HONGDA QIU

Department of Mathematics The Pennsylvania State University, University Park State College, PA 16801 hqiu @psu.edu

EDUCATION

B.S. in Mathematics and Applied Mathematics, Zhejiang University

Sept 2014-Jun 2018

Thesis Advisor: Chao Xu

M.S. in Applied Mathematics and Statistics, Johns Hopkins University

Sept 2019-Feb 2021

Ph.D. in Mathematics, The Pennsylvania State University

Aug 2021-Current

Thesis Advisor I: Dmitri Burago

Thesis Advisor II: Anton Petrunin (co-advising)

RESEARCHING PAPERS

A counterexample for the curvature bounded sphere problem in \mathbb{R}^3 , Submitted, 2025

On equivariant isometric embeddings of Riemannian manifolds with symmetries. https://arxiv.org/abs/2511.09931, Submitted, 2025

With Dmitri Burago. On the geometry of Riemannian isometric embeddings. https://arxiv.org/abs/2507.23164, Submitted, 2025

On the curvature bounded sphere problem in \mathbb{R}^3 . <u>https://arxiv.org/abs/2507.06245</u>, *Submitted 2025*

With Dmitri Burago. Dong Chen and Jinpeng Lu, On some unsolved problems of geometric origin. Preprint, 2024

TEACHING

Graduate Teaching Assistant

Feb 2022-Current

(Undergraduate Course Instructor, Department of Mathematics, the Pennsylvania State University, University Park)

Math 230 Calculus III, Spring 2022

Math 21 College Algebra I, Fall 2022

Math 35 General Views on Mathematics (non-coordinated), Fall 2023

Math 22 College Algebra II, Fall 2025

TALKS

(On plan) Equivariant isometric embeddings of Riemannian manifolds, Geometry Lunch Seminar, PSU

Spring 2026

OTHER ACADEMIC ACTIVITIES

• Co-organizing Geometry Lunch Seminar at PSU with Dmitri Burago and Anton Petrunin

Aug 2025-Current

• Co-organized and gave lectures for the qual study group for incoming graduate students in Complex Analysis

Fall 2023

AWARDS & HONORS

• Academic Scholarship (Zhejiang University)

2017

• Vollmer-Kleckner Scholarship in Science (The Pennsylvania State University)

2021