Yunfeng Zhang - Curriculum Vitae

CONTACT INFORMATION	School of Mathematical Sciences Peking University No.5 Yiheyuan Road, Haidian District Beijing, China 100871	phone: (+86)13083350375 email: yunfengzhang108@gmail.com homepage: yunfengzhang108.github.io

RESEARCH INTERESTS

Harmonic analysis especially on Lie groups, and its connections to analytic number theory and dispersive equations; concentration of eigenfunctions of the Laplace–Beltrami operator

ACADEMIC APPOINTMENTS

TAL Assistant Professor, Peking University	2021 - now
Assistant Research Professor, University of Connecticut	2018 - 2021

EDUCATION

Ph.D. in Mathematics, UCLA Advisors: Rowan Killip and Monica Visan	2012 - 2018
B.S. in Mathematics, Tsinghua University	2008 - 2012

HONORS AND AWARDS

UCLA Mathematics Graduate Research Presentation Prize	2018
Tsinghua University Outstanding Graduate Award	2012
Fellowship in the Talents Program of Tsinghua University	2009 - 2012

GRANTS

Co-PI, National Key R&D Program of China (PI: Hanlong Fang) Title: Geometry and Analysis on Homogeneous Spaces Total value: 3,000,000 CNY	2022 - now
PI, Fundamental Research Funds for the Central Universities, Peking University Title: Analysis on Lie Groups Total value: 200,000 CNY	2021 - 2023

PREPRINTS

7. Bounds of restriction of characters to submanifolds
   Preprint, submitted. arXiv:2402.03178

6. Harmonic analysis on the fourfold cover of the space of ordered triangles
   (with Hanlong Fang and Xiaocheng Li) Preprint, submitted. arXiv:2301.00529

JOURNAL PUBLICATIONS

5. On Fourier restriction type problems on compact Lie groups
   Indiana University Mathematics Journal 72 (2023), No. 6, 2631-2699, 69 pp. arXiv:2005.11451

4. Schrödinger equations on compact globally symmetric spaces
   The Journal of Geometric Analysis 31 (2021), No. 11, 10778-10819, 42 pp. arXiv:2005.00429

3. Strichartz estimates for the Schrödinger equation on products of odd-dimensional spheres
   Nonlinear Analysis 199 (2020), 112052, 21 pp. arXiv:2301.02823

2. Strichartz estimates for the Schrödinger flow on compact Lie groups
   Analysis & PDE 13 (2020), No. 4, 1173-1219, 47 pp. arXiv:1703.07548

CONFERENCE PAPERS

1. Analysis on compact symmetric spaces: eigenfunctions and nonlinear Schrödinger equations
   In: Ghent Methusalem Colloquium 2021, Trends in Mathematics (2024), Birkhäuser.

INVITED TALKS	Special Session on Harmonic Analysis and Hamiltonian PDEs Joint Meeting of the NZMS, AustMS and AMS, University of Auckland	December 2024
	"Bounds of restriction of characters to submanifolds" Analysis Seminar, University of Wisconsin–Madison	May 2024
	"Bounds of restriction of characters to submanifolds" Seminar, Beijing Institute of Technology	January 2024
	"Harmonic analysis on compact symmetric spaces" Global Young Scholars Forum, Beijing Normal University	December 2023
	"L^p norms of Laplacian eigenfunctions on compact symmetric spaces" Young Scholars Forum, ShanghaiTech University	December 2023
	"L^p norms of Laplacian eigenfunctions on compact symmetric spaces" Young Mathematician Forum, Shanghai Jiao Tong University	December 2023
	"Harmonic analysis on compact symmetric spaces" Vision Forum for International Young Scholars, Beihang University	December 2023
	"L^p norms of Laplacian eigenfunctions on compact symmetric spaces" Global Forum for Young Mathematicians, SUSTech	November 2023
	"L^p norms of Laplacian eigenfunctions on compact Lie groups" Teli Forum for International Young Scholars, Beijing Institute of Technology	November 2023
	"Discrete Fourier restriction and the Kloosterman circle method" Colloquium, Huaibei Normal University	September 2023
	"Fourier restriction type problems on compact Lie groups " Seminar, Beijing Institute of Technology	September 2023
	"Nonlinear Schrödinger equation on compact symmetric spaces" Ghent Methusalem Colloquium, Ghent University	November 2021
	"Fourier restriction bounds on compact symmetric spaces" Conference on Harmonic Analysis and Symmetric Spaces	October 2021
	"Strichartz estimate for the Schrödinger equation on compact globally symmetric spaces" Oberseminar Analysis, Bielefeld University	April 2021
	"Schrödinger equations on compact globally symmetric spaces" Weekly Seminar on Geometric and Functional Inequalities and Applications	February 2021
	"Size of Laplacian eigenfunctions on compact symmetric spaces" AMS Sectional Meeting on Geometric Inequalities and Nonlinear PDEs	September 2020
	"Strichartz estimates for the Schrödinger equation on compact symmetric spaces" AMS Sectional Meeting on Analysis on Homogeneous Spaces	March 2020
SERVICE	Referee for research journals including *Journal of Functional Analysis*, *Selecta Mathematica*, and *Transactions of the American Mathematical Society*	
	Co-organizer of the Analysis and Probability Seminar at the University of Connecticut, Fall 2020 and Spring 2021	
	Reviewer for Mathematical Reviews	
TEACHING EXPERIENCE	As Instructor –	
	Linear Algebra B ("B" stands for "for the Physical Sciences"), Peking University	Fall 2023
	Linear Algebra B, Peking University	Fall 2022
	Advanced Mathematics B (i.e. Calculus for the Physical Sciences), Peking University	Fall 2021

Partial Differential Equations (two classes), University of Connecticut	Spring 2021
Partial Differential Equations (two classes), University of Connecticut	Fall 2020
Axiomatic Geometry (two classes), University of Connecticut	Spring 2020
Introduction to Complex Variables (two classes), University of Connecticut	Fall 2019
Partial Differential Equations (two classes), University of Connecticut	Spring 2019
Honors Calculus II, University of Connecticut	Fall 2018
Honors Multivariable Calculus, University of Connecticut	Fall 2018
Calculus for Life Sciences Students II, UCLA	Summer 2017

As Teaching Assistant –

Probability Theory II, UCLA	Spring 2018, Spring 2017, Winter 2017, Winter 2016
Algebra for Applications, UCLA	Winter 2018
Analysis I, UCLA	Fall 2017, Winter 2016, Fall 2015
Probability Theory I, UCLA	Winter 2017, Winter 2015
Differential and Integral Calculus, UCLA	Fall 2016
Linear & Nonlinear Systems of Differential Equations, UCLA	Fall 2015, Spring 2015, Winter 2014
Mathematical Game Theory, UCLA	Summer 2015
Partial Differential Equations, UCLA	Spring 2015
Discrete Structures, UCLA	Winter 2015
Precalculus, UCLA	Fall 2014, Fall 2012
Calculus for Life Sciences Students I, UCLA	Fall 2014
Linear Algebra I, UCLA	Summer 2014
Differential Geometry II, UCLA	Spring 2014
Ordinary Differential Equations, UCLA	Spring 2014, Winter 2014
Integration and Infinite Series, UCLA	Fall 2013
Complex Analysis for Applications, UCLA	Spring 2013
Differential Equations, UCLA	Winter 2013

Reference

Rowan Killip	killip@math.ucla.edu
Simon Marshall	marshall@math.wisc.edu
Ambar Sengupta	ambar.sengupta@uconn.edu
Terence Tao	tao@math.ucla.edu
Monica Visan	visan@math.ucla.edu