John Darges

CONTACT INFORMATION	North Carolina State University Department of Mathematics Language & Computer Labs 202 Raleigh, NC 27607 USA	*Email:* jedarges@ncsu.edu *GitHub:* github.com/jedarges *Website:* jedarges.github.io

CITIZENSHIP   US Citizen

INTERESTS   Uncertainty quantification, sensitivity analysis, inverse problems, Bayesian inference, surrogate methods

EDUCATION

North Carolina State University, Raleigh, NC, USA

Ph.D., Mathematics, Expected 2023
> *Co-advisors: Alen Alexanderian and Pierre Gremaud*

M.S., Mathematics 2020

University of North Carolina, Chapel Hill, NC, USA

B.S., Mathematics, 2017

B.A., Chemistry, 2017

TEACHING

Department of Mathematics, North Carolina State University, Raleigh, NC, USA

Graduate Instructor: MA 511 (Advanced Calculus I)	**Fall 2020**
Graduate Instructor: MA 241 (Calculus II)	**Summer 2020**
Teaching Assistant: MA 131 (Calculus for Life and Management Sciences A)	**Spring 2020**
Teaching Assistant: MA 241 (Calculus II)	**Fall 2019**

Department of Chemistry, University of North Carolina, Chapel Hill, NC, USA

Teaching Assistant: CHEM 101L (Introductory Chemistry Lab I)	**May 2016 to June 2016**

EMPLOYMENT

Department of Mathematics, North Carolina State University, Raleigh, NC, USA

Research Assistant	**Spring 2021 to Present**
Grader: MA 231H (Calculus for Life and Management Sciences B)	**Spring 2019**
Grader: MA 351 (Discrete Mathematics)	**Fall 2018**

Avioq, Inc., Durham, NC, USA

Contractor	**February 2018 to August 2018**

Department of Chemistry, University of North Carolina, Chapel Hill, NC, USA

Undergraduate Researcher	**August 2014 to May 2016**
Lab Technician	**August 2013 to May 2014**

PUBLICATIONS   *Extreme learning machines for variance-based global sensitivity analysis*. John Darges, Alen Alexanderian, Pierre Gremaud. Submitted 2022.

PRESENTATIONS	**Poster Talk**
	Extreme learning machines for variance-based global sensitivity analysis. RAI Amsterdam Convention Center, Amsterdam, Netherlands. SIAM Conference on Computational Science and Engineering. March 2023.
	Invited Talk
	Extreme learning machines for variance-based global sensitivity analysis. Walter E. Washington Convention Center, Washington, D.C., USA. Joint Statistical Meetings. August 2022.
	Poster Talk
	Extreme learning machines for variance-based global sensitivity analysis. Florida State University, Tallahassee, FL, USA. Conference on Sensitivity Analysis of Model Output (SAMO). March 2022.
SERVICE ACTIVITIES	**Association of Women in Mathematics** **2022**
	Volunteered at educational workshops to encourage and foster young women's interest in mathematical sciences
	Math Doesn't Bug Me **2019**
	Volunteered at mathematics outreach events by helping participants solve mathematics-related games and puzzles and explaining the mathematics involved
	Alpha Chi Sigma **2015 to 2017**
	Volunteered at science outreach events by demonstrating and helping participants conduct chemistry experiments. Provided tutoring services to primary school students
	Centro Para Familias Hispanas **2012 to 2013**
	Tutored students in elementary school level mathematics, science, and language arts
MEMBERSHIPS	Society for Industrial and Applied Mathematics (SIAM), American Mathematical Society (AMS)
SKILLS	Python, MATLAB, LaTeX
LANGUAGES	English, Spanish