

# CONNOR W. MAGOON

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<https://cwmagoon.github.io>

## EDUCATION

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The University of North Carolina at Chapel Hill (UNC)

PhD Applied Mathematics 2023-

BS Physics and Applied Mathematics 2019-2023

## HONORS

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*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  
[“Galloping 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”](#)

## PUBLICATIONS

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

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](#)

Galloping 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

## TALKS

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Collective Dynamics of Galloping Bubbles	2024
<u>Connor W. Magoon</u> , Xinyun Liu, Jian H. Guan, Saiful I. Tamim, and Pedro J. Sáenz	
<a href="#"><i>APS Division of Fluid Dynamics Meeting</i></a>	
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	
<a href="#"><i>APS Division of Fluid Dynamics Meeting</i></a>	

## TEACHING

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### 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