

Pengkun Huang

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Research interests

I hold a broad interest in everything happening in Algebraic Topology. Right now, I focus on homotopy theory. I also find Algebraic K-theory is very interesting.

Education

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| 2021 – Present | University of Copenhagen – Copenhagen, Denmark
Msc in mathematics (full scholarship in the second year)
Thesis Supervisor: Dr. Robert Burklund |
| 2020 – 2021 | University of Reading – Reading, UK
Bsc in mathematics (with Department Achievement Prize and Part 3 Project Prize)
Thesis supervisor: Dr. John Evans <i>GPA: 93.04/100.</i> |
| 2013 – 2017 | Nanjing University of Information Science and Technology – Nanjing, China
Bsc in mathematics (Joint double degree program with University of Reading.)
<i>GPA: 92.54/100.</i> |

Papers

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| 2022 | Algebraic K-theory from the viewpoint of infinity category
Master Project (will be done in Nov. 2022 - Jan. 2023) |
| 2022 | An Introduction to Topological K-theory towards Hopf Invariant One Problem
Master Project |
| 2021 | An Introduction to Homology Theory Towards Spectral Sequence
Bachelor Thesis |
| 2020 | A criterion for transitivity of area preserving partially hyperbolic endomorphism on torus
Undergraduate Research Project. Available at: https://arxiv.org/abs/2011.14257v1 |

2019 **On the error estimation and T-stability of the Ishikawa iteration for strongly demicontractive mappings**

Authors: Chao Wang, Xueli Li, Pengkun Huang. Undergraduate research project.
Published at: Journal of inequalities and applications, (2019)

Activities

2020 09 – 12 **Frontier Courses for Postgraduates (Guangxi Center for Mathematical Research)**

Contents: Topics in Differential Geometry, An introduction to Representation Theory

2020 08 **Summer school in differential geometry (Peking University)**

Contents: Second order elliptic partial differential equations, Complex Geometry, Riemmanian Geometry

2020 07 **Summer school on Geometry (Sichuan University)**

Contents: Linear Methods in Classical Algebraic Geometry, Low Dimensional Hyperbolic Geometry

2019 09 – 10 **Reading Project on Algebraic Geometry**

Contents: Theories of Variety and Sheaf