## Curriculum Vitae

(617) 631-2811 · Changho.Han@uga.edu · https://hanchangho.github.io/

**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,

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 (un)stable elliptic surfaces (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 to Compos. Math.)
- 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,  $\mathbb{A}^1$ -enumerative geometry, Moduli of elliptic surfaces, and Grothendieck ring of varieties/stacks.

## Recent Talks 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.

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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

- 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

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## 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

- 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 1113 (Precalculus), Fall 2019.

#### **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

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## 2015

## **University of Toronto**

- Teaching Assistant for MAT136H1 (Calculus 1(B)), Spring 2014. {Responsible for running tutorials and grading a midterm.}
- · Teaching Assistant for MAT135H1 (Calculus 1(A)), Fall 2013
- · Teaching Assistant for MAT136H1 (Calculus 1(B)), Spring 2013
- · Teaching Assistant for MAT135H1 (Calculus 1(A)), Fall 2012

## References

## **Joseph Harris**

Harvard University 1 Oxford Street Cambridge, MA 02138, USA harris@math.harvard.edu

## **Paul Hacking**

University of Massachusetts Amherst Lederle Graduate Research Tower, Box 34515 Amherst, MA 01003-9305, USA hacking@math.umass.edu

## **Cliff Taubes** (Teaching)

Harvard University 1 Oxford Street Cambridge, MA 02138, USA chtaubes@math.harvard.edu

## **Anand Deopurkar**

Australian National University Hanna Neumann Building #145, Science Road Canberra ACT 2601, Australia anand.deopurkar@anu.edu.au

## **Barry Mazur**

Harvard University 1 Oxford Street Cambridge, MA 02138, USA mazur@math.harvard.edu