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**CURRICULUM VITAE**

Han-Bom Moon

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**Research Fields:** Algebraic Geometry.

- Birational geometry of moduli spaces.
- Geometry, topology and combinatorics of moduli spaces.
- Geometric invariant theory.
- Geometric and numerical properties of conformal blocks.

**Education**

- Ph.D. in Mathematics, Seoul National University, August 2011.  
Thesis advisor: Young-Hoon Kiem.  
Thesis title: *Birational geometry of moduli spaces of curves of genus zero*.
- B.S. in Mathematics Education, Seoul National University, graduation with honors (Summa cum laude), February 2005.

**Employment**

- Peter M. Curran Visiting Assistant Professor, Fordham University, August 2013 ~
- Postdoctoral Associate, University of Georgia, August 2011 ~ August 2013.

**Awards**

- Excellent Thesis Award, College of Natural Sciences, Seoul National University, August 2011.
- Award for Outstanding Teaching Assistant, the Faculty of Liberal Education, Seoul National University, February 2006.

**Publications and Preprints**

- (With K. Chung) *Moduli of sheaves, Fourier-Mukai transform, and partial desingularization*. [arXiv:1410.8211](https://arxiv.org/abs/1410.8211).
- (With S.-B. Yoo) *Birational geometry of the moduli space of rank 2 parabolic bundles on a rational curve*. [arXiv:1409.6263](https://arxiv.org/abs/1409.6263).
- (With D. Swinarski) *Effective curves on  $\overline{M}_{0,n}$  from group actions*. [arXiv:1406.2196](https://arxiv.org/abs/1406.2196), to appear in Manuscripta Math.
- *Mori program for  $\overline{M}_{0,7}$  with symmetric divisors*. [arXiv:1403.7225](https://arxiv.org/abs/1403.7225).
- *Mori program for  $\overline{M}_{0,6}$  with symmetric divisors*. [arXiv:1403.7224](https://arxiv.org/abs/1403.7224), to appear in Math. Nachr.
- (With A. Gibney, D. Jensen and D. Swinarski) *Veronese quotient models of  $\overline{M}_{0,n}$  and conformal blocks*. *Michigan Math. J.*, 62 (2013), no. 4, 721751.

- (With N. Giansiracusa and D. Jensen) *GIT compactifications of  $M_{0,n}$  and flips*. *Adv. in Math.*, 248, (2013), 242-278.
- *Log canonical models for  $\overline{M}_{g,n}$* . [arXiv:1111.5354](#).
- *Log canonical models for the moduli space of stable pointed rational curves*. *Proc. Amer. Math. Soc.*, 141 (2013), no. 11, 3771-3785.
- *Mori's program for the moduli space of pointed stable rational curves*. [arXiv:1011.3926](#).
- (With Y.-H. Kiem) *Moduli spaces of weighted pointed stable rational curves via GIT*. *Osaka J. of Math.*, Vol. 48, (2011) No. 4, 1115–1140.
- (With Y.-H. Kiem) *Moduli spaces of stable maps to projective space via GIT*. *Internat. J. Math.* 21 (2010), no. 5, 639–664.

## Talks

- Effective curve class computation on moduli of rational curves, seminar talk, KIAS, Korea, August 2014.
- Alternative compactifications of the moduli space of pointed rational curves, seminar talk, IBS-CGP, Korea, July 2014.
- Do we really need integral?, math club talk, Fordham University, March 2014.
- Alternative compactifications of the moduli space of pointed rational curves, seminar talk, KIAS, Korea, January 2014.
- Alternative compactifications of the moduli space of pointed rational curves, seminar talk, Seoul National University, Korea, December 2013.
- Alternative compactifications of the moduli space of pointed rational curves, seminar talk, Yale University, November 2013.
- Birational geometry of  $\overline{M}_{0,n}$  and conformal blocks, seminar talk, KIAS, Korea, July 2013.
- Moduli spaces and their birational geometry, seminar talk, Ehwa Women's university, Korea, July 2013.
- Euler's product formula and its geometric interpretation, colloquium talk at Department of Mathematics Education, Seoul National University, July 2013.
- Birational geometry of  $\overline{M}_{0,n}$  and conformal blocks, seminar talk, KAIST, Korea, July 2013.
- Mori's program for  $\overline{M}_{0,n}$ , seminar talk, KAIST, Korea, July 2013.
- GIT compactifications of  $M_{0,n}$ , The Asian Mathematical Conference 2013, Busan, Korea, July 2013.
- Compactifications of moduli of curves, series lecture at KIAS, Korea, June 2013.
- Birational geometry of  $\overline{M}_{0,n}$  and conformal blocks, seminar talk, Princeton, March 2013.
- Moduli spaces and their birational geometry, seminar talk, Fordham, February 2013.
- Moduli spaces and their birational geometry, seminar talk, University of Georgia, February 2013.
- Toward a classification of projective modular compactifications of  $M_{0,n}$ , seminar talk, UGA, October 2012.
- Introduction to Geometric Invariant Theory, four hours lecture on Summer School on Algebraic Geometry, Sol Beach, Korea, June 2012.
- New family of nef divisors on  $\overline{M}_{0,n}$ , seminar talk, KIAS, Korea, June 2012.
- GIT compactifications of  $M_{0,n}$ , seminar talk, KIAS, Korea, June 2012.
- GIT compactifications of  $M_{0,n}$ , seminar talk, Seoul National University, Korea,

June 2012.

- Mori's program for moduli spaces of pointed curves and psi-classes, seminar talk, UGA, September 2011.
- Moduli spaces and their birational geometry, Algebra camp, Seoul National University, Korea, August 2011.
- Mori's program for moduli spaces of pointed curves and psi-classes, Workshop on Moduli and Birational Geometry, Gyeongju, Korea, July 2011.
- Mori's program for  $\overline{M}_{0,n}$ , seminar talk, Brown University, May 2011.
- Moduli spaces and its birational geometry, seminar talk, Chungnam University, Korea, April 2011.
- Mori's program for the moduli space of pointed stable rational curves, Global KMS International Conference, Postech, Korea, October 2010.
- Introduction to moduli spaces, Workshop for Young Mathematicians in Korea, KAIST, Korea, July 2010.
- Elementary construction of the moduli spaces of rational curves via GIT, Mini workshop on curves, Seoul National University, Korea, March 2010.
- On GIT constructions of Kontsevich moduli spaces of stable maps, Joint Meeting of the KMS and AMS, Ewha Women's University, Korea, December 2009.
- Cohomology of moduli spaces of stable maps to projective space, Algebra camp, Seoul National University, Korea, January 2008.

### Service and outreach

- Paper refereed for Journal of Algebra, Bulletin of the Korean Mathematical Society, and Journal of Mathematical Society of Japan.
- Organizing graduate students algebraic geometry seminar in UGA (Fall 2011, Fall 2012, Spring 2013).
- Organizing "Mini workshop on toric varieties", a graduate student workshop in Seoul National University (Jan. 14–18, 2011).

### Teaching Experience

- At Fordham University
  - Two sections of Math for Business: Precalculus (Fall 2014)
  - Abstract Algebra (Spring 2014, Fall 2014)
  - Two sections of Math for Business: Calculus (Spring 2014)
  - Multivariable Calculus I (Fall 2013)
  - Math for Business: Finite (Fall 2013)
- At University of Georgia
  - Two sections of Calculus for Engineering and Science II (Spring 2013)
  - Two sections of Calculus for Engineering and Science II (Fall 2012)
  - Two sections of Calculus for Engineering and Science I (Spring 2012)
- At Seoul National University
  - Calculus I (Spring 2011), Teaching Assistant
  - Graduate Algebra II (Fall 2010), Grading Assistant
  - Graduate Algebra I (Spring 2010), Grading Assistant
  - Calculus II (Fall 2009), Teaching Assistant
  - Undergraduate Algebra II (Fall 2009), Grading Assistant
  - Calculus I (Spring 2009), Teaching Assistant
  - Undergraduate Algebra I (Spring 2009), Grading Assistant

- Calculus II (Fall 2008), Teaching Assistant
- Linear Algebra (Fall 2008), Grading Assistant
- Honor Calculus I (Spring 2008), Teaching Assistant
- Algebraic Geometry (Spring 2008), Grading Assistant
- Honor Calculus II (Fall 2007), Teaching Assistant
- Differential Geometry (Fall 2007), Grading Assistant
- Honor Calculus I (Spring 2007), Teaching Assistant
- Engineering Mathematics (Spring 2007), Grading Assistant
- Calculus II (Fall 2006), Teaching Assistant
- Graduate Algebra II (Fall 2006), Grading Assistant
- Honor Calculus I (Spring 2006), Teaching Assistant
- Linear Algebra (Spring 2006), Grading Assistant
- Calculus II (Fall 2005), Teaching Assistant
- Geometric Algebra (Fall 2005), Grading Assistant
- Calculus I (Spring 2005), Teaching Assistant
- Guiding a math club SEHM in Department of Mathematics Education, Seoul National University during 2005–2011.
- Obtaining a secondary school mathematics teacher’s license in South Korea, February 2005.

**Personal**

Born April 1982, Busan, Korea. South Korean citizen.

**References**

- Young-Hoon Kiem (Thesis advisor), Seoul National University, *kiem@math.snu.ac.kr*
- Valery Alexeev, University of Georgia, *valery@math.uga.edu*
- Izzet Coskun, University of Illinois at Chicago, *coskun@math.uic.edu*
- Angela Gibney, University of Georgia, *agibney@math.uga.edu*
- Ian Morrison, Fordham University, *morrison@fordham.edu*
- Leonard Chastkofsky (Teaching), University of Georgia, *lenny@math.uga.edu*