

Antoine Pinardin

✉ antoine.pinardin@ed.ac.uk

🌐 <http://antoinepinardin.org/>

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," to appear in *European Journal of Mathematics*, 2024. arXiv: 2309.13757 [math.AG].

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: <i>GIT and hyperkähler structures of the Hilbert Schemes of points on surfaces</i> .
Supervisor : Daniele Faenzi |
| Sep. 2019 – Sept.2020 | 📖 M.Sc. Applied Algebra , University of Paris-Saclay.
Thesis title: <i>Determinants and Resultants in Higher Dimension</i> .
Supervisors : Daniele Faenzi and Ronan Terpereau |

Awards

- | | |
|------------|--|
| Sept. 2021 | 📖 Leverhulme Early Career Fellowship .
Research grant awarded by the Leverhulme Trust. |
|------------|--|

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

- | | |
|----------|---|
| Dec 2023 | 📖 <i>G-Solid rational surfaces</i> . Aix-Marseille University, Marseille, France. Department seminar. |
| | 📖 <i>G-Solid rational surfaces</i> . University of Lille, Lille, France. Department seminar. |







Invited Talks (continued)

- 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.

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, University of Edinburgh, 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.
- 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.

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>

Teaching (continued)

- **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.

Reference

- Advisor ■ **Prof. Ivan Cheltsov** i.cheltsov@ed.ac.uk