

NSF Workshop on the Future of AI+MPS

Monday, 24 March 2025 - Wednesday, 26 March 2025

Scientific Programme

The NSF Workshop on the Future of AI and the Mathematical and Physical Sciences (AI+MPS) will include invited participants from each MPS domain who are experts in their field to contribute their perspectives on AI both in their fields and in interdisciplinary research. The invited participants will have the opportunity to present case studies and will be active contributors to the resulting white paper.

Confirmed invited participants from each domain include:

AST - Astronomical Sciences

Yuan-Sen Ting, The Ohio State University (Co-Organizer)
Andy Connolly, University of Washington
Eric Ford, Penn State
Cecilia Garraffo, Harvard-Smithsonian Center for Astrophysics
Salman Habib, Argonne National Laboratory
Aggelos Katsaggelos, Northwestern University
Peter Melchior, Princeton University
Brice Menard, Johns Hopkins University
Stella Offner, University of Texas at Austin
Uros Seljak, University of California, Berkeley
Francisco Villaescusa-Navarro, Center for Computational Astrophysics
Benjamin Wandelt, Institut Lagrange de Paris / Center for Computational Astrophysics
Risa Weschler, Stanford University
Ann Zabludoff, University of Arizona

CHE - Chemistry

Pratyush Tiwary, University of Maryland (Co-Organizer)
Sijia Dong, Northeastern University
Rafael Gomez-Bombarelli, MIT
Johannes Wachmann, University at Buffalo, The State University of New York
Heng Ji, University of Illinois, Urbana-Champaign
Philip Romero, University of Wisconsin, Madison
Grant Rotskoff, Stanford University
Brett Savoie, University of Notre Dame
Suri Vaikuntanathan, University of Chicago
Greg Voth, University of Chicago
Olaf Wiest, University of Notre Dame
Shuwen Yue, Cornell University
Huimin Zhao, University of Illinois, Urbana-Champaign

DMR - Materials Research

Andrew Ferguson, University of Chicago (Co-Organizer)
Camille Bilodeau, University of Virginia
Keith Brown, Boston University
Rafa Gomez-Bombarelli, MIT DMSE
Rebecca Lindsey, University of Michigan
Yongmin Liu, Northeastern University
Shyue Ping Ong, University of California, San Diego
Chad Risko, University of Kentucky
Stephen Whitelam, Lawrence Berkeley National Laboratory
Suriyanarayanan Vaikuntanathan, University of Chicago
Chrisy Xiyu Du, University of Hawai'i at Mānoa
Yaroslava Yingling, North Carolina State University

DMS - Mathematical Sciences

Lars Ruthotto, Emory University (Co-Chair)
Soledad Villar, Johns Hopkins University (Co-Chair)
Jeremy Avigad, Carnegie Mellon University
Nicolas Garcia Trillos, University of Wisconsin, Madison
Robert Ghrist, University of Pennsylvania
Sergei Gukov, Caltech
Boris Hanin, Princeton University
Ann Lee, Carnegie Mellon University
Chris Rackauckas, JuliaHub, Pumas-AI, MIT
Philippe Rigollet, MIT
Dima Shlyakhtenko, UCLA / IPAM
Rene Vidal, University of Pennsylvania
Melanie Weber, Harvard University
Zhuoran Yang, Yale University
Bin Yu, University of California, Berkeley

PHY - Physics

Jesse Thaler, MIT (Co-Organizer)
E. Paulo Alves, UCLA
Cristiano Fanelli, William & Mary
Murray Holland, JILA
Hsin-Yuan (Robert) Huang, Caltech
Shih-Chieh Hsu, University of Washington
Michelle Kuchera, Davidson College
Vuk Mandic, University of Minnesota
Pankaj Mehta, Boston University
Jennifer Ngadiuba, Fermi National Accelerator Laboratory
David Shih, Rutgers University
Gary Shiu, University of Wisconsin, Madison
Eva Silverstein, Stanford University
Hidenori Tanaka, Harvard