# Daniela Paiva Peñuela

## Curriculum Vitae

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Colombian Citinzenship

### Education

2021-present Instituto de Matemática Pura e Aplicada -IMPA, Rio de Janeiro, Brazil.

Ph.D. candidate in Mathematics Advisor: Prof. Carolina Araujo

2019-2021 Instituto de Matemática Pura e Aplicada -IMPA, Rio de Janeiro, Brazil.

M.Sc. in Mathematics

2014–2018 Universidad del Tolima, Ibagué, Colombia.

B.Sc. in Mathematics (Graduated with Honors)

#### Articles

- 2024 **On Gizatullin's problem for quartics of Picard rank 2**, *Joint Carolina Araujo and Sokratis Zikas*, In preparation.
- 2023 **Automorphisms of quartic surfaces and Cremona transformations**, *Joint Ana Quedo*, arXiv:2302.09014, Preprint.

#### Talks

03/2024 Liberdade em Geometria Algébrica - LEGAL, Universidade Federal Fluminense - UFF, Teresópolis, Brazil.

Gizatullin's Problem and the Sarkisov Program

12/2023 **8th Iberoamerican Congress on Geometry**, *Geometry at the Frontier Research Center*, Pucón, Chile.

Automorphisms of quartic surfaces with Picard number two and Cremona transformations

07/2023 **Universidad de Antioquia - UdeA**, *Seminario de Álgebra, Geometría y Topología*, Medellín, Colombia.

Superficies K3 y Teoria de Reticulados

- 07/2023 **Universidad del Tolima UT**, *Seminario de Álgebra*, Ibagué, Colombia. *Introducción a la Geometría Algebraica y Superficies K3*
- 02/2023 **Around Symmetries of K3 Surfaces**, Banff International Research Station for Mathematical Innovation and Discovery BIRS, Banff, Canada.

  Automorphisms of quartic surfaces and Cremona transformations
- 02/2023 **15th Commutative Algebra and Algebraic Geometry, ALGA**, *IMPA*, Rio de Janeiro, Brazil.

Automorphisms of quartic surfaces and Cremona transformations

12/2022 **Workshop Geometry at the Frontier III 1/2**, *Geometry at the Frontier Research Center*, Pucón, Chile.

A new example for Gizatullin's problem

11/2021 Instituto de Matemática Pura e Aplicada - IMPA, Student Algebraic Geometry Seminar (online).

The Cremona group

10/2021 **Universidad del Tolima(Colombia)**, Faculty Week Celebration - Science Faculty (online). On the Cremona group

#### Grants

- 2021-2025 Ph.D. fellowship, CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior).
- 2019-2021 **Master degree fellowship**, CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico).

## Organization of seminars and conferences

- 2022-present Coloquio dos Alunos. IMPA, Rio de Janeiro, Brazil.
  - 2023 3º Encontro de Mulheres Matemáticas do IMPA EMMI. IMPA, Rio de Janeiro, Brazil.
  - 2022 2º Encontro de Mulheres Matemáticas do IMPA EMMI. IMPA, Rio de Janeiro, Brazil.
  - 2021 1º Encontro de Mulheres Matemáticas do IMPA EMMI. IMPA (Online).

## Selected Participation in Conferences

- 2022 School of the Doctoral Program in Mathematics of the UdeC. Universidad de Concepción. Concepción, Chile (Online).
- 2022 AGRA IV (Arithmetic, Groups and Analysis) Part 2. Cabo Frio, Brazil.
- 2022 Latin American and Caribbean Workshop on Mathematics and Gender. Casa Matematica Oaxaca, Mexico. (Online).
- 2021 XXXIII Brazilian Colloquium of Mathematics. IMPA. Rio de Janeiro, Brazil.(Online)
- 2019 1st Joint Meeting Brazil-France in Mathematics. IMPA. Rio de Janeiro, Brazil.
- 2019 XXXII Brazilian Colloquium of Mathematics. IMPA. Rio de Janeiro, Brazil.
- 2019 Brazilian Meeting of Women Mathematicians. IMPA. Rio de Janeiro, Brazil.
- 2018 IV Regional Seminar on Number Theory. On untouchable numbers and their properties. Universidad del Cauca. Popayán, Colombia.

## Teaching Experience

- 2018 Teaching Assistant of Prof. Carolina Perdomo, *Fundamental Mathematics*. Universidad del Tolima.
- 2016-2017 Teaching Assistant of Prof. Leonardo Duvan Restrepo, *Univariate Calculus*. Universidad del Tolima.

## Languages

Spanish Native

Portuguese Fluent

English Upper-Intermediate

Interests

Mathematical Algebraic and Birational Geometry: Cremona group, Sarkisov program, K3 surfaces.

Other Social work, volleyball, mountain biking.