

KESHU ZHOU

Hefei, Anhui, China

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EDUCATION BACKGROUND

University of Science and Technology of China

Hefei, China

Undergraduate, Hua Loo-Keng Talent Program, Major in Pure Mathematics

Sep. 2019-Now

OVERALL GRADES

• Overall GPA: 3.99/4.30

• Weight Average Score: 91.74/100

• Major GPA: 4.10/4.30

• Weight Average Major Score: 93.52/100

*All grades are calculated up to now

GRADUATE MATH COURSES TAKEN

• Riemannian Geometry(93)

• Algebraic Number Theory(92)

• Commutative Algebra(100)

• Differential Equations II(88)

• Complex Analysis in Several Variables(91)

• Hodge theory and its applications(100)

• Algebraic Topology(91)

• Algebra(OG)

• Riemann Surface(95)

• Topics in Geometric Analysis(OG)

*OG:ongoing

RESEARCH PROJECT

Project Name | The Geometry of Gauge Theory

Instructed by Asso. Prof. Bin Xu, USTC

• Learn the basic theory of bundles, connections and curvature.

• Learn Yang-Mills theory and its applications to four-dimensional topology, concerning about Uhlenbeck's compactness, ADHM construction and Donaldson's diagonalizability theorem.

Project Name | Topics in Ricci flow

Instructed by Assi. Prof. Frederick Fong, HKUST

• Study Hamilton's paper: Three manifolds with positive Ricci curvature.

SEMINARS JOINED

Geometric Analysis

Organized by Asso. Prof. Xiaowei Xu, USTC

Ref: Geometric Analysis by Peter Li

Jul.2021-Nov.2021

Algebraic Topology

Organized by Asso. Prof. Bailin Song, USTC

Ref: Differential Forms in Algebraic Topology by Bott and Tu

Jul.2021-Apr.2022

Morse Theory

Organized by Asso. Prof. Xiaowei Xu, USTC

Ref: Morse Theory by Milnor

Nov.2021-Apr.2022

Algebraic Surfaces

Organized by Asso. Prof. Bin Xu, USTC

Ref: Theory of Algebraic Surfaces by Kodaira

Oct.2022-Now

Étale Cohomology

Organized by Prof. Yang Cao, USTC

Ref: Klingler's Notes on étale cohomology and Weil's conjecture

Sep.2022-Now

Lie Groups

Students seminar

Ref: Lie Groups by Duistermaat and Kolk

Sep.2022-Now

Geometric Measure Theory

Students seminar

Ref: Simon's Tsinghua Lecture Notes

Sep.2022-Now

TA EXPERIENCE

• Sep.2021-Jan.2022: Teaching Assistant of Mathematical Analysis(B1).

STANDARDIZED TESTS

• TOEFL iBT : 100 (Reading: 30, Listening: 26, Speaking: 21, Writing: 23).