ZHENGJIANG LIN

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https://acrescent.github.io/

EDUCATION

Zhejiang University   Hangzhou, Zhejiang, China
B.S. Candidate in Mathematics and Applied Mathematics   Sep. 2015 – present
- Overall GPA: 3.92/4.00 (rank 3/114)
- Third year GPA: 4.00/4.00 (93.46/100)

MIT   Massachusetts, U.S.
Visiting Student   Aug. 2017 – Dec. 2017
- Secured A in three graduate courses (Geometry of Manifolds Ⅰ, Algebraic Topology Ⅰ, Introduction to Lie Groups) and one undergraduate course (Analysis and Manifolds); audited Algebraic Geometry

The Chinese University of Hong Kong   Hong Kong, China
Visiting Student   Aug. 2018 – Sep. 2018
- Studied graduate-level algebraic topology and differential topology.

RESEARCH EXPERIENCE

Zhejiang University (Department of Mathematics)
Research Assistant to Dr. Wenshuai Jiang   May. 2018 – Jul.2018
Multiple projects in geometry analysis
- Independently proved that Sobolev inequality could not hold in a special case (although this result has been proven by a general theory)
- Finding optimal constant of Logarithmic-Sobolev inequalities.
- Considering generalization of Cheeger's compactness theorem.

ACADEMIC WORK EXPERIENCE

1. Teaching Assistant of Mathematical Analysis at Zhejiang University   Mar. 2018 – Jul. 2018
2. Teaching Assistant of Algebraic Topology at Zhejiang University   Sep. 2018 – present

RESEARCH INTEREST

1. Topology, Algebraic Geometry and Geometry Analysis
2. Representation Theory, Lie Groups and Lie Algebras
3. Analysis and Partial Differential Equations

AWARDS

1. Outstanding Winner & INFORMS Award at 2017 American Interdisciplinary Contest in Modeling(the top prize, held by SIAM and INFORMS)
2. China National Scholarship (twice, top 2% performance each year)
3. Tang Lixin Scholarship (awarded to those with outstanding leadership and academic performance)

GRADUATE-LEVEL COURSES

1. Algebraic Topology Ⅰ (Hatcher's *Algebraic Topology*)
2. Geometry of Manifolds Ⅰ (do Carmo's *Riemannian Geometry* and some parts of Yau's *Lectures on Differential Geometry*)
3. Introduction to Lie Groups (course notes)
4. Algebraic Number Theory (Jurgen Neukirch's *Algebraic Number Theory*)
5. Elliptic Partial Differential Equations of Two Order (Fanghua Lin's *Elliptic Partial Differential Equations*)
6. Seminar of Lie Algebra (Humphreys's *Introduction to Lie Algebras and Representation Theory*)

HIGH-LEVEL READINGS

1. Peter Lax's *Functional Analysis* (completed most exercises in the first twenty five chapters in sophomore year)
2. Michael Atiyah's *Introduction to Commutative Algebra*
3. John Milnor's *Morse Theory*
4. Raoul Bott's *Differential Forms in Algebraic Topology* (studied at Chinese University of Hong Kong)
5. Phillip Griffiths's *Introduction to Algebraic Curves*