

# Olivier Martin

Department of Mathematics  
Stony Brook University  
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## Employment

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2020-            **James H. Simons Instructor**, Stony Brook University

## Education

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2020            **University of Chicago**, PhD in Mathematics  
Advisors: Alexander A. Beilinson and Madhav V. Nori  
Thesis: *Zero-cycles and measures of irrationality for abelian varieties*

2017            **University of Chicago**, MSc in Mathematics

2014            **McGill University**, BSc in Pure Mathematics, First Class Honours

## Extended Academic Stays

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2019            **Collège de France**, Visiting researcher

## Research Interests

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Algebraic geometry, algebraic cycles, birational geometry, and  $K$ -trivial varieties.

## Publications

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- *Effective zero-cycles and the Bloch-Beilinson filtration*, arXiv:2208.10026 (2022).
- (with R. Lazarsfeld) *Measures of association between algebraic varieties*, arXiv:2112.00785 (2021).
- (with N. Chen) *Rational maps from products of curves to surfaces with  $p_g = q = 0$* , arXiv:2111.08194 (2021).
- *The degree of irrationality of most abelian surfaces is 4*, Ann. Scient. Éc. Norm. Sup., 55 (2022).
- (with E. Colombo, J. C. Naranjo, & G. P. Pirola) *Degree of irrationality of a very general abelian variety*, IMRN, 11 (2022).
- *On a conjecture of Voisin on the gonality of very general abelian varieties*, Adv. Math., 369 (2020).

## Awards & Grants

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2021	AMS Simons Travel Grant
2020	NSERC Postdoctoral Fellowship (Declined)
2018	Collège de France Science Travel Grant, University of Chicago
2016	NSERC Alexander Graham Bell Canada Postgrad. Scholarship Doctoral (Declined)
2016	NSERC Postgraduate Scholarship Doctoral
2016	FRQNT B2 Graduate Studies Scholarship (Declined)
2014	FRQNT B1 Graduate Studies Scholarship
2014	McCormick Scholarship, University of Chicago
2014	Gowrisankaran Prize in Mathematics, McGill University
2013	Herbert J. Brennen Scholarship for Excellence in Mathematics, McGill University

## Teaching

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### Stony Brook University

Fall 2022	MAT 663 – Advanced Topics in Algebraic Geometry: <i>Selected topics on algebraic cycles</i>
Spring 2022	MAT 200 – Logic, Language, and Proof (2 sections)
Fall 2021	MAT 313/MAT 524 – Algebra I
Spring 2021	MAT 314/MAT 525 – Algebra II (hybrid)
Fall 2020	MAT 200 – Logic, Language, and Proof (remote)

### University of Chicago

Winter 2020	MATH 15300 – Calculus III (2 sections)
Winter 2019	MATH 19620 – Linear Algebra
Fall 2018	MATH 19620 – Linear Algebra
Spring 2018	MATH 19520 – Mathematical Methods for the Social Sciences
Fall 2017	MATH 15300 – Calculus III
Spring 2017	MATH 19620 – Linear Algebra
Fall 2016	MATH 15300 – Calculus III

## Talks

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2022	AMS-EMS-SMF Joint International Meeting - Special session on alg. geom.	France
	Columbia University, Algebraic geometry seminar	USA
2021	Institut de Mathématiques de Jussieu, Algebraic geometry seminar (remote)	France
	Institute for Basic Science, Algebraic geometry seminar (remote)	Korea
	Mittag-Leffler Institute, Semester program on algebraic cycles and moduli	Sweden
	University of Århus, Algebraic geometry seminar	Denmark
	University of California San Diego, Algebraic geometry seminar (remote)	USA
2020	University California Santa Barbara, Algebraic geometry seminar (remote)	USA
	Stony Brook University, Algebraic geometry seminar (remote)	USA
	Universidad de Buenos Aires, Algebraic geometry seminar (remote)	Argentina
	University of Chicago, Algebraic geometry seminar	USA
	Hodge Theory, Arithmetic and Moduli II, Texas A&M University	USA
2019	Purdue University, Algebraic geometry seminar	USA
	Università di Milano, Algebraic geometry seminar	Italy
	Universitat de Barcelona, Algebraic geometry seminar	Spain
	Università di Milano, Algebraic geometry seminar	Italy

	Università di Pavia, Algebraic geometry seminar	Italy
	Institut de Mathématiques de Jussieu, Algebraic geometry seminar	France
	Stony Brook University, Algebraic geometry seminar	USA
	Midwest Algebraic Geometry Graduate Conference (MAGGC), UIC	USA
	Northwestern University, Algebraic geometry seminar	USA
	University of Chicago, Algebraic geometry seminar	USA
2017	Interactions between Representation Theory and Algebraic Geometry, University of Chicago (intro. talk)	USA

## Conferences & Programs

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2022	Co-organizer, Birational Complexity of Algebraic Varieties, Simons Center for Geometry and Physics (SCGP)
2022	Co-organizer, RTG Workshop on Birational Complexity of Algebraic Varieties, SCGP

## Service & Outreach

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2022-	Co-organizer, Math Postdoc Seminar, Stony Brook University & SCGP
2020-	Co-organizer, Algebraic Geometry Seminar, Stony Brook University
2016-2017	Organizer, Student Algebraic Geometry Seminar, University of Chicago
2016	Mentor, Directed Reading Program, University of Chicago
2013	Counselor, Program in Mathematics for Young Scientists, Boston University

## Thesis Committee

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2022	Alexandra Viktorova — <i>Singular cubic threefolds, and their cohomology</i> , Stony Brook University
2021	Nathan Chen — <i>Measuring the Irrationality of Abelian Surfaces and Complete Intersections</i> , Stony Brook University

## Advising

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2022-	Donglian Liu
2021-2022	Edward Varvak — Graduate student at UIC since Fall 2022.

## Refereeing

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- Bolletino dell'Unione Matematica Italiana
- Mathematische Annalen
- Pure and Applied Mathematics Quarterly