

- Personal** 200 D.W. Brooks Drive, Room 606  
Athens, GA 30602, USA  
Canadian Citizen, born in Seoul, South Korea, on January 3, 1992.  
Phone: (617) 631-2811
- Employment** · **University of Georgia** Limited Term Assistant Professor, 2019 – present
- Education** · **Harvard University**, Ph.D., 2014 – 2019, Advisor: Joseph Harris.  
*Stable log surfaces, trigonal covers, and canonical curves of genus 4.*  
Committee: Joseph Harris, Maksym Fedorchuk, Dori Bejleri.  
· **University of Toronto**, H.B.Sc., 2010 – 2014.
- Publications** 1. (with Ethan Cotterill and Ignacio Darago) *Arithmetic inflection points of arithmetic linear series on hyperelliptic curves (temporary title)*, in preparation  
2. (with Jun-Yong Park) *Arithmetic of the moduli of hyperelliptic fibrations (temporary title)*, in preparation  
3. (with Anand Deopurkar) *Stable log quadrics (temporary title)*, in preparation  
4. (with Anand Deopurkar) *Stable log surfaces, admissible covers, and canonical curves of genus 4*, arXiv:1807.08413 (Submitted)  
5. (with Jun-Yong Park) *Arithmetic of the moduli of semistable elliptic surfaces*, Math. Ann. **375** (2019), pp. 1745–1760.
- Awards** · NSERC Postgraduate Scholarships-Doctoral Program, May 2016 - April 2019  
· The Norman Stuart Robertson Scholarship in Mathematics, 2013  
· NSERC Undergraduate Student Research Awards, May 2012 - August 2012  
· The Coxeter Scholarship in Mathematics, 2012  
· Queen Elizabeth II Aiming for Top Scholarship, 2010 – 2014
- Research** Algebraic geometry: KSBA compactifications of moduli of surfaces, Hassett-Keel program on moduli of curves, birational geometry and Minimal Model Program, deformations and degenerations, periods and moduli of K3 surfaces, Baily-Borel and toroidal compactifications,  $\mathbb{A}^1$ -enumerative geometry, Moduli of elliptic surfaces, and Grothendieck ring of varieties/stacks.
- Recent Talks** **Fall 2019**  
· **Jan** *CGP Seminar*, IBS–CGP, Pohang, South Korea.  
Birational geometry of moduli spaces of curves and K3 surfaces.  
**Fall 2019**  
· **Oct** *Algebraic Geometry Seminar*, UGA, Athens, GA.  
Moduli of 'almost K3' stable log surfaces, curves of genus 4, and degree 6 K3

surfaces with nonsymplectic  $\mathbb{Z}/3\mathbb{Z}$  group actions.

**Summer 2019**

- **July** *Algebraic Geometry Seminar*, KAIST, Daejeon, South Korea.  
An arithmetic (or real) count of inflection points on hyperelliptic curves.
- **July** *Algebraic Geometry Seminar*, KAIST, Daejeon, South Korea.  
Moduli of 'almost K3' stable log surfaces and curves of genus 4

**Spring 2019**

- **May** *Valley Geometry Seminar*, UMass Amherst, Amherst, MA.  
Moduli of 'almost K3 stable log surfaces'
- **Mar** *Harvard/MIT Algebraic Geometry Seminar*, Harvard University, Cambridge, MA.  
'Almost K3' stable log surfaces and curves of genus 4.
- **Feb** *BC NT & AG Seminar*, Boston College, Chestnut Hill, MA.  
'Almost K3' stable log surfaces and curves of genus 4.
- **Jan** *Pick My Brain Seminar*, Northeastern University, Boston, MA.  
Modular compactifications of moduli spaces in algebraic geometry.

**Spring 2018**

- **Feb** *Algebraic Geometry Seminar*, Brown University, Providence, RI.  
A birational model of moduli of genus 4 curves using stable log surfaces.

**Spring 2017**

- **May** *AMS graduate student conference in algebra and number theory*, Brown University, Providence, RI.  
Compactifying moduli of genus four curves using moduli of log surfaces.
- **Jan** *Algebraic Geometry Seminar*, University of Georgia, Athens, GA.  
KSBA compactifications of smooth quadrics and trigonal genus four curves.

- Conferences**
- **September 2019**, *Algebraic Geometry Northeastern Series*, Boston College, Boston, MA
  - **May 2019**, *Recent Progress in Moduli Theory*, MSRI, Berkeley, CA
  - **March 2019**, *Arizona Winter School 2019: Topology and Arithmetic*, University of Arizona, Tucson, AZ
  - **December 2018**, *FRG Workshop on Moduli Spaces of sheaves and Bridgeland Stability*, UIC, Chicago, IL
  - **November 2018**, *D-Modules and Hodge Theory*, UIC, Chicago, IL
  - **October 2018**, *Moduli Spaces: Birational Geometry and Wall Crossings*, BIRS, Banff, AB, Canada
  - **October 2018**, *Western Algebraic Geometry Symposium*, University of Oregon, Eugene, OR
  - **September 2018**, *Algebraic Geometry Northeastern Series*, Brown University, Providence, RI

- **July 2018**, *Moduli Spaces in Algebraic Geometry and Applications*, satellite conference of ICM, Campinas, Brazil
- **June – July 2018**, *Summer Graduate School on Derived Categories*, MSRI, Berkeley, CA
- **May 2018**, *Birational Geometry and Arithmetic*, ICERM, Providence, RI
- **January 2018**, *Korean-Italian Meeting on Algebraic Geometry*, KIAS, Seoul, South Korea
- **October 2017**, *Algebraic Geometry Northeastern Series*, Northeastern University, Boston, MA
- **August 2017**, *Conference on Birational Geometry*, Simons Foundation, New York, NY
- **June 2017**, *Géométrie Algébrique en Liberté XXV*, University of Bath, Bath, UK
- **June 2017**, *Linear Systems on Irregular Varieties*, Como, Italy
- **May 2017**, *Geometry of Moduli Spaces*, UCSD, La Jolla, CA
- **May 2017**, *Mini-workshop in Birational Geometry and Hodge Theory*, Northwestern University, Evanston, IL
- **December 2016**, *Workshop on Combinatorial Moduli Spaces and Intersection Theory*, Fields Institute, Toronto, ON, Canada
- **August 2016**, *Introductory Workshop on Combinatorial Algebraic Geometry*, Fields Institute, Toronto, ON, Canada
- **July 2016**, *Higher Dimensional Algebraic Geometry*, University of Utah, Salt Lake City, UT
- **July 2015**, *AMS Summer Institute on Algebraic Geometry*, University of Utah, Salt Lake City, UT
- **April 2015**, *New Techniques in Birational Geometry*, Stony Brook University, Stony Brook, NY

## Service

- Gave talks for a student seminar on modular curves at UGA, Fall 2019:
  - Introduction to algebraic stacks.
  - Morphisms of algebraic stacks,  $\mathcal{M}_{1,1}$ , and moduli space of level structures.
- Gave numerous talks for two student algebraic geometry seminars (BAGS and AGLS) at Harvard, Spring 2015 – Fall 2018
- Organized two student algebraic geometry seminars (BAGS and AGLS) at Harvard, Spring 2015 – Fall 2017
- Co-organized undergraduate math seminars at University of Toronto, Fall 2012 – Spring 2013

## Teaching

### University of Georgia

- *Instructor for Math 2250 (Calculus I)*, Spring 2020.  
 {Small class initiative, teaching at most 19 students per section. Taught 1 section.}

- *Instructor for Math 1113 (Precalculus)*, Fall 2019.  
{Small class initiative, teaching at most 19 students per section. Taught 2 sections.}

**Harvard University**

- *Coaching Fellow for Math 1b (Calculus, Series, and Differential Equations)*, Spring 2019. {Responsible for taking care of students who need extra help to succeed.}
- *Teaching Fellow for Math 1b (Calculus, Series, and Differential Equations)*, Fall 2017. {Responsible for planning and giving lectures to 20 students, holding office hours, and grading exams.}
- *Teaching Fellow for Math 21b (Linear Algebra and Differential Equations)*, Spring 2017
- *Graduate Course Assistant for Math 258Y (degenerations in algebraic geometry)*, Fall 2016. {Responsible for planning and running sessions that complement the lectures, grading homeworks.}
- *Teaching Fellow for Math 1b (Calculus, Series, and Differential Equations)*, Fall 2015

**University of Toronto**

- *Teaching Assistant for MAT136H1 (Calculus I(B))*, Spring 2014. {Responsible for running tutorials and grading a midterm.}
- *Teaching Assistant for MAT135H1 (Calculus I(A))*, Fall 2013
- *Teaching Assistant for MAT136H1 (Calculus I(B))*, Spring 2013
- *Teaching Assistant for MAT135H1 (Calculus I(A))*, Fall 2012

**References****Joseph Harris**

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