

# JOÃO LOBO FERNANDES

Karlsruhe Institute of Technology, Institute of Algebra and Geometry, Englerstr. 2, 76131 Karlsruhe  
(+351) 925344811 ◊ joao.fernandes@kit.edu

## EDUCATION

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### Karlsruhe Institute of Technology, Germany

*From April 2023 to Present*

Ph.D. in Mathematics, part of the joint research training group RTG 2229 "Asymptotic Invariants and Limits of Groups and Spaces" from Heidelberg University and Karlsruhe Institute of Technology  
Supervised by JProf. Dr. Manuel Krannich (manuel.krannich@kit.edu)

### University of Copenhagen, Denmark

*September 2020- July 2022*

M.Sc. in Mathematics

Thesis: *Embedding calculus: a study of convergence and finiteness properties of the Goodwillie tower.*

Supervised by Prof. Dr. Soren Galatius (galatius@math.ku.dk)

Overall Grade Average: A

### University of Coimbra, Portugal

*September 2017-July 2020*

B.S. in Mathematics

Overall Grade Average: 18/20

### Roskilde University, Denmark

*September 2018-January 2019*

Guest student at Mathematics Department

Completed the courses Geometry with grade 15/20 (<http://study.ruc.dk/class/view/14337>) and Differential equations and Dynamical systems with grade "Passed"(<http://study.ruc.dk/class/view/14413>)

## TEACHING AND ACADEMIC EXPERIENCE

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### Teaching Assistant position

IT-University of Copenhagen

*August 2021 - December 2021*

- Teaching in the one-semester course "Study Lab in Data Science" taught in English aimed at students in Master in Data Science.
- The course involved mathematics support tailored to the students needs focused on Probability and Statistics, Linear Algebra, Calculus and Optimization.

### Research Scholarship

*October 2019 - July 2020*

- Grant from national program "Novos Talentos em Matematica" from the Calouste Gulbenkian Foundation.
- One year research project on Topological Quandles working with Professor Antonio Salgueiro, Mathematics Department of the University of Coimbra .

## TALKS AND SEMINARS

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### Synthetic Spectra I

University of Copenhagen

*January 2022*

- Expository seminar as evaluation for the M.Sc. course "Topics in Algebraic Topology".

### Homotopia de Quandles Topológicos

"Novos Talentos em Matemática" Annual Meeting

*July 2020*

- Online talk (in Portuguese) reporting on the results achieved during the scholarship.

## OTHER ACADEMIC ATIVITIES

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### Twinned Conference on Homotopy Theory with Applications to Arithmetic and Geometry

Max Planck

Institute, Bonn

*27 June - 30 June 2022*

- Participation.

- Conference website: <https://www.mpim-bonn.mpg.de/node/10868>

**Masterclass on Homology and Homotopy of Configuration Spaces**

University of Copenhagen

15 Nov - 19 Nov 2021

- Attendance and participation on the problem sessions.
- Masterclass website: <https://www.math.ku.dk/english/calendar/events/hhcs/>.

**Masterclass on High dimensional cohomology of moduli spaces**

University of Copenhagen

28 June - 2 July 2021

- Attendance and participation on the problem sessions.
- Masterclass website: <https://www.math.ku.dk/english/calendar/events/hdcms/>.

**Mathematics Students Association of University of Coimbra**

October 2018 - October 2019

*Working in Scientific Education and Formation*

- Organizing scientific talks and lectures aimed at Undergraduate and Graduate students.
- Organizing *InforMat* - lecture series on future careers for Mathematics students.

**"Novos Talentos em Matematica" Summer School on Differential Geometry**

Lisbon, July 23 to 27, 2018

- Participation.
- Summer School website: <https://www.math.tecnico.ulisboa.pt/~ggranja/Talentos/school2018/>.

## AWARDS

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- *Top 3 Percent Student Award* from the University of Coimbra in the year 2019/2020.

## LANGUAGE SKILLS

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- Portuguese (mother tongue)
- English - Level C2
- Danish - Level A2 in 2021

## HOBBIES

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I am an active badminton player playing at *Elite* level in Portugal representing Associação Académica de Coimbra since 2012 and *Sen A* level in Denmark representing Kastrup Magleby Badminton Klub since 2020. I have played in various national and international tournaments and have been selected to the Portuguese Junior National team in 2017.