# Xiaoran Zhang

Tel: +86 19817865122 Email: zhangxiaoran@bimsa.cn

#### Current Position

#### Beijing Institute of Mathematical Sciences and Applications

Beijing, P.R.China

Postdoctoral Fellow

- Mentor: Lars Andersson

July 2024-

#### EDUCATION

#### Zhejiang University

Hangzhou, P.R.China

Ph.D. in Pure Mathematics

September 2019-June 2024

- Advisor: Chengbo Wang

- Address: HaiNaYuan Bldg. 2, School of Mathematical Sciences

#### Central South University

Bachelor Degree of Science

Changsha, P.R.China September 2015–June 2019

#### Research Interests

- Nonlinear dispersive equations
- \* Dispersive estimates
- \* Critical exponents and Further problems
- Analysis
- \* Harmonic analysis on hyperbolic spaces
- Mathematical Relativity

## Publications and Preprints

- [1] C. Wang and X. Zhang, "An alternative proof of Tataru's dispersive estimates", Forum Math., vol. 36, no. 3, pp. 743–764, 2024, ISSN: 0933-7741.
- [2] C. Wang and X. Zhang, Generalized strauss conjecture for semilinear wave equations on  $\mathbb{R}^3$ , 2024. arXiv: 2405.12761 [math.AP].
- [3] C. Wang and X. Zhang, Wave equations with logarithmic nonlinearity on hyperbolic spaces. 2023. arXiv: 2304.01595 [math.AP].
- [4] **X. Zhang**, The critical conjecture of wave equations with logarithmic nonlinearity on  $\mathbb{H}^2$ , 2023. arXiv: 2309.10384 [math.AP].

#### Talks

• Wave Equations on Hyperbolic Spaces I. 2022 International Conference on Geometric Analysis and Hyperbolic Equations. Guangxi Center for Mathematical Research (Online), December 10 - 17, 2022.

- Wave Equations on Hyperbolic Spaces II. 2022 Symposium on Partial Differential Equations in Yangtze River Delta and Doctoral Forum (Talks in Sessions: Hyperbolic Equations) (Chinese). College of Sciences, Shanghai University, March 31 April 2, 2023.
- Wave Equations on Hyperbolic Spaces III. Workshop on Wave Equations. School of Mathematical Sciences, Zhejiang University, June 29 July 1, 2023.

# Conferences

- Mathematical Relativity Seminar in Sun Yat-sen University (Chinese). School of Mathematics, Sun Yat-sen University, China, May 19 22, 2023.
- International Conference on Nonlinear Waves and Mathematical General Relativity. Department of Mathematical Sciences, Tsinghua University, China, July 10 14, 2023.
- Workshop on Nonlinear Dispersive Equations. School of Mathematical Sciences, Fudan University, China, August 26 27, 2023.
- Workshop on Nonlinear Hyperbolic PDEs. Mathematical Institute, Tohoku University, Japan, November 22 27, 2023.
- Sanya Waves. Tsinghua Sanya International Mathematics Forum, Tsinghua University and BIMSA, China, January 8 12, 2024.

## TEACHING ASSISTANTS

• Functional Analysis	Semester 1, 2019 and Semester 1, 2021
Lecturer: Chengbo Wang	
• Ordinary Differential Equations	Semester 1, 2020 and Semester 1, 2022
Lecturer: Chengbo Wang	

## AWARDS AND HONORS

• Third-class Scholarship	Central South University, 2016
• Second-class Scholarship	Central South University, 2017
• Zhenting Hou Scholarship	Central South University, 2017
• Master's National Scholarship	Zhejiang University, 2020
• Zhurui Guo Scholarship	Zhejiang University, 2023