

CONNOR W. MAGOON

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EDUCATION

The University of North Carolina at Chapel Hill (UNC)

PhD Applied Mathematics 2023-

BS Physics and Applied Mathematics 2019-2023

PUBLICATIONS

Differentiation Through Black-Box Quadratic Programming Solvers Accepted 2025
Connor W. Magoon*, Fengyu Yang*, Noam Aigerman, Shahar Z. Kovalsky
[NeurIPS](#)

The way bubbles gallop Accepted 2025
Jian H. Guan, Saiful. I. Tamim, Connor W. Magoon, Howard A. Stone, and Pedro J. Sáenz
[Physical Review Fluids](#)

Gallopig Bubbles 2025
Jian H. Guan*, Saiful. I. Tamim*, Connor W. Magoon*, Howard A. Stone, and Pedro J. Sáenz
[Nature Communications](#)

Traveling Faraday waves 2023
Jian H. Guan, Connor W. Magoon, Matthew Durey, Roberto Camassa, and Pedro J. Sáenz
[Physical Review Fluids](#)

*Equal contribution

HONORS

Gallery of Fluid Motion Award, American Physical Society / Division of Fluid Dynamics 2024
Jian H. Guan, Saiful. I. Tamim, Connor W. Magoon, Howard A. Stone, and Pedro J. Sáenz
[“Gallopig Bubbles”](#)

Doctoral Merit Fellowship, UNC 2023-2024

Archibald Henderson Mathematics Medal, UNC 2023

Milton van Dyke Award, American Physical Society / Division of Fluid Dynamics 2022
Jian H. Guan, Connor W. Magoon, Matthew Durey, Roberto Camassa, and Pedro J. Sáenz
[“Run, Faraday, Run”](#)

TALKS

Collective Dynamics of Galloping Bubbles	2024
<u>Connor W. Magoon</u> , Xinyun Liu, Jian H. Guan, Saiful I. Tamim, and Pedro J. Sáenz	
<i>APS Division of Fluid Dynamics Meeting</i>	
Direct Numerical Simulations of Vibrating Bubbles Self-Propelling Along Solid Boundaries	2023
<u>Connor W. Magoon</u> , Jian H. Guan, Saiful I. Tamim, and Pedro J. Sáenz	
<i>APS Division of Fluid Dynamics Meeting</i>	

TEACHING

Instructor

First Course in Differential Equations Laboratory (MATH 383L)	Fall 2025
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TA

Calculus of Functions of Several Variables (MATH 233)	Fall 2024, 2025
General Physics II: For Students of the Life Sciences (PHYS 115)	Summer 2021
Introductory Calculus-based Electromagnetism and Quanta (PHYS 119)	Fall 2020

Grader

Introduction to Fluid Mechanics (MATH 563)	Spring 2025
Elementary Differential Equations (MATH 524)	Spring 2024