

CONNOR W. MAGOON

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<https://cwmagoon.github.io>

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 <u>Connor W. Magoon</u> [*] , Fengyu Yang [*] , Noam Aigerman, Shahar Z. Kovalsky NeurIPS	Accepted 2025
The way bubbles gallop Jian H. Guan, Saiful. I. Tamim, <u>Connor W. Magoon</u> , Howard A. Stone, and Pedro J. Sáenz Physical Review Fluids	Accepted 2025
Galloping Bubbles Jian H. Guan [*] , Saiful. I. Tamim [*] , <u>Connor W. Magoon</u> [*] , Howard A. Stone, and Pedro J. Sáenz Nature Communications	2025
Traveling Faraday waves Jian H. Guan, <u>Connor W. Magoon</u> , Matthew Durey, Roberto Camassa, and Pedro J. Sáenz Physical Review Fluids	2023

^{*}Equal contribution

AWARDS

Travel Grants

NeurIPS Scholar Award	2025
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Conference Awards

<i>Gallery of Fluid Motion Award</i> , American Physical Society / Division of Fluid Dynamics Jian H. Guan, Saiful. I. Tamim, <u>Connor W. Magoon</u> , Howard A. Stone, and Pedro J. Sáenz “Galloping Bubbles”	2024
<i>Milton van Dyke Award</i> , American Physical Society / Division of Fluid Dynamics Jian H. Guan, <u>Connor W. Magoon</u> , Matthew Durey, Roberto Camassa, and Pedro J. Sáenz “Run, Faraday, Run”	2022

Honors

Doctoral Merit Fellowship, UNC	2023-2024
Archibald Henderson Mathematics Medal, UNC	2023

TALKS

- Collective Dynamics of Galloping Bubbles 2024
[Connor W. Magoon](#), Xinyun Liu, Jian H. Guan, Saiful I. Tamim, and Pedro J. Sáenz
[APS Division of Fluid Dynamics Meeting](#)
- Direct Numerical Simulations of Vibrating Bubbles Self-Propelling Along Solid Boundaries 2023
[Connor W. Magoon](#), Jian H. Guan, Saiful I. Tamim, and Pedro J. Sáenz
[APS Division of Fluid Dynamics Meeting](#)

TEACHING

Instructor

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

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