Antoine Pinardin

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🌐 http://www.antoinepinardin.com

Research Interests

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

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

Mar. 2024	🔖	**ICMS grant.** Awarded by the International Center for Mathematical Research for the organisation of an international conference.
June 2024	🔖	**[Sport] 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.

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.

Events I am organising

Oct. 2024	🔖	**ICMS conference on Birational Geometry and Number Theory** An international conference at the intersection of Number theory and Birational Geometry. https://www.icms.org.uk/workshops/2024/birational-geometry-and-number-theory

Research Visits

Dec 2022   **University of Auckland, New Zealand**.
Invited by Dr. Sione Ma'u.

Oct 2023   **Simons foundation, New York City**.
Invited by Prof. Yuri Tschinkel.

Nov-Dec 2023   **University of Aix-Marseille, France**.
On a joint project with Prof. Frédéric Mangolte. Invited for a week.

Nov 2024   **Simons foundation, New York City**
Invited by Prof. Yuri Tschinkel.

Jan-Feb 2024   **Simons foundation, New York City**
Invited by Prof. Yuri Tschinkel.

Mar-Jun 2025   **CIRM, Luminy, France**.
Invited by Prof. Frédéric Mangolte.

Invited Talks

Dec 2023   *G-Solid rational surfaces.* Aix-Marseille University, Marseille, France. Department seminar.

   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.

Sep 2024   *Linearization problem in the plane Cremona group.* Cetraro, Italy. Conference on Fano varieties.

Attended Conferences

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, ICMS, Edinburgh, Scotland.

Jan 2023   Singularities in Trento, University of Trento, Trento, Italy.

   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.

Sep 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 singuarities 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.

   Conference on K-stability and moment maps, University of Cambridge, Cambridge, England.

Attended Conferences (continued)

Jun 2024	🔖	BRIDGES meeting on special geometries and stability, Cargèse, France.
Sep 2024	🔖	Conference on Fano Varieties in Cetraro, Italia.
Oct 2024	🔖	Birational Geometry and Number Theory, ICMS, Edinburgh, Scotland. Organiser of the event.

Teaching

🔖 **Algebras and Representation theory**.
Workshop organiser and Tutor, spring 2023.
https://smstc.ac.uk/modules/representation-theory

🔖 **Geometry**.
Tutor, autumn 2023.
http://www.drps.ed.ac.uk/15-16/dpt/cxmath10074.htm

🔖 **Group Theory**.
Tutor, autumn 2023.
http://www-test.drps.ed.ac.uk/14-15/dpt/cxmath10079.htm

🔖 **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

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.

References

▮ **Prof. Ivan Cheltsov** i.cheltsov@ed.ac.uk

▮ **Prof. Susanna Zimmermann** susanna.zimmermann.saclay@gmail.com

▮ **Prof. Yuri Tschinkel** tschinkel@cims.nyu.edu