Tim Van Hoose

CONTACT INFORMATION	Department of Mathematics University of North Carolina at Chapel Hill 120 E. Cameron Avenue Chapel Hill, North Carolina 27514 USA	(573)-578-3656 `tvh@unc.edu`

RESEARCH INTERESTS

Harmonic analysis, nonlinear dispersive and stochastic partial differential equations - with specific emphasis on applications in mathematical physics.

EDUCATION

Department of Mathematics, University of North Carolina at Chapel Hill

Ph.D Student, Mathematics (Expected May 2027)

- Advisor: Dr. Jeremy Marzuola

Department of Mathematics and Statistics, Missouri University of Science and Technology

M.S in Mathematics, May 2022

- Advisor: Dr. Jason Murphy
- Thesis: *Several Problems in Nonlinear Schrödinger Equations*

B.S. in Mathematics, December 2020

- Highest honors in mathematics

PUBLICATIONS

L. Campos, J. Murphy, T. Van Hoose, *Averaging for the dispersion-managed NLS.* Preprint `https://arxiv.org/abs/2205.11009`
J. Murphy, T. Van Hoose, *Well-posedness and blowup for the dispersion-managed nonlinear Schrödinger equation.* To appear in Proc. Amer. Math. Soc.
J. Murphy, T. Van Hoose, *Modified scattering for a dispersion-managed nonlinear Schrödinger equation,* Nonlinear Differ. Eq. Appl. **29**, 1 (2022).

INVITED TALKS

Invited Seminar and Conference Talks

- 2022, GMA Visions Seminar, University of North Carolina at Chapel Hill

TEACHING EXPERIENCE

Teaching at Missouri S&T	
Semester	Course Name
Fall 2021	Calculus III for Engineers
Spring 2022	Calculus III for Engineers

HONORS AND AWARDS

2022–2023	Graduate Research Assistant (supported by Dr. Jason Metcalfe) University of North Carolina at Chapel Hill
2021–2022	Graduate Teaching Assistant Missouri University of Science and Technology
2020	Roman Dwilewicz Excellence in Mathematics Award Missouri University of Science and Technology

CONFERENCES ATTENDED

- Rivière-Fabes Symposium, University of Minnesota - Twin Cities, April 2021 [virtual]

- Workshop on Generic Behavior of Dispersive Solutions and Wave Turbulence, ICERM, October 2021

GRADUATE COURSEWORK	❏ Real Analysis	❏ Differential Geometry
	❏ Complex Variables	❏ Topology
	❏ Linear Algebra	❏ Functional Analysis
	❏ Partial Differential Equations	❏ Modern Algebra
	❏ Harmonic Analysis (3 semesters)	❏ Vector and Tensor Analysis
		❏ Quantum Mechanics