

# CURRICULUM VITAE

August 22, 2021

## Personal Information

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**Name:** HANH VAN NGUYEN      **Gender:** Male  
**Address:** 1103 14th St Apt 8A, Tuscaloosa, AL 35401, USA  
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## Education

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**2010-2016:** Doctoral Student, Department of Mathematics, University of Missouri–Columbia, USA. (Ph.D. awarded in 2016.)  
**Dissertation title:** Maximal Fourier Integrals and Multilinear Multiplier Operators.  
**Advisor:** Dr. Loukas Grafakos.

**2004-2006:** Master of Science in Mathematics, College of Education, Hue University, Vietnam. (MS awarded in 2006.)  
**Thesis title:** The Gauss map of spacelike surfaces on Lorentz-Minkowski spaces.  
**Advisor:** Dr. Doan The Hieu.

**1999-2003:** Bachelor of Science in Mathematics, College of Education, Hue University, Vietnam. (BS awarded in 2003.)

## Faculty Positions

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**2021-2022:** Instructor, Department of Mathematics, University of Alabama, Tuscaloosa, USA.

**2020-2021** Instructor, Department of Mathematics, Hue University of Education, Hue, Vietnam.

**2016-2019:** Postdoctoral Researcher, Department of Mathematics, University of Alabama, Tuscaloosa, USA.  
**Postdoctoral mentor:** Dr. David Cruz-Uribe.

## Programming Experience

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**2016-2021** Advanced Python Proficiency; Using Python to teach Statistics and Machine Learning courses with key libraries: Pandas, Numpy, Statsmodels, Scipy, Scikit-Learn, Matplotlib, Seaborn.

**2013-2016** Deploying AMS WebWork on server; transferring exercises format from WebAssign to WebWork; administering courses on WebWork and designing exercises on this platform.

## Teaching Experience

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**2020-2021** Instructor, Department of Mathematics, Hue University of Education, Vietnam.

**2016-2019** Postdoctoral Researcher, Department of Mathematics, University of Alabama, Tuscaloosa, USA.

**2013-2016** Graduate Teaching Assistant, Department of Mathematics, University of Missouri–Columbia, USA.

**2005-2010** Instructor, Department of Mathematics, Hue College of Education, Vietnam.

## Grants and Awards

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**May 2015** Mathematics Distinguished Teaching Awards, University of Missouri, Columbia.

**June 2014** Spring 2014 TA Choice Award, MSA and Department of Student Services, University of Missouri, Columbia.

**April 2011** Ph.D. Qualifying Exam Awards (Algebra and Analysis).

**May 2002** Silver medal in Analysis and gold medal in Algebra; Vietnamese Mathematical Olympiad for college students; VMS.

## Research Interests

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**Harmonic Analysis:** Multilinear singular integral operators, multilinear Fourier multipliers on Lebesgue or Hardy spaces, weighted or variable Hardy spaces.

**Frame Theory:** Phase retrieval, phaseless reconstruction, positive operator-valued measures, applications to quantum information.

## Publications and Preprints

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- [15] DAVID CRUZ-URIBE AND HANH VAN NGUYEN, *Multilinear multipliers and singular integrals with smooth kernels on Hardy spaces*, Transactions of the American Mathematical Society, **374** (2021), 3801–3825.
- [14] LOUKAS GRAFAKOS, SHOHEI NAKAMURA, HANH VAN NGUYEN, YOSHIHIRO SAWANO, *Multiplier conditions for boundedness into Hardy spaces*, Annales de l'Institut Fourier, Grenoble, In press
- [13] DAVID CRUZ-URIBE, KABE MOEN, HANH VAN NGUYEN, *The boundedness of multilinear fractional singular integral operators on weighted and variable Hardy spaces*, Houston Journal of Mathematics, **45** (2019), no. 3, 853–871.
- [12] LOUKAS GRAFAKOS AND HANH VAN NGUYEN, *The Hörmander multiplier theorem III: The bilinear case and interpolation*, Monatshefte für Mathematik, **190** (2019), no. 4, 735–753.
- [11] LOUKAS GRAFAKOS, SHOHEI NAKAMURA, HANH VAN NGUYEN, YOSHIHIRO SAWANO, *Conditions for boundedness into Hardy spaces*, Mathematische Nachrichten, **292** (2019), no. 11, 2383–2410.
- [10] DAVID CRUZ-URIBE, KABE MOEN, HANH VAN NGUYEN, *The boundedness of multilinear Calderón-Zygmund operators on weighted and variable Hardy spaces*, Publicacions Matemàtiques, **63** (2019), no. 2, 679–713.
- [9] LOUKAS GRAFAKOS, DANQING HE, HANH VAN NGUYEN, AND LIXIN YAN, *Multilinear multiplier theorems and applications*, Journal of Fourier Analysis and Applications, **25** (2019), no. 3, 959–994.
- [8] L. GRAFAKOS, D. HE, AND P. HONZÍK, H. V. NGUYEN, *The Hörmander multiplier theorem, I: The linear case revisited*, Illinois Journal of Mathematics, **61** (2017), no. 1–2, 25–35.
- [7] TRAVIS BEMROSE, PETER G. CASAZZA, DESAI CHENG, JOHN HAAS, AND HANH VAN NGUYEN, *Computing the Distance Between Frames and Between Subspaces of a Hilbert Space*, Springer International Publishing; (2017), 81–99.
- [6] LOUKAS GRAFAKOS, AKIHIKO MIYACHI, HANH VAN NGUYEN, AND NAOHITO TOMITA, *Multilinear Fourier multipliers with minimal Sobolev regularity, II*, J. Math. Soc. Japan **69** (2017), no. 2, 529–562.
- [5] LOUKAS GRAFAKOS AND HANH VAN NGUYEN, *Multilinear Fourier multipliers with minimal Sobolev regularity, I*, Colloq. Math. **144** (2016), no. 1, 1–30.
- [4] SARA BOTELHO-ANDRADE, PETER CASAZZA, HANH VAN NGUYEN, JANET TREMAIN, *Phase retrieval verses phase-less reconstruction*, J. Math. Anal. Appl. **436** (2016), no. 1, 131–137.
- [3] HANH VAN NGUYEN, *A maximal Fourier integral operator and an application*, J. Pseudo-Differ. Oper. Appl. **4** (2013), no. 4, 443–456.
- [2] DOAN THE HIEU AND NGUYEN VAN HANH, *Analytic extension of a maximal surface in  $\mathbb{L}^3$  along its boundary*, Acta Math., Univ. Comenianae **78** (2009), no. 1, 29–38.
- [1] DOAN THE HIEU, NGUYEN VAN HANH, *Some 3-calibrations have faces containing a special Lagrangian's*, East-West J. Math. **4** (2002), no. 2, 149–155

## Review Activities

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**Reviewer:** Journal of Geometric Analysis, Journal of Fourier Analysis and Applications, Journal of the Mathematical Society of Japan, Forum Mathematicum, Mathematical Inequalities & Applications, Potential Analysis, International Mathematics Research Notices.