

Jun-Yong Park

CONTACT INFORMATION

Center for Geometry and Physics
Institute for Basic Science (IBS)
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RESEARCH INTERESTS

Arithmetic geometry & Number theory: arithmetic of the moduli of fibrations, applications to fibred surfaces and their moduli, enumerating algebraic curves and Abelian varieties over global fields.

ACADEMIC POSITIONS

IBS Center for Geometry and Physics, POSTECH, Pohang, South Korea

Research Fellow / Military Service: Technical Research Personnel, 2018 Fall - Present

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

Enumerating algebraic curves and Abelian varieties over global fields with lower order terms
Submitted, arXiv:2002.00563. (with Changho Han)

ℓ -adic étale cohomology of the moduli of elliptic and hyperelliptic fibrations
Submitted, arXiv:1812.11694.

ARTICLES IN PREPARATION

Arithmetic of the irreducible compact moduli of unstable elliptic surfaces
(with Dori Bejleri, Changho Han, Johannes Schmitt)

Arithmetic of the moduli space of monopoles

Arithmetic of the moduli of elliptic K3 fibered Calabi-Yau 3-folds

PUBLISHED ARTICLES

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 Pacific Institute for the Mathematical Sciences Workshop on Arithmetic Topology

Arithmetic of the moduli of semistable elliptic surfaces

Mathematische Annalen, **375**, No. 3-4 : 1745-1760 (2019) (with Changho Han),

Unique fiber sum decomposability of genus 2 Lefschetz fibrations

Topology and its Applications, **222** : 29-52 (2017)

Lantern substitution and new symplectic 4-manifolds with $b_2^+ = 3$

Mathematical Research Letters, **21**, No. 1 : 1-17 (2014) (with Anar Akhmedov)

AWARDS	<p>Research Prize in Distinguished Achievement, Institute for Basic Science, 2019</p> <p>Postdoctoral Research Fellowship, Institute for Basic Science, 2018 - 2021</p>
INSTRUCTOR	Multivariable Calculus (University of Minnesota Summer 2014)
TEACHING ASSISTANT	<p>Calculus I (University of Minnesota Fall 2012)</p> <p>Calculus II (University of Minnesota Spring 2013)</p> <p>Honors Vector Calculus (University of Minnesota Fall 2013)</p> <p>Vector Analysis (University of Minnesota Spring 2014)</p> <p>Linear Algebra and Differential Equations (University of Minnesota 2014 - 2015)</p> <p>Multivariable Calculus (University of Minnesota 2015 - 2017)</p> <p>Riemannian Geometry taught by Robert Gulliver (University of Minnesota Fall 2012)</p> <p>Algebraic Topology taught by Alexander Voronov (University of Minnesota Fall 2016)</p>
WORKSHOP CO-ORGANIZATION	Pohang Mathematics Workshop, Maison Glad Jeju Island, South Korea, December 5–8, 2019
CONFERENCE, WORKSHOP TALKS	<p>KMS Spring Meeting in Number Theory and Arithmetic, Online, July 2020</p> <p>Inaugural France-Korea Conference in Algebraic Geometry, Number Theory and Partial Differential Equations, Institut de Mathématiques de Bordeaux, November 2019</p> <p>Workshop in Algebraic Geometry at Gunsan, Ritz–Plaza Hotel, South Korea, October 2018</p> <p>Chicago Summer School in Topology and Geometry, University of Chicago, June 2018</p> <p>AMS Graduate Conference in Geometry & Topology, Brown University, April 2018</p> <p>Midwest Algebraic Geometry Graduate Conference, University of Illinois Chicago, April 2017</p> <p>Conference in Algebra, Geometry, and Topology, Temple University, May 2016</p>
SEMINAR TALKS	<p>CGP Algebraic Geometry Seminar, IBS Center for Geometry and Physics, August 2020</p> <p>CGP Director’s Seminar, IBS Center for Geometry and Physics, May 2020</p> <p>CGP Derived Seminar, IBS Center for Geometry and Physics, January 2019</p> <p>Harvard / MIT Algebraic Geometry Seminar, MIT, April 2018</p> <p>Algebra and Algebraic Geometry Seminars, Brown University, April 2017</p> <p>CGP Seminar, IBS Center for Geometry and Physics, January 2017</p> <p>Topology Seminar, University of Massachusetts Amherst, October 2015</p>
LECTURE SERIES	Postdoctoral Lecture Series, “Arithmetic of the moduli of fibered algebraic surfaces with heuristics for counting curves over global fields” 3 lectures (IBS - CGP October 2018)
POSTER PRESENTATIONS	<p>ICERM Birational Geometry and Arithmetic, Brown University, May 2018</p> <p>AGNES Algebraic Geometry Northeastern Series, Northeastern University, October 2017</p> <p>5th Heidelberg Laureate Forum, Heidelberg University, September 2017</p>
SERVICES	Departmental service: Graduate student member for University of Minnesota Twin Cities College of Science & Engineering (CSE) Consultative Committee, 2016 - 2017