

AI for Science and Engineering Collaboration Workshop (IDEaS)

Date: Monday, October 13, 2025

Location: Presidential Suite A and B in the Student Success Center

Morning Session

9:00 – 9:05 — Welcome & Opening Remarks (Xiaoming)

9:05 – 9:15 — IDEaS (David)

9:15 – 9:45 — Keynote Addresses

9:15 – 9:30 — Keynote Address #1 (AI for Science – College of Science) [Dimitrios]

9:30 – 9:45 — Keynote Address #2 (ARTISAN) [Suresh]

9:45 – 10 :30 — Faculty Research Presentations

9:45 – 10:00— AI-Accelerated Digital Twins for Underground Energy Operations — Herrmann, Felix (CoS – EAS)

10:00 – 10:15— Neuro-symbolic AI and reasoning models for the mathematical sciences — Ghosh, Aishik (CoS – Physics)

10:15 – 10:30— Intelligent Geo-Therapeutics: AI for Subsurface Diagnosis, Intervention, and Prediction — Han, Gyeol (CoE – CEE)

10:30– 10:45 — Coffee Break

10:45 – 11:30 — Speaker Presentations

10:45 – 11:00 — Inclusive design to improve usability of AI-powered systems for Georgia industries — Curtis-Davidson, Bill (CoD – CIDI)

11:00 – 11:15— CSSE@GT: A Center for Scientific Software Engineering, to Bring Prototypes to Products — Vuduc, Rich (CoC – CSE)

11:15 – 11:30— Decoding the Hidden Secondary Structure of Phosphorylated Intrinsically Disordered Proteins — Torres, Matthew (CoS – Biological Sciences)

11:30 – 12:00 — Interactive Brainstorming Session #1 (Research Gaps & Opportunities)

Lunch

12:00 – 12:45 — Lunch (provided, networking encouraged)

Afternoon Session

12:45 – 1:00 — Strengthening Group Proposals – Renata (South Big Data Hub)

1:00 – 1:30– TECH AI/ Research - Industry Collaborations [Pascal?]

1:30– 2:15 — Speaker Presentations

1:30 – 1:45— Translating Molecular Signatures into Smart Water Intelligence — Xiang, Yingying (CoE – CEE)

1:45– 2:00 — "AI for the Frontiers of Experimental Physics" Li, Pan (CoC – CSE)

2:00 – 2:15— Reinforcement Learning for Engineering Problems — Maguluri, Siva Theja (CoE – ISyE)

2:15 – 2:30— Coffee Break

2:30 – 3:00 — Speaker Presentations

2:30– 2:45 — Assessing and Improving Functional and Artistic Performance of Human Movement through AI/ML-Neuroscience Integration — Shinohara, Minoru (CoS – Biological Sciences)

2:45 – 3:00 — I Physics-Informed Gaussian Process for ODE/PDE Simulation and Calibration — Yang, Shihao (CoE – ISyE)

3:00 – 3:30 — Interactive Brainstorming Session #2 (Collaboration Roadmap)

3:30 – 4:00 Panel of Editors (Perspectives on Publishing AI & Engineering Research)/Closing

- Professor Paynabar, Kamran; editor of Technometrics
- Professor Ding, Yu; editor of INFORMS Journal on Data Science
- Professor Sherrill, David; editor of Journal of Chemical Physics