Gina Vasey

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Education

Current Sep 2020	PhD Candidate, **Michigan State University** Computational Mathematics, Science and Enginerring (CMSE) Advisors: Dr. Andrew Christlieb and Dr. Brian O'Shea
Dec 2019	Bachelor of Science, **The University of Michigan** Majors: Physics and Computer Science

Scholarships and Honors

Fall 2024	Dissertation Completion Fellowship **Michigan State University**
2022-2023 Academic Year	MIPSE Fellow **University of Michigan** Michigan Institute for Plasma Science and Engineering
2020-2021 Academic Year	Engineering Distinguished Scholar **Michigan State University**, College of Engineering
2018-2019	James B. Angell Scholar **The University of Michigan**, College of LSA
Spring 2016-Fall 2018 and Fall 2019	University Honors **The University of Michigan**, College of LSA

Publications

Dec 2023	"*Influence of initial conditions on data-driven model identification and information entropy for ideal mhd problems*" **Gina Vasey**, Daniel Messenger, David Bortz, Andrew Christlieb, Brian O'Shea, https://arxiv.org/abs/2312.05339, Under review for Journal of Computational Physics
Nov 2023	"*Developing and applying quantifiable metrics for diagnostic and experiment design on Z (SAND-2023-13526)*" William Lewis, Patrick Knapp, Kristian Beckwith, Evstati Evstativ, Jeffrey Fein, Christopher Jennings, Roshan Joseph, Brandon Lkein, Kathryn Maupin, Taisuke Nagayama, Ravi Patel, Marc-Andre Schaeuble, **Gina Vasey**, David Ampleford, https://www-osti-gov.proxy2.cl.msu.edu/biblio/2335899, Technical Report
Jul - Oct 2014	"*High throughput production for ultrasonic therapy using silicon-based microfluidic system.*" Mario L. Fabiilli; Justin Silpe; Collin Rush; David Lemmerhirt; Edward Tang; **Gina Vasey**; Oliver D. Kripfgans, 2014 IEEE International Ultrasonics Symposium Proceedings (pp 1770-1773)

Conferences

AUGUST 2024	"*Influence of Initial Conditions on Data-Driven Model Identification for Ideal MHD Test Problems*" **Gina Vasey**, Daniel Messenger, David Bortz, Andrew Christlieb, Brian O'Shea, International Conference on Data Driven Plasma Science
AUGUST 2024	"*Data-Driven Recovery of Hammett-Perkins Closure from Particle Data*" **Gina Vasey**, Daniel Messenger, David Bortz, Andrew Christlieb, Brian O'Shea, Z-Fundamental Science Workshop
AUGUST 2023	"*Successes and Challenges Using a Data-Driven Model Selection Algorithm on Plasma Simulations*" **Gina Vasey**, Daniel Messenger, David Bortz, Andrew Christlieb, Brian O'Shea, Z-Fundamental Science Workshop
JULY 2023	"*Successes and Challenges Using a Data-Driven Model Selection Algorithm on Plasma Simulations*" **Gina Vasey**, Daniel Messenger, David Bortz, Andrew Christlieb, Brian O'Shea, Dense Z-Pinch Conference
MAY 2023	"*Influence of Initial Conditions on Data-Driven Model Identification for Ideal MHD Test Problems*" **Gina Vasey**, Daniel Messenger, David Bortz, Andrew Christlieb, Brian O'Shea, International Conference on Plasma Science
OCT 2022	"*Identifying Governing ODEs in Irregular Physical Domain with Diffusion (SAND2022-9174 A)*" **Gina Vasey**; Kristian Beckwith; Patrick Knapp; William Lewis; Brian O'Shea; Andrew Christlieb; Ravi Patel; Christopher Jennings, 2022 American Physical Society Division of Plasma Physics

Work Experience

JANUARY-MAY 2022 AND AUGUST-DECEMBER 2024	Graduate Teaching Assistant **Michigan State University**
MAY 2021-PRESENT	Graduate Research Intern **Sandia National Laboratories**
AUG 2020 - DEC 2021 AND MAY 2022 - AUGUST 2024	Graduate Research Assistant **Michigan State University**
MAY-AUG 2018-2020	ATR Center Intern **Wright State University** Collaboration between Wright State University and AFRL.
JAN - APR 2017 SEP - DEC 2017	Project Team Member in MULTIDISCIPLINARY DESIGN PROGRAM (MDP) *Electrical Engineering and Computer Science* **The University of Michigan**
JUL-OCT 2014	Laboratory Internship *Radiology, Biomedical Engineering* **The University of Michigan**