

Sokratis Zikas - Curriculum Vitae

IMPA - Instituto de Matemática Pura e Aplicada
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Personal Information

Date of Birth: July 1, 1993
Place of Birth: Kerkyra, Greece
Place of Residence: Rio de Janeiro, Brazil
Citizenship: Greek

Academic Career

08/2024 - present **Post-doc**, IMPA, Brazil
09/2022 - 08/2024 **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. J  r  my 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, Mori Dream Spaces, K3 Surfaces, Terminal extractions, Group actions on varieties

Language Skills

Greek (native), English (C2), German (B2), Portuguese (B1), French (beginner)

Institutional Responsibilities

Teaching Activities:

Spring 2025	Algebraic surfaces and the Sarkisov Program (notes)	
Spring 2022	<i>Transformation groups</i>	Spring 2020 <i>Group Cohomology</i>
Winter 2021	<i>Linear Algebra I</i>	Winter 2021 <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:

- “On Mori dreamness of blowups along space curves”, 2025
(joint with T. Duarte Guerreiro, [arXiv:2509.10148](#))
- “On Gizatullin’s problem for quartic surfaces of Picard rank 2”, 2024
(joint with C. Araujo and D. Paiva, to appear in [Algebraic Geometry](#), [arXiv:2410.08415](#))
- “Umemura Quadric Fibrations and Maximal Subgroups of $\mathrm{Cr}_n(\mathbb{C})$ ”, 2024
(joint with E. Floris, to appear in [Documenta Mathematica](#), [arXiv:2402.05021](#))
- “Connected algebraic subgroups not lying in a maximal one”, 2022
(joint with P. Fong, in [Comptes Rendus Mathématique](#), [arXiv:2201.09682](#))
- “Rigid birational involutions of \mathbb{P}^3 and cubic threefolds”, 2021
(in [Journal de l’École Polytechnique](#), [arXiv:2111.04711](#))
- “Sarkisov Links with centres space curves on smooth cubic surfaces”, 2020
(in [Publicacions Matemàtiques](#), [arXiv:2012.04049](#))

Research Funding

“Cremona groups of higher rank via the Sarkisov program”

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Dissemination

Selected talks:

- May 2025 **Groups, Arithmetic & Algebraic Geometry Seminar**, *On Mori dreamness of blowups along space curves*, EPFL, Switzerland [↗](#).
- Feb 2024 **Seminário de Álgebra**, *On maximal connected algebraic subgroups of groups of birational transformations*, IMPA, Brazil [↗](#).
- Oct 2023 **Séminaire de Géométrie Complexe**, *Equivariant geometry of quadric bundles and maximal subgroups of Cremona groups*, Institut de Mathématiques de Toulouse, France [↗](#).
- Jun 2023 **AGGITatE 2023**, *Equivariant geometry of quadric bundles and maximal subgroups of Cremona groups*, University of Essex, UK [↗](#).
- Mar 2023 **ANR FRACASSO - Workshop in Bordeaux**, *Unbounded connected algebraic subgroups of $\text{Bir}(C \times \mathbb{P}^n)$* , Institut de Mathématiques de 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, France [↗](#).