Changho Han

Curriculum Vitae

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Cambridge, MA 02138, USA

Canadian Citizen, born in Seoul, South Korea, on January 3, 1992.

Phone: (617) 631-2811

Education

- · Harvard University, Ph.D., August 2014 May 2019,
- · University of Toronto, H.B.Sc., September 2010 June 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 (2018)
- 5. (with Jun-Yong Park) Arithmetic of the moduli of semistable elliptic surfaces, arXiv:1607.03187 (under revision at Math. Ann., 2019)

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, moduli spaces/stacks, KSBA compactifications, Hassett-Keel program, minimal model program, A¹-enumerative geometry, rational points on varieties, deformation theory, degenerations, and Grothendieck ring of varieties/stacks.

Recent Talks

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 — March 2019, Arizona Winter School 2019: Topology and Arithmetic, University of Arizona, Tucson, AZ

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- 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
- 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

- \cdot Organized student algebraic geometry seminars at Harvard, Spring 2015 \sim Fall 2017
- \cdot Co-organized undergraduate math seminars at University of Toronto, Fall 2012 \sim Spring 2013

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Teaching

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 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)

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Anand Deopurkar

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Barry Mazur

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