

# Antoine Pinardin

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🌐 <http://www.antoinepinardin.com>

## Research Interests




Algebraic geometry, with a particular focus on birational geometry, especially in a  $G$ -equivariant setting. Subgroups of Cremona and  $G$ -equivariant Minimal Model Program.  $K$ -stability of Fano varieties.

## Publications




### Articles

- 1 I. Cheltsov, O. Li, S. Ma'u, and A. Pinardin, *K-stability and space sextic curves of genus three*, 2024. arXiv: 2404.07803 [math.AG].
- 2 A. Pinardin, "G-solid rational surfaces," *European Journal of Mathematics*, vol. 10, no. 2, pp. 1–23, 2024.

## Education

- Oct. 2021 – . . . . .  **Ph.D in Algebraic Geometry**, University of Edinburgh.  
Supervisor : Ivan Cheltsov
- Sep.2020 – Sept.2021  **M.Sc. Fundamental Mathematics**, University of Paris.  
Thesis title: *GIT and hyperkähler structures of the Hilbert Schemes of points on surfaces*.  
Supervisor : Daniele Faenzi
- Sep. 2019 – Sept.2020  **M.Sc. Applied Algebra**, University of Paris-Saclay.  
Thesis title: *Determinants and Resultants in Higher Dimension*.  
Supervisors : Daniele Faenzi and Ronan Terpereau



## Grants and Awards

- Sept. 2021  **Leverhulme Early Career Fellowship.**  
Research grant awarded by the Leverhulme Trust.
- Jan. 2024  **ICMS Conference Grant.**  
Grant awarded by the International Center for Mathematical Sciences for organising a worldwide conference.
- June 2024  **Blues Award of the University of Edinburgh.**  
Highest award for an Edinburgh University Athlete.

## Employment Record

- Jan. 2022 – . . . . .  **Tutor in Mathematics for Undergraduate and M.Sc. Students**, University of Edinburgh.

## Research Visits

- Dec 2022  **University of Auckland, New Zealand.**  
On a joint project with Sione Ma'u, Ivan Cheltov, and Oliver Li. Invited for three weeks.
- Nov-Dec 2023  **University of Aix-Marseille, France.**  
On a joint project with Prof.Frédéric Mangolte. Invited for a week.

## Invited Talks

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- Dec 2023  *G-Solid rational surfaces*. Aix-Marseille University, Marseille, France. Department seminar.
- Dec 2023  *G-Solid rational surfaces*. University of Lille, Lille, France. Department seminar.
- Jan 2024  *G-Solid rational surfaces*. Charmey, Switzerland. Swiss-french workshop on algebraic geometry.
- Feb 2024  *G-Solid rational surfaces*. University of Birmingham, United Kingdom. CALF seminar.
- June 2024  *G-Solid rational surfaces*. University of Edinburgh, United Kingdom. Hodge club seminar.




## Attended Conferences

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- Dec. 2021  EDGE 2021, University of Edinburgh, Edinburgh, Scotland.
- May 2022  Spring School of Algebraic Geometry, Université de Bourgogne-Franche-Comté, Dijon, France.
- Jun. 2022  Conference on Birational Geometry, EPFL, Lausanne, Switzerland.
- Aug. 2022  Conference on K-Stability, University of Stony Brook, Stony Brook, New York.
- Nov. 2022  EDGE 2022, University of Edinburgh, Edinburgh, Scotland.
- Jan. 2023  Singularities in Trento, University of Trento, Trento, Italy.
- Jan. 2023  Swiss-French workshop in Algebraic Geometry, Charmey, Switzerland.
- Apr. 2023  Conference on Vertex Algebras, Isle of Skye, Scotland.
- Jul. 2023  GAEL 2023, University of Warwick, Coventry, England.
- Sept. 2023  Conference on K-stability, University of Oxford, Oxford, England.
- Oct. 2023  Conference on higher dimensional geometry, Simons Foundation, New York City, New York.
- Dec. 2023  Seminar on singularities in Algebraic Geometry, University of Nottingham, Nottingham, England.
- Feb. 2024  Swiss-French workshop in Algebraic Geometry, Charmey, Switzerland.
- May 2024  Conference on Algebraic Transformation Groups, Ascona, Switzerland.
- May 2024  Conference on K-stability and moment maps, University of Cambridge, Cambridge, England.
- June 2024  BRIDGES meeting on special geometries and stability, Cargèse, France.

## Teaching

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-  **Algebras and Representation theory.**  
Workshop organiser and Tutor, spring 2023.  
<https://smstc.ac.uk/modules/representation-theory>
-  **Geometry.**  
Tutor, autumn 2023.  
<https://www.drps.ed.ac.uk/15-16/dpt/cxmath10074.htm>
-  **Group Theory.**  
Tutor, autumn 2023.  
<https://www-test.drps.ed.ac.uk/14-15/dpt/cxmath10079.htm>

## Teaching (continued)

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- **Honours Algebra.**  
Tutor, spring 2022 and spring 2023  
<http://www.drps.ed.ac.uk/16-17/dpt/cxmath10069.htm>
  
- **Honours Complex Variables.**  
Tutor, spring 2022 and 2023  
<http://www.drps.ed.ac.uk/16-17/dpt/cxmath10069.htm>
  
- **Numerical Linear Algebra.**  
Tutor, autumn 2022 and 2023  
<http://www.drps.ed.ac.uk/17-18/dpt/cxmath10098.htm>
  
- **Accelerated Algebra and Calculus.**  
Tutor, autumn 2022  
<http://www-test.drps.ed.ac.uk/16-17/dpt/cxmath08062.htm>
  
- **Introduction to Linear Algebra.**  
Tutor, autumn 2022  
<http://www.drps.ed.ac.uk/19-20/dpt/cxmath08057.htm>
  
- **Calculus and its Applications.**  
Tutor, spring 2022  
<http://www.drps.ed.ac.uk/16-17/dpt/cxmath08058.htm>
  
- **Proofs and Problem Solving.**  
Tutor, spring 2023  
<http://www.drps.ed.ac.uk/17-18/dpt/cxmath08059.htm>

## Skills

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- Languages ■ Fluent in French and English.
- Coding ■  $\LaTeX$ , Python, C, Java, HTML, css, Javascript...
- Karate ■ Senior British Champion, second at the french cup, eight times national university champion, fourth Dan in Shotokan karate.

## Reference

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Advisor ■ **Prof. Ivan Cheltsov** [i.cheltsov@ed.ac.uk](mailto:i.cheltsov@ed.ac.uk)