

Jun–Yong Park

CONTACT INFORMATION

School of Mathematics and Statistics
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RESEARCH INTERESTS

Geometry and motives of algebraic varieties, moduli spaces with connections to number theory.
Families of varieties and their arithmetic over global fields via rational points on moduli stacks.

ACADEMIC POSITIONS

The University of Sydney, New South Wales, Australia

Lecturer, 2024 Fall - Present

The University of Melbourne, Victoria, Australia

Research Fellow, 2022 Fall - 2024 Spring

Max Planck Institute for Mathematics, Bonn, Germany

Postdoctoral Fellow, 2021 Fall - 2022 Spring

IBS Center for Geometry and Physics, Pohang, South Korea

Senior Research Fellow / Military Service, 2018 Fall - 2021 Spring

EDUCATION

University of Minnesota, Twin Cities

Ph.D. in Mathematics, 2012 Fall - 2018 Spring

Advisor: Craig Westerland

M.Sc. in Mathematics, 2016 Spring

B.Sc. in Mathematics, 2008 Fall - 2011 Fall

Pennsylvania State University

Mathematics Advanced Study Semester, 2009 Fall

Independent University of Moscow

Mathematics in Moscow, 2010 Spring

Brown University

Visiting student hosted by Thomas Goodwillie, 2018 Spring

SUBMITTED ARTICLES

1. *Counting isomorphism classes of elliptic curves over $\mathbb{F}_q(t)$*
arXiv:2507.06754.
2. *100% of elliptic curves with a marked point have positive rank*
arXiv:2504.01965. (with Tristan Phillips)
3. *Height moduli on cyclotomic stacks and counting elliptic curves over function fields*
arXiv:2210.04450. (with Dori Bejleri and Matthew Satriano)
4. *Étale cohomological stability of the moduli space of stable elliptic surfaces*
arXiv:2207.02496. (with Oishee Banerjee and Johannes Schmitt)

PUBLISHED ARTICLES

5. *Arithmetic geometry of the moduli stack of Weierstrass fibrations over \mathbb{P}^1*
Mathematische Zeitschrift, **310**, No. 4 : #84 (2025) (with Johannes Schmitt)

6. *Enumerating odd-degree hyperelliptic curves and abelian surfaces over \mathbb{P}^1*
Mathematische Zeitschrift, **304**, No. 1 : #5 (2023) (with Changho Han)
7. *Motive of the moduli stack of rational curves on a weighted projective stack*
Research in the Mathematical Sciences, **8**, No. 1 : #1 (2021) (with Hunter Spink)
Special issue of PIMS 2019 Workshop on Arithmetic Topology
8. *Arithmetic of the moduli of semistable elliptic surfaces*
Mathematische Annalen, **375**, No. 3-4 : 1745-1760 (2019) (with Changho Han)
9. *Unique fiber sum decomposability of genus 2 Lefschetz fibrations*
Topology and its Applications, **222** : 29-52 (2017)
10. *Lantern substitution and new symplectic 4-manifolds with $b_2^+ = 3$*
Mathematical Research Letters, **21**, No. 1 : 1-17 (2014) (with Anar Akhmedov)

POSTGRADUATE
SUPERVISION

Oscar Rochanakij, *Motivic classes of the moduli space of maps from \mathbb{P}^1 to Grassmannian varieties*, Master of Science, University of Melbourne, jointly supervised with Yaping Yang and Arun Ram; Nominated for the 2024 Best MSc Thesis Prize.

INSTRUCTOR

Math 3061: *Geometry & Topology* (University of Sydney Fall 2025)
Math 1062/1023: *Multivariable Calculus and Modelling* (University of Sydney Spring 2025)
Topics in NT: *Totality of rational points on moduli stacks - Counting families of varieties* (Korea Institute for Advanced Study (KIAS) Winter School on Number Theory January 2025)
Math 1004: *Discrete Mathematics* (University of Sydney Fall 2024)
Topics in AG: *Elliptic Surfaces - Classical to Moduli* (University of Melbourne Spring 2023)

CO-ORGANIZATION
SERVICES

Spaces, Functions and Numbers Seminar, The University of Sydney, 2025 Spring - Present
Pure Mathematics Seminar, The University of Melbourne, 2023 Spring - 2024 Spring
Pohang Mathematics Workshop, Maison Glad Jeju Island, South Korea, December 5–8, 2019

CONFERENCE
TALKS

Summer Research Institute in Algebraic Geometry, Colorado State University, July 2025
Teichmüller Theory and Flat Structures, MATRIX, Melbourne, March 2025
Fourth W. Killing and K. Weierstrass Colloquium, University of Gdańsk, Poland, July 2022
Invariants in Algebraic Geometry, Institut de Mathématiques de Bourgogne, Dijon, May 2022
Inaugural France-Korea Conference in Algebraic Geometry, Number Theory and Partial Differential Equations, Institut de Mathématiques de Bordeaux, November 2019

SEMINAR
TALKS

Pure Mathematics Seminar, The University of Melbourne, May 2024
Harvard / MIT Algebraic Geometry Seminar, Harvard University, April 2023
Geometry & Topology Seminar, University of Waterloo, April 2023
Topology Seminar, University of Southern California, April 2023
Algebra and Topology Seminar, Australian National University, November 2022
Number Theory Seminar, Seoul National University, September 2022
Algebra, Geometry & Physics, Humboldt-Universität zu Berlin, April 2022
Number Theory Lunch Seminar, Max Planck Institute for Mathematics, September 2021
Algebraic Geometry Seminar, Korea Institute for Advanced Study, July 2021
Harvard / MIT Algebraic Geometry Seminar, MIT, April 2018
Algebra and Algebraic Geometry Seminars, Brown University, April 2017