrated CFD-Microclimate Analysis for Enhanced Urban Building Energy Modeling
11:30 am–12:15 pm	**Lunch & OSC Cardinal Overview**
12:15 pm–1:15 pm	**Poster Session** (ALL IN-PERSON)
	Amonie Akens, *Central State University* PractiCenter AI Melody Generator
	Eric Fagerberg, *The Ohio State University* Improving side-chain dihedral potentials in protein force field with crystallographic data
	Anish Gupta, *Ohio Dominican University* Preliminary Calculations of the Chemical Mechanism of the Unusual Photochemical Rearrangement of Diaryl-2(3H)-furanones
	Olivia Maynard, *The Ohio State University* Planet-Planet Scattering: A Potential Explanation for Unusual A(Li) Values in Exoplanetary Hot Jupiter Systems

Time	Session
12:15 pm–1:15 pm	**Sultana Nahar**, *The Ohio State University* OSC partnership in global research training based course on atomic astrophysics with computational workshops
	Indranil Nayak, *The Ohio State University* Accelerating Electromagnetic Simulations using On-the-Fly Dynamic Mode Decomposition
	Brady Phelps, *Ohio University* Securing ADS-B Messages with Quantum Key Distribution
	Meera Rajagopal, *The Ohio State University* Quantifying Transposable Element expressions within Zea mays
	Haitham Saleh, *The Ohio State University* Accuracy Analysis of Computational Orbital Trajectories in Particle-In-Cell Simulations for Kinetic Plasmas
	Meaghan Stafford, *Hiram College* Effects of Oxygen on Heliobacterial Photosynthesis
	Manikya Swathi Vallabhajosyula, *The Ohio State University*, Hey AI! can you allocate resources for me with cost, and time constraints?
	Zongqi Lu, *Rose-Hulman Institute of Technology* Explore the Electronic, Spectroscopic, Kinetic and Dynamic Properties of PhCN via Quantum Mechanical Calculations
1:15 pm–1:30 pm	**Afternoon Break & Snacks**
1:30 pm–2:15 pm	**PM Flash Talks (10 minutes each with 5-minute Q & A)**
	(IN-PERSON) **Alexander Hoover**, *Cleveland State University* Life in Moving Fluids: Computational Modeling of Swimming and Flying Organisms
	(VIRTUAL) **Shawn Ryan**, *Cleveland State University* Decoding Biological Complexity with Mathematical Modeling and HPC
	(VIRTUAL) **Xiche Hu**, *The University of Toledo* Molecular Basis for the High Infectivity of SARS-CoV-2 Omicron Variant–A Quantum Chemical Study
2:15 pm–3:15 pm	**PM Plenary Session (30 minutes each)**
	(IN-PERSON) **Nimra Siddiqui**, *Youngstown State University* Dr. Lego: AI-Powered Block Code Analysis Tool
	(VIRTUAL) **Christine Morales**, *University of Mount Union* Opening Portals: Lowering Barriers to Undergraduate Student Engagement through Computational Chemistry
3:15 pm	**Closing Remarks**