

# Sokratis Zikas - Curriculum Vitae

Université de Poitiers, Laboratoire de Mathématiques et Applications  
Bâtiment H3 - Site du Futuroscope, 11 Boulevard Marie et Pierre Curie  
86073 Poitiers Cedex 9, France

Personal website: [www-math.sp2mi.univ-poitiers.fr/~szikas/](http://www-math.sp2mi.univ-poitiers.fr/~szikas/)  
Email: [sokratis.zikas@math.univ-poitiers.fr](mailto:sokratis.zikas@math.univ-poitiers.fr)

## Personal Information

---

Date of Birth: July 1, 1993  
Place of Birth: Kerkyra, Greece  
Place of Residence: Poitiers, France  
Citizenship: Greek

## Academic Career

---

09/2022 - present **Post-doc**, University of Poitiers, France  
09/2018 - 08/2022 **Ph.D in Mathematics**, University of Basel, Switzerland  
Thesis title: *Birational transformations of threefolds*  
under the supervision of Prof. Jérémy Blanc [↗](#).  
09/2016 - 07/2018 **M.Sc in Mathematics**, University of Ioannina, Greece  
Specialization: Mathematics (Analysis - Algebra - Geometry)  
Thesis title: *Birational Geometry of Algebraic Surfaces*  
under the supervision of Prof. Stavros Papadakis [↗](#).  
09/2011 - 08/2016 **B.Sc in Mathematics**, University of Ioannina, Greece.

## Visiting Positions

---

02/2024 **Visiting Researcher**, IMPA institute, Rio de Janeiro, Brazil  
Host: Carolina Araujo

## Research Interests

---

*Birational Geometry, Groups of birational transformations, Terminal extractions, Group actions on varieties*

## Language Skills

---

*Greek (native), English (C2), German (B2), French (beginner)*

## Institutional Responsibilities

---

### Teaching Activities:

Spring 2022	<i>Transformation groups</i>	Spring 2020	<i>Group Cohomology</i>
Winter 2021	<i>Linear Algebra I</i>	Winter 2019	<i>Linear Algebra I</i>
Spring 2021	<i>Differential Geometry</i>	Spring 2019	<i>Linear Algebra II</i>
Winter 2020	<i>Algebraic Geometry I</i>	Winter 2018	<i>Linear Algebra I</i>

### Working Groups Organized:

Winter 2023	<i>“The Kawamata-Morrison cone conjecture for surfaces”</i>
Spring 2023	<i>“Hilbert Schemes of Lines and Conics of Fano 3-folds”</i>
Spring 2022	<i>“Moduli Spaces and GIT”</i>
Winter 2021	<i>“Groups acting on varieties”</i>
Spring 2020	<i>“The Sarkisov Program (cont.)”</i>
Winter 2019	<i>“Intersection Theory”</i>
Spring 2019	<i>“The Sarkisov Program”</i>

## Research Output

---

### Publications and Preprints:

- “Umemura Quadric Fibrations and Maximal Subgroups of  $\mathrm{Cr}_n(\mathbb{C})$ ”, 2024  
(joint with Enrica Floris, [arXiv:2402.05021](#))
- “Sarkisov Links with centres space curves on smooth cubic surfaces”, 2023  
(in Publicacions Matemàtiques [↗](#), [arXiv:2012.04049](#))
- “Rigid birational involutions of  $\mathbb{P}^3$  and cubic threefolds”, 2023  
(in Journal de l'École Polytechnique [↗](#), [arXiv:2111.04711](#))
- “Connected algebraic subgroups not lying in a maximal one”, 2022  
(joint with Pascal Fong, in Comptes Rendus Mathématique [↗](#), [arXiv:2201.09682](#))

### In preparation:

- “On terminal weighted blowups of projective space”  
(joint with Tiago Duarte Guerreiro and Erik Paemurru)
- “On Guizatulin’s Problem for Quartics of Picard rank 2”  
(joint with Carolina Araujo and Daniela Paiva)

## Research Funding

---

### “Cremona groups of higher rank via the Sarkisov program”

Funding of CHF104'000 by the Swiss National Science Foundation, 2022-2024, Grant nr P500PT\_211018

## Dissemination

---

### Selected talks:

- June 2023 **AGGITatE 2023**, *Equivariant geometry of quadric bundles and maximal subgroups of Cremona groups*, University of Essex, Colchester, UK [↗](#).
- Mar 2023 **ANR FRACASSO - Workshop in Bordeaux**, *Unbounded connected algebraic subgroups of  $\text{Bir}(C \times \mathbb{P}^n)$* , Institute de Mathématiques de Bordeaux, Bordeaux, France [↗](#).
- Mar 2022 **ANR FIBALGA - Workshop in Poitiers**, *Rigid birational involutions of  $\mathbb{P}^3$* , Laboratoire de Mathématiques et Applications, Université de Poitiers, France [↗](#).
- Jan 2022 **ANR FanoHK - Thematic workshop in Dijon**, *Rigid birational involutions of projective 3-space and cubic 3-folds*, Institut de Mathématiques de Bourgogne, Dijon, France [↗](#).

### Seminars:

- Oct 2023 **Séminaire de Géométrie Complexe**, *Equivariant geometry of quadric bundles and maximal subgroups of Cremona groups*, Institut de Mathématiques de Toulouse, France [↗](#).
- Apr 2022 **Oberseminar Algebraische Geometrie, Saarbrücken**, *Rigid birational involutions of  $\mathbb{P}^3$  and cubic 3-folds*, Universität des Saarlandes, Germany [↗](#).
- Nov 2021 **Basel-Dijon-EPFL Seminar**, *Rigid birational involutions of  $\mathbb{P}^3$* , University of Basel, Switzerland [↗](#).