

José Ignacio Yáñez

Curriculum Vitae

Last Updated: May 29, 2023

CONTACT INFORMATION

University of Utah 155 S 1400 E, Office JWB 306
Department of Mathematics Salt Lake City, Utah 84112

Email: yanez@math.utah.edu Webpage: www.math.utah.edu/~yanez

EMPLOYMENT

Hedrick Assistant Adjunct Professor, UCLA

Starting July 2023

EDUCATION

Ph.D. in Mathematics, University of Utah

August 2017 – May 2023

Advisor: Christopher Hacon

Thesis title: *Application of Coxeter groups to the Kawamata – Morrison conjecture*

M.S in Mathematics, Pontificia Universidad Católica de Chile

March 2015 – June 2017

Advisor: Giancarlo Urzúa

Thesis title: *Characterization of Kollár surfaces*

B.S in Mathematics, Pontificia Universidad Católica de Chile

March 2010 – December 2014

RESEARCH INTERESTS

Algebraic geometry

PUBLICATIONS AND PREPRINTS

1. MMP for generalized pairs on Kähler 3-folds (joint with Omprokash Das and Christopher Hacon). [arxiv:2305.00524](https://arxiv.org/abs/2305.00524)
2. Movable cones of complete intersections of multidegree one on products of projective spaces (joint with M. Hoff and I. Stenger). [arxiv:2207.11150](https://arxiv.org/abs/2207.11150) (submitted)

3. Birational automorphism groups and the movable cone theorem for Calabi-Yau complete intersections of products of projective spaces, *Journal of Pure and Applied Algebra* 226, no. 10 (2022): 107093
4. Characterization of Kollár surfaces (joint with G. Urzúa), *Algebra & Number Theory* Vol. 12 (2018), No. 5, 1073 - 1105.

RESEARCH TALKS

- Application of Coxeter groups to the Kawamata - Morrison conjecture*
Penn State University, Algebra and Number Theory Seminar (October 2022)
- Birational automorphisms and movable cone of Calabi-Yau complete intersections*
American Graduate Student Algebraic Geometry Seminar (December 2020)
- Numerical dimension of divisors*
PUC Chile, Algebraic Geometry Seminar (May 2020)
- Counterexamples to Fujita's conjecture on surfaces in positive characteristic*
Algebraic Geometry Preprint Seminar (February 2020)
- Notions of numerical Iitaka dimension do not coincide*
Algebraic Geometry Preprint Seminar (October 2019)
- Characterization of Kollár surfaces*
University of Utah, Algebraic Geometry Student Seminar (September 2017)
- Accumulation points of K^2 for stable surfaces*
PUC Chile, Algebraic Geometry Seminar (April 2017)
- Characterization of Kollár surfaces*
XXX Jornada de Matemática de la Zona Sur (April 2017)

INTRODUCTORY TALKS

- The volume function*
University of Utah, Algebraic Geometry Student Seminar (October 2021)
- The Kawamata-Morrison conjecture*
University of Utah, Algebraic Geometry Student Seminar (September 2020)
- Introduction to numerical dimension of divisors*
University of Utah, Algebraic Geometry Student Seminar (January 2020)
- Introduction to Multiplier ideals*
PUC Chile, Algebraic Geometry Seminar (June 2019)
- Multiplier Ideals and where to find them*
University of Utah, Algebraic Geometry Student Seminar (March 2019)

Kawamata-Viehweg vanishing theorem

University of Utah, Algebraic Geometry Student Seminar (November 2018)

Log Canonical pairs and the Cone Theorem

PUC Chile, Algebraic Geometry Seminar (April 2017)

Introduction to the Minimal Model Program

PUC Chile, Algebraic Geometry Seminar (March 2017)

OUTREACH TALKS

How hard is it to divide integers?

University of Utah, Graduate Colloquium (September 2022)

To the Pythagorean theorem and beyond

University of Utah, Undergraduate Colloquium (February 2022)

Negative Continued Fractions

University of Utah, Graduate Colloquium (November 2021)

Knowing the infinities

East High School, Modern Math class (May 2021)

Can we color any map?

University of Utah, Graduate Colloquium (March 2021)

Down-to-earth topology

University of Utah, Graduate Colloquium (November 2019)

Do we know all the numbers?

University of Utah, Graduate Colloquium (October 2018)

TEACHING

UNIVERSITY OF UTAH, Instructor of record

Math 2200, Discrete Mathematics (Spring 2022)

Math 1100, Business Calculus (Fall 2020)

Math 1310, Engineering Calculus I (Fall 2019)

Math 1060, Trigonometry (Fall 2018)

UNIVERSITY OF UTAH, Teaching assistant

Math 2250, Differential Equations and Linear Algebra (Spring 2018)

Math 2250, Differential Equations and Linear Algebra (Fall 2017)

PUC CHILE, Teaching assistant

Mat 2205, Abstract Algebra I, (Fall 2017)

Mat 2335, Introduction to Algebraic Geometry (Fall 2016)

Mat 2205, Abstract Algebra I (Spring 2015)

Mat 110E, Business Algebra (Fall 2015)

Mat 1216, Introduction to Linear Algebra (Spring 2014)
Mat 1203, Linear Algebra (Fall 2014)
Mat 1620, Calculus II (Summer 2014)
Mat 1012, Algebra (Summer 2013)
Mat 1012, Algebra (Fall 2012)
Mat 1012, Algebra (Fall 2011)

SERVICE AND ADVISING

Mentor for the Directed Reading Program, University of Utah

Group theory, following "Abstract Algebra" by Dummit & Foote (Spring 2021)

Algebraic topology, following "Topology of finite graphs" by J. Stallings, and "Algebraic topology" by A. Hatcher (Spring 2020)

Teaching assistant, Moduli of curves problem sessions (Minicourse by Angela Gibney)

BRIDGES conference, University of Utah (Summer 2022)

Algebra qualifying exam review sessions

University of Utah (Summer 2020)

Organizer of the Algebraic geometry student seminar

University of Utah (Fall 2019 – Spring 2022)

Organizer of the Graduate colloquium

University of Utah (Fall 2019 – Spring 2021)

Organizer of the Graduate colloquium

PUC Chile (2016)