

# Xiaojiang Cheng

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## *Research Interests*

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Algebraic geometry and Hodge theory  
Representation theory and automorphic forms

## *Education*

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<b>Washington University in St. Louis</b> <i>Ph.D. in Mathematics (expected May 2024); Advisor: Matt Kerr</i>	September 2018– Present <i>Saint Louis, MO, 63130</i>
<b>University of Science and Technology of China</b> <i>Advisor: Mao Sheng</i>	September 2015– June 2018 <i>Hefei, Anhui, China</i>
<b>University of Science and Technology of China</b> <i>B.A. in Mathematics</i>	September 2011–June-2015 <i>Hefei, Anhui, China</i>

## *Publications and Preprints*

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1. Hodge classes in the cohomology of local systems. preprint 2023.

## *Expository Notes*

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Automorphic Forms and the Langlands Program.  
Trace Formula.

## *Talks*

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Hodge classes in the cohomology of automorphic local systems, Algebraic Geometry Seminar at WashU - Apr. 2021  
Hodge Classes in the Cohomology of Local Systems, Chongqing University of Technology, Dec. 2023  
Hodge Classes in the Cohomology of Local Systems, Purdue University, Feb. 2024

## *Conferences Attended*

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Western Algebraic Geometry Symposium, November 4-5, 2023, St. Louis.  
Arizona Winter School: Unlikely Intersections, March 4-8 2023, Tucson.  
Algebraic Geometry and Algebraic K-Theory, May 23-25 2022, St. Louis.  
MSRI Summer Graduate School: Commutative Algebra and its Interaction with Algebraic Geometry, June 3-14, 2019, University of Notre Dame.  
Symposium on Hodge Theory, Arithmetic, and Moduli, May 13-17 2019, University of British Columbia, Canada.

*Teaching*

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Instructor:

- Calculus III, SU21

Teaching Assistant:

- Calculus III, FL23
- Calculus II, FL21
- Calculus I, FL19

Grader:

- Algebraic Geometry, SP22.
- Measure Theory and Functional Analysis I and II, FL20-SP21.
- Algebra I and II, FL20-SP21.
- Introduction to Lebesgue Integration, SP20.

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Last updated: March 2024