MELIORA

UNIVERSITY OF ROCHESTER
SCHOOL OF ARTS & SCIENCES
HAJIM SCHOOL OF ENGINEERING & APPLIED SCIENCES

GRADUATE RESEARCH DAY

FEATURING RESEARCH TALKS & POSTERS BY GRADUATE STUDENTS ACROSS DISCIPLINES

THURSDAY • APRIL 2 • 2026

UNIVERSITY OF ROCHESTER RIVER CAMPUS

EVENT PROGRAM

APRIL • 2 • 2026

OPENING REMARKS	**8:50AM TO 9:00AM**
10 MINUTE GRADUATE RESEARCH TALKS	**9:00AM TO 12:00PM**
PROFESSIONAL DEVELOPMENT WORKSHOPS	**12:30PM TO 1:30PM**

- HOW TO NETWORK: STRATEGIES FOR BUILDING CAREER CONNECTIONS DURING YOUR GRADUATE EDUCATION & BEYOND
- HOW TO PRESENT YOUR RESEARCH

GRADUATE POSTER SYMPOSIUM	**2:00PM TO 4:00PM**
NETWORKING RECEPTION	**4:00PM TO 5:00PM**

AWARDS PRESENTED BY SAS|HAJIM DEAN OF GRADUATE EDUCATION & POSTDOCTORAL AFFAIRS NICK VAMIVAKAS

SPECIAL THANKS TO...

- THE VOLUNTEER JUDGES
- THE OFFICE OF ALUMNI RELATIONS & CONSTITUENT ENGAGEMENT
- THE WRITING, SPEAKING & ARGUMENT PROGRAM
- RIVER CAMPUS LIBRARIES
- THE GRADUATE STUDENT PRESENTERS!

Graduate Research Talks

Time	Speaker
9:00-9:15	**Teona Taseska** Chemical Engineering "Next Generation Electrodes Based on Hydrophilic Carbon Fiber Paper"
9:15-9:30	**Huang, Songsong** Social-Personality Psychology "Metamotivation: Joint effects of personal achievement goals and classroom goal climate"
9:30-9:45	**Anushka Jain** Biology "Structural proteomics of the human ubiquitinome"
9:45-10:00	**Aida Gueye** Materials Science "Influence of A Metal Identity on Surface O-H Bond Dissociation Free Energy from Binary Oxides (AxOyHz, A = Co, Fe, Ni, Zn) to Spinel Ferrite (AFe2O4) Nanoparticles"
10:00-10:15	**Ashley Labodda** Philosophy "Big Brother: Journalism, Education, and Democracy"
10:15-10:30	**BREAK**
10:30-10:45	**Irin Aby** Chemistry "Metal-Organic Frameworks for PFAS Abatement"
10:45-11:00	**Adam Roberts** Political Science "Beyond Borders: Evaluating the Efficacy of Sub-National Informational Comparisons"
11:00-11:15	**Sydney Louden** Geosciences "Aerobic methane oxidation in the Great Lakes: Investigating the controls on methane removal in the world's largest group of lakes"
11:15-11:30	**Hamed Ajorlou** Electrical Engineering "BUILD with Precision: Bottom-Up Inference of Linear DAGs"
11:30-11:45	**Yasaman Baghban** Visual and Cultural Studies "Censorship and the Formation of Underground Cinema in Contemporary Iranian Cinema"
11:45-12:00	**Karishma Ramesh** Chemistry "Structural Effects of Two Mini-Proteins for Photochemical CO_2 Reduction in Water"

Graduate Poster Presenters

Engineering & Math

- **Adnan, T M Tariq.** Computer Science. “Multimodal Remote Digital Phenotyping for Detecting and Tracking Early Parkinsonian Change in LRRK2 Carriers”
- **Chimera, Charles**. Electrical Engineering. “Detection of Chemical Treatment and Frequency Filtering in Multilayer Copy Paper Samples Using Terahertz Time-Domain Spectroscopy”
- **Fadial, Eloise**. Biomedical Engineering. “PRDM16 Coordinates Genetic and Epigenetic Programs Governing Chondrogenesis and Chondrocyte Phenotype Specification in the Knee Joint”
- **Fan, Xingzhong**. Computer Science. “SEEDSCAN: Interactive Brain Region Discovery over Voxel-level Correlation”
- **Farhadi, Erfan**. Computer Science. “Beetrap-MC: A Minecraft-Based AI Literacy Tool for Teaching Filter Bubbles to Middle School Students”
- **Garcia-Hernandez, Sergio E.** Biomedical Engineering. “Role of Cell-Matrix Mechanical Communication During Lumen and Tubule Formation”
- **Hasan, Masum**. Computer Science. “HAL: Inducing Human-likeness in LLMs with Alignment”
- **Huang, Jinfa (Jerry).** Computer Science. “SpecEyes: Accelerating Agentic Multimodal LLMs via Speculative Perception and Planning”
- **Jiang, Liuyuan.** Electrical Engineering. “Beyond Value Functions: Single-Loop Bilevel Optimization under Flatness Conditions”

- **Kassis, George.** Biomedical Engineering. “Shared-Control Robotic Ultrasound for Otolaryngologic Diagnostic Imaging of the Head and Neck with Safe Continual Learning”
- **Khadka, Biraj.** Mechanical Engineering. “Bayesian Inference for Parameter Estimation in Perivascular Cerebrospinal Fluid Flow”
- **Khan, Tasin.** Computer Science. “Toward Accessible Video Conferencing for Blind and Low-Vision Users: A Multimodal, Role-Aware Assistive Framework”
- **Li, Shiquan (Sophus)**. Mathematics. “Stretching of Polyelectrolytes”
- **Meng, Ziyi.** Materials Science. “Complete Aqueous Defluorination of Per- and Polyfluoroalkyl Substances by Pulsed Electrolysis with Tailored Potential Modulation”
- **Nimoh, Dennis.** Biomedical Engineering. “Automatic TMJ Segmentation to Facilitate Patient-Specific Chairside Kinematic Analysis”
- **Pagnotta, Kaley.** Biomedical Engineering. “Integration of Quantitative Biomechanical Analysis in Non-Research Settings via an Automated Pipeline”
- **Pate, Neeley.** Computer Science. “Replicating Human Motivated Reasoning Studies with Large Language Models”
- **Paul, Swastik.** Chemical Engineering. “Deciphering the Role of Cations in the CO oxidation reaction pathway”
- **Ranjan, Aditya.** Mechanical Engineering. “Estimating the permeability of brain tissue through CFD simulations of flow in realistic geometries”

- **Sharma, Bhupendra.** Mechanical Engineering. “Enhanced Nonlinear Hall Effect in a Designed W0.5Mo0.5Te2 Monolayer”
- **Srirangam, Snehitha.** Chemical Engineering. “Designing Inverse Metal-Oxide Interfaces for Selective Catalysis”
- **Steiner, Colin.** Materials Science. “Determining Refractive Index of Materials Through Terahertz Frequency-Domain Spectroscopy and the Fresnel Equations”
- **Swar, Sayan.** Electrical Engineering. “Interpretable Spectral Representations of Planetary Signals in Vector Spaces (Spec2VEC)”
- **Tashbib, Eliya Tazreena.** Chemical Engineering. “PRDM16 is required for normal nasal septal cartilage and bone development in mice”
- **Tecse Castillo, Aldo.** Biomedical Engineering. “Non-contact optical coherence elastography enables decoupling of corneal mechanical properties from intraocular pressure”
- **Tian, Baotong.** Electrical Engineering. “Conan: A Chunkwise Online Network for Zero-Shot Adaptive Voice Conversion”
- **Zengin, Irem.** Electrical Engineering. “A Remote Power Analysis Attack on Mobile Shared-memory Devices”

Natural Sciences

- **Alex, Nimmy Sarah.** Physics. “Ghost in the Machine: Neutrino Interactions Without Nuclear Rupture”
- **Arnold, Brennan.** Physics. “The microscopic physics of freezing stars”
- **Bader, Noah.** Chemistry. “Bi-Directional Peptide Design: Investigating Chirality and Backbone Flexibility in Supramolecular Self-Assembly”
- **Every, Madeline.** Geosciences. “A Low-Cost, Automated, and Adaptable System for Field-Based Measurement of PCO2, PCH4, and Associated Variables in Groundwater”
- **Ghosh, Shruti.** Chemistry. “Low-Molecular-Weight Phenylalanine Hydrogels as Antibacterial Agents”
- **Holmes, Karine.** Geosciences. “Deconstructing Signals from the Coastal Carbon Cycle”
- **Huffman, Lucy.** Chemistry. “Light and dark reactivity of a room temperature stable, high-spin iron(IV)-oxo”
- **Jaiswal, Vartika.** Chemistry. “Controlling Ion Transport via Oriented MOF Thin Films Modified Electrodes “
- **Jasko, Alex.** Geosciences. “High-Pressure Electrical Conductivity Estimates for Ferropericlase and Implications for Dynamo Generation in Earth-Like Basal Magma Oceans”
- **Karlin, Hannah.** Chemistry. “Rational Design of a Stimuli-Responsive Amphipathic Peptide Assembly”
- **Kibler, Megan.** Brain & Cognitive Sciences. “Communicative Intent Changes Structural Characteristics of Jazz Solos”
- **Leon Baxin, Roberto.** Chemistry. “Palladium-Catalyzed Synthesis of sp3-rich Nitrogen Heterocycles Enabled by Urea Ligands “
- **Li, Jiayun.** Chemistry. “Synthesis, Characterization, and Structure Determination of Fused Oxazolidine Complexes of Molybdenum”
- **Morin, Jacqueline.** Biology. “Sft2 is a conserved membrane regulator for autophagy and the secretory pathway”

- **Nauter-Alves, Andressa.** Geosciences. “Evaluating temperature and carbonate chemistry effects on benthic foraminiferal Mg/Ca, Mg/Li, Sr/Ca, and B/Ca: A global coretop compilation and revised calibrations”
- **Panda, Rishab.** Chemistry. “Study of the interactions of novel antimicrobial and amphipathic peptides with lipid membranes”
- **Poddar, Santanu.** Chemistry. “Making Excitons Move Ballistically Using Polaritons”
- **Rahmat, Jabale.** Biology. “Targeted editing of pericentromeric satellite DNA alters sensitivity to meiotic drive”
- **Reger, Noah.** Biology. “From cell to self: dAnp32 functions with Jabba to promote early embryonic development”
- **Reynoso, Jose.** Brain & Cognitive Sciences. “ On the efficacy of temporal visual speech cues for comprehending degraded speech and for solving the cocktail party problem.”
- **Robato, Jennika.** Chemistry. “C-H Activation of Azine-Type Heterocycles via Cp*Rh(PMe_3)PhH for Parahydrogen-Induced Polarization”
- **Roy, Abhishek.** Chemistry. “Developing Photoswitchable GTP Analogs to Control Protein Assembly”
- **Sam, Akza.** Physics. “Streamer Crashes onto Young Protostar: Delivering Mass and Driving Shocks”
- **Sithari, Hashini.** Chemistry. “Controlled Synthesis and Characterization of Colloidally Stable Ternary Thiospinels”
- **Tiwari, Shivanshi.** Physics. “A Framework for Verifying Robustness in Neutrino Modeling”
- **Yoon, Jin Hyeok.** Chemistry. “Copper Pyridonate Mediated Chan-Evans-Lam Coupling”

Humanities and Social Sciences

- **Wang, Yun-Cheng Dylan.** “Some Religious Beliefs Are Delusional but That’s OK”
- **Garg, Tanya.** Clinical Psychology. “Skin Conductance in Trauma and PTSD: A Systematic Review of Clinical Outcomes and Experimental Paradigms”
- **Hutson, Lauren.** Clinical Psychology. “Child maltreatment and accelerated brain aging in mid-adulthood: a prospective investigation”
- **Park, Nicole.** Developmental Psychology. “Deciding Together or Alone?: Children’s Expectations of Leaders’ Decision-Making Behaviors”