

# Jia Jia

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## Research fields

Algebraic Geometry, Birational Geometry

## Education

**2014 - 2018** BSc (Honours) - [Zhejiang University](#), Hangzhou  
[School of Mathematical Sciences](#), and [Chu Kochen Honors College](#)

**2018 - 2023** PhD - [National University of Singapore](#), Singapore  
[Department of Mathematics](#)  
Supervisor: [De-Qi Zhang](#)

## Employment

**2022 - 2023** *Student Researcher* - [National University of Singapore](#), Singapore  
[Department of Mathematics](#)  
Supervisor: [De-Qi Zhang](#)

**June 2023 -** *Postdoctoral Research Fellow* - [Tsinghua University](#), People's Republic of China  
[Yau Mathematical Sciences Center](#)  
Mentor: [Caucher Birkar](#)

## Honours & Awards

**June 2023** Shuimu Tsinghua Scholar Program, [Tsinghua University](#)

**Oct 2022** PhD Conference Award, [Faculty of Science](#), National University of Singapore,

**2018-2022** President's Graduate Scholarship, National University of Singapore

**Nov 2017** National Scholarship, Ministry of Education of the People's Republic of China

## Publications

### Accepted articles

1. Wild automorphisms of compact complex spaces of lower dimensions Proceedings of the American Mathematical Society (to appear) (with L. Wang) [arXiv:2211.12245](#)
2. Automorphisms groups of compact complex surfaces: T-Jordan property, Tits alternative and solvability, The Journal of Geometric Analysis, **33**, Article number: 219 (2023), [link](#)

3. Surjective endomorphisms of projective surfaces: the existence of infinitely many dense orbits, *Mathematische Zeitschrift* **303**, Article number: 39 (2023) (with J. Xie and D.-Q. Zhang) [link](#)
4. Endomorphisms of quasi-projective varieties – towards Zariski dense orbit and Kawaguchi-Silverman conjectures, *Mathematical Research Letters* (to appear) (with T. Shibata, J. Xie and D.-Q. Zhang) [arXiv:2104.05339](#)
5. Amplified endomorphisms of Fano fourfolds, *manuscripta mathematica* (2022) (with G. Zhong) [link](#)
6. Potential density of projective varieties having an int-amplified endomorphism, *New York J. Math.* **28** (2022) 433-444. (with T. Shibata and D.-Q. Zhang) [pdf](#)

## Preprints

1. Smooth projective surfaces with pseudo-effective tangent bundles (with Y. Lee and G. Zhong) [arXiv:2302.10077](#)
2. Moishezon manifolds with no nef and big classes (with S. Meng) [arXiv:2208.12013](#)
3. Equivariant Kähler model for Fujiki's class (with S. Meng) [arXiv:2108.11595](#)

## Seminar Talks

- Surjective Endomorphisms of Projective Surfaces, Algebraic Dynamics Seminar, Korea Institute for Advanced Study, 15 July 2020
- Surjective Endomorphisms of Projective Surfaces, Topology & Geometry Seminar, National University of Singapore, 21 Oct. 2020
- Surjective Endomorphisms of Affine and Projective Surfaces, Seminar of Algebraic Geometry in East Asia, 3 Sept. 2021
- Potential density of projective varieties, Topology & Geometry Seminar, National University of Singapore, 12 Jan. 2022
- Automorphisms Groups of Compact Complex Surfaces, Workshop: Recent Development in Algebraic Geometry, National University of Singapore, 30 August 2022

## Conference

### Co-organized with others

- [Recent Development in Algebraic Geometry](#), Jointly organised by Jia Jia, Wing-Keung To and De-Qi Zhang, Tuesday 30 Aug 2022

### Attended

- [Conference on Complex Analysis, Complex Geometry and Dynamics](#) (in memory of Nessim Sibony), Laboratoire de Mathématiques d'Orsay, Université Paris-Saclay, France, 5 Dec 2022 – 9 Dec 2022,

## Teaching Experience

- Fall 2019, Basic Applied Mathematics for Sciences (Tutor)
- Spring 2020, Multivariable Calculus (Tutor)
- Fall 2020, Basic Discrete Mathematics (Tutor)

## Skills

**Languages**

Chinese - mother tone  
English - fluent

**Programming**

Lua  
Python  
Swift/SwiftUI

**Software**

git - source version control  
Neovim  
T<sub>E</sub>X

**References**

[Caucher Birkar](#) (Mentor at YMSC)  
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