
Research interest

Statistics in Health Science

- Disease Mapping
- Survival Analysis
- Spatial-Temporal Analysis/Survival Analysis
- Study Design
- GWAS
- Multi-Omics with or without Longitudinal Analysis

AI in Health Science

- Applications of Machine Learning/Neural Network to Health Science

Employment

Syracuse, NY	Syracuse University	Fall 2016 – Spring 2018
• Postdoctoral fellow in Pure Mathematics		

Education

Jackson, MS	University of Mississippi Medical Center	Fall 2018 –
• Research student in Biostatistics and Data Science		
Columbia, MO	University of Missouri Columbia	Fall 2011 – 2016
• Ph.D in Mathematics		

Teaching Experience

Syracuse	Syracuse University	Fall 2016-Spring 2018
• Calculus I, II, III		
• Introduction to Partial Differential Equations		
• Putnam coach for Mathematics team (my student got ranked 59th for all students across US and Canada)		
Teaching Assistant	University of Missouri	Fall 2011 – Summer 2016
• Courses: Calculus I, II, III		

Awards

Jackson, MS	University of Mississippi Medical Center	Spring 2019
• Associated Student Body award in Education category		
Columbia, MO	University of Missouri Columbia	Fall 2011-Summer 2016
• Invited to Hausdorff Research Institute for Mathematics, Bonn, Germany, for one month with full support – May 2014		
• Highest scores for Ph.D Analysis Qualifying Exams in Mathematics – Spring 2011		

Professional Service

Jackson, MS	University of Mississippi Medical Center	Spring 2019
• President of the UMMC chapter of American Statistics Association		
• Chair of Data Science Officer of School of Population Health in the UMMC Associated Student Body		

Publications

Biostatistics and Health Science

1. Effect of disparities on continuity and healthcare utilization among patients with obesity-associated chronic conditions (OCC) and the subgroup with diabetes (OCC+T2D) (first author, in progress)
2. Disparities of geography, economy, education, and uninsured rate on COVID19 cases and deaths in Mississippi (first author, submitted)
3. Continuity of Care for Patients with Obesity-Associated Chronic Conditions: Protocol for a Multisite Retrospective Cohort Study, JMIR Res Protoc 2020;9(9):e20788

Mathematics

1. Sharp affine Trudinger-Moser inequalities: A new argument, Canadian Mathematical Bulletin, 1-14, 2020
2. Quantum divergences with p-power means, Linear Algebra and its Applications 609, 289-307, 2020
3. Hardy Inequalities and Caffarelli-Kohn-Nirenberg inequalities with radial derivative, with Nguyen Tuan Duy, Weijia Yin, 2020 Journal of Mathematical Inequalities, to appear
4. Sharp Trudinger-Moser inequalities with homogeneous weights, with Duy, Nguyen Tuan; Nghia, Le Trung; Electron J. Differential Equations 2019, N. 205
5. Carleson measure estimates and the Dirichlet problem for degenerate elliptic equations, with Steve Hofmann and Andrew Morris, ANALYSIS & PDE, Volume 12, No. 8, 2019
6. BMO solvability and absolute continuity of harmonic measure, with Steve Hofmann, The Journal of Geometric Analysis, Volume 28, Issue 4, pp 3278–3299
7. Uniform Rectifiability and harmonic measure IV: Ahlfors regularity plus Poisson kernels in L_p implies uniform rectifiability, with Steve Hofmann, Kaj Nystrom, Jose Maria Martell, Analysis and PDEs. Vol 10. No. 3 2017
8. Nonlinear versions of Stampacchia and Lax-Milgram theorems and applications, with Duong M. Duc and Nguyen H. Loc, Nonlinear Anal. 68 (2008), no. 4, 925931

Google Scholar Citations - 11/2020

Citations	65
h-index	3
i10-index	2

Languages and Technologies

-
- SQL; SAS; R; Python; STATA; Julia (Beginning); Linux; Windows; MacOS; HPC
 - Bioconductor: DESeq2, limma, EdgeR, rTANDEM