

# Kevin Alves Vasconcellos

## *Curriculum Vitae*

### Personal details and contact

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- **Nationality:** Brazilian
- **Birth date:** January 11, 1995
- **Email:** [kevin.vasconcellos@im.ufrj.br](mailto:kevin.vasconcellos@im.ufrj.br)
- **Lattes curriculum:** <http://lattes.cnpq.br/7694301808539887>
- **Homepage:** <http://www.im.ufrj.br/alunos/kevinvasconcellos>

### Research interests

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- **Commutative Algebra:** Residual Intersection Theory and Koszul-Fitting Ideals

### Education

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- **Philosophy Doctor in Mathematics**, Federal University of Rio de Janeiro 2020 — 2024  
**Director:** [S. Hamid Hassanzadeh](#)  
**Thesis:** [Deformation of Residual Intersections](#)
- **Master of Science in Mathematics**, Federal University of Rio de Janeiro 2018 — 2020  
**Director:** [S. Hamid Hassanzadeh](#)  
**Dissertation:** [Uma Fórmula para Core de um Ideal](#)
- **Bachelor of Sciences in Engineering**, State University of Northern Fluminense 2013 — 2018  
**Director:** [José Nilson França de Holanda](#)  
**GPA:** 3.6
- **Associate Degree in Chemistry**, Fluminense Federal Institute 2011 — 2012  
**GPA:** 3.7

### Publications

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#### Published

- Data Assimilation in A Class of Environmental Disasters: Mathematical Aspects. [Open access](#)  
Published in [Earth Science Research](#), with P. S. D Da Silva.
- Evaluation of the Densification Behavior of Clay Brick Body Bearing Coffee Grounds Waste.  
Chapter of the book [The Fundamentals of Brick Manufacturing](#), Nova Science Publishers with J. N. F. Holanda and others.

## Preprints

- Deformation of Residual Intersections arXiv:2405.12170  
Available in [arXiv](#), with H. Hassanzadeh
- The Dual  $F$ -Signature of Veronese Rings arXiv:2405.02542  
Available in [arXiv](#), with V. Bouca and E. Tolosa-Villareal

## Participation in defense committee

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### Undergraduate defense

- GUILLERMO, L. H; **VASCONCELLOS, K. A**; BEGGIO, P.C; JARA, R. A.O. Participation in the **Ádina Ferreira Carvalho**'s defense committee: *A topologia de superfícies: uma noção intuitiva e seu uso como recurso pedagógico*, 2021, Universidade Estadual do Norte Fluminense Darcy Ribeiro

## Grants

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- **Petrobras** 2024  
Approved on the Public Selection Process of [Petrobras](#) for the Chemist position
- **Grade 10 FAPERJ PhD fellowship** 2023 — 2024  
FAPERJ: Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro  
Rejected due to its durability
- **PhD fellowship** 2020 — 2024  
CAPES: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior  
Process: 88887.509372/2020-00
- **Master fellowship** 2018 — 2020  
CNPq: Conselho Nacional de Desenvolvimento Científico e Tecnológico
- Fourth highest score in the **Prova Extramuros** 2017  
National exam for access to Graduate Programs in Mathematics at the top Universities in Brazil

## Participation in events

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### Invited talks

- **Residual Intersections and Kitt deformation.** September 2024  
V Brazilian Congress of Youth Reseachers in Pure and Applied Mathematics and Statistics, UFMG
- **A quick tour in the theory of  $F$ -regular rings.** October 2023  
Algebra Forum, UFRJ

### Poster presentation

- **Residual Intersections and Kitt Ideals.** Freedom in Algebraic Geometry 2024, March 2024

### Participant

- **V Brazilian Congress of Youth Reseachers in Pure and Applied Mathematics and Statistics**  
UFMG, Belo Horizonte, Brazil 2024
- **Freedom in Algebraic Geometry 2024**, UFF, Teresópolis, Brazil 2024
- **34° Brazilian Mathematics Colloquium**, IMPA, Rio de Janeiro, Brazil 2023
- **Pragmatic 2023: Cohomology and Frobenius**, Università degli Studi di Catania, Catania, Italy 2023
- **Celebrating Women in Mathematics**, UFRJ, Rio de Janeiro, Brazil 2022
- **33° Brazilian Mathematics Colloquium**, IMPA, Rio de Janeiro, Brazil 2021
- **Celebrating Women in Mathematics**, UFRJ, Rio de Janeiro, Brazil 2021
- **CIMPA School: Syzygies, from theory to applications**, UFPB, João Pessoa, Brazil 2019
- **32° Brazilian Mathematics Colloquium**, IMPA, Rio de Janeiro, Brazil 2019

## Teaching

### Assistant Professor

- **An introduction to algebraic geometry**, Federal University of Rio de Janeiro 1° semester, 2022
- **Advanced linear algebra**, Federal University of Rio de Janeiro 1° semester, 2022
- **Linear algebra III**, Federal University of Rio de Janeiro 2° semester, 2019

## Professional Experience

- Chemist analyst at Petrobras November 2024 — Currently

## Languages

**English** Comprehends reasonably, speaks reasonably, reads well, writes well

**Spanish** Comprehends reasonably, speaks reasonably, reads reasonably, writes Reasonably

**Portuguese** Native

## Programming

- Macaulay2
- L<sup>A</sup>T<sub>E</sub>X

## Complementary Education

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- **High School**

2010 — 2012

Fluminense Federal Institute

**GPA:** 3.8

## Hobbies

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- **Mathematics:** I enjoy delving into Mathematics beyond Commutative Algebra, particularly finding fascination in areas such as Topology and Algebraic Geometry
- **Pokémon:** Playing Pokémon games, especially Pokémon Go, is my favorite hobby. At present, I have registered 858 Pokémon on my Pokédex