

# Jorge António

## Employment

- 2019-Present **Université de Strasbourg**, *Post-doctoral researcher*.  
2016-2019 **IMT, Université Paul Sabatier**, *Doctoral Student/Teaching Assistant*.

## Education

- 2016-2019 **IMT, Université Paul Sabatier**, *Ph.D. in Mathematics*, Defended on June 28th, 2019.  
Thesis: *Modèles intègres dérivés et ses applications à l'étude de certains espaces des modules rigides analytiques dérivés*, Advisor: Bertrand Toën
- 2014-2016 **Université Pierre et Marie Curie**, *M.Sc. in Mathematics, Mention très bien*.  
Thesis: *Tamagawa Conjecture for number fields*, Advisor: Dennis Gaitsgory
- 2011-2014 **Instituto Superior Técnico, Lisbon**, *Bachelor of Science in Mathematics, GPA: 19/20*.  
Thesis: *Two dimensional TQFTs*, Advisor: Gustavo Granja

## (Pre)-Publications

1. "The moduli of  $\ell$ -adic representations of a profinite group".  
<https://arxiv.org/abs/1709.04275>, Submitted [51 pages]
2. "Derived  $\mathcal{O}_k$ -adic geometry and derived Raynaud localization theorem".  
<https://arxiv.org/abs/1805.03302>, Submitted [40 pages]
3. "Moduli of  $\ell$ -adic pro-étale local systems for smooth non-proper schemes".  
<https://arxiv.org/abs/1904.08001>, [22 pages]
4. "Derived Non-archimedean analytic Hilbert space", with M. Porta  
Accepted at Journal of the Institute of Mathematics of Jussieu. <https://arxiv.org/abs/1906.07044>,  
Submitted [28 pages]
5. "Analytic HKR theorem" with F. Petit and M. Porta  
In preparation.
6. "A localization theorem for perfect complexes in non-archimedean geometry" with M. Porta and G. Vezzosi  
In preparation.
7. "Koszul duality for unbounded Noetherian algebras"  
In preparation.
8. "Spreading of the Hodge filtration in non-archimedean geometry"  
In preparation.

## Grants and Fellowships

- 2019-2021: Post-doctoral fellowship.
  - Awarded by IRMA Labex, Université de Strasbourg.

- 2016-2018: Ph.D. fellowship.
  - Awarded by CIMI Labex, IMT Toulouse, Université Paul Sabatier.
- 2014-2016: Paris Graduate School of Mathematical Sciences
  - Awarded by Sciences Mathématiques de Paris Foundation to pursue the M.Sc. studies in Paris.
- 2013-2014: "Novos Talentos em Matemática", Instituto Superior Técnico.
  - Research fellowship for best undergraduate students in the country. Supervisor: Pedro Ferreira dos Santos.
- 2012-2013: "Novos Talentos em Matemática", Instituto Superior Técnico.
  - Research fellowship for best undergraduate students in the country. Supervisor: João Pimentel Nunes.

## Invited Speaker at research talks

- Séminaire de géométrie algébrique, Université d'Angers (April, 2020)
- Séminaire de géométrie arithmétique, Université de Strasbourg (November, 2019)
- SFB Higher Invariants, Universität Regensburg (November, 2019)
- Seminário de Álgebra, Instituto Superior Técnico, Lisboa (October 2019)
- Séminaire de géométrie arithmétique de Rennes, Université de Rennes (October, 2019)
- SFB Higher Invariants, Universität Regensburg (July, 2019)
- Séminaire ALPE, séminaire conjoint IMAG Montpellier-IMT Toulouse (April 2019)
- Séminaire Groupes Réductifs et formes automorphes, Université Paris-Diderot (December 2018)
- Séminaire de géométrie arithmétique, Université de Strasbourg (April 2018)
- Séminaire de Topologie Algébrique, Université Paris 13 (December 2017)
- Seminario di geometria algebrica, Università degli Studi di Milano (November 2017)
- Séminaire d'algèbre, topologie et géométrie, Université Sophia Antipolis (October 2017)
- Summer school "Novos Talentos em Matemática", Calouste Gulbenkian Foundation (July 2013)

## Attended conferences and programs

- IMJ summer school, *New perspectives in Gromov-Witten theory*, Université Pierre et Marie Curie, Paris (June, 2019).
- MSRI, program in *Derived algebraic geometry*, Berkeley, USA (March-April, 2019).
- CATS5, *Derived algebraic geometry and interactions* Summer school and Conference, Lisbon (September 2018).
- Yuri Manin Birthday Conference, Max Planck, Bonn (June 2017).
- Workshop, *Stable homotopy theory and  $p$ -adic Hodge-theory*, University of Copenhagen (June 2017).
- IMT Toulouse summer school, *New perspectives on derived algebraic geometry*, IMT Toulouse Université Paul Sabatier (June 2017).
- Arizon Winter School, *Perfectoid Spaces*, Tucson, USA (March 2017).
- Conference at IHES, Professor Ogus Birthday conference, IHES, Paris (October 2015).
- Cours d'Arithmétique et de Géométrie Algébrique at IHES, *Singular support of coherent sheaves*, Paris (June 2015).
- Novos talentos em Matemática Summer school, *Algebraic geometry*, Lisbon (July 2014).
- Novos talentos em Matemática Summer school, *Representation theory*, Lisbon (July 2013).
- Novos talentos em Matemática Summer school, *Combinatorics*, Lisbon (July 2012).
- Novos talentos em Matemática Summer school, *Number theory*, Lisbon (July 2011).
- Projecto Delfos, *Mathematical Olympiad Training Program*, University of Coimbra, 2010-2011.

## Teaching Experience

- Winter 2019: Cours de TD *Calcul différentiel et intégral*, at Université Paul Sabatier
- Spring 2018: Cours de TD *Algèbre linéaire*, at Université Paul Sabatier

- Winter 2018: Cours de TD *Calcul différentiel et intégral*, at Université Paul Sabatier
- Spring 2017: Cours théorique et TD *Algèbre linéaire*, at Université Paul Sabatier
- Spring 2017: Cours de TP *Analyse numérique et programmation en Python*, at Université Paul Sabatier
- Winter 2017: Cours de TD *Calcul différentiel et intégral*, at Université Paul Sabatier

## Awards

- Jaime Campos Ferreira Prize for the best student at Instituto Superior Técnico in 2014.
- Ibero-American Mathematical Olympiads for undergraduates: Bronze medal, 2012.

## Referee Service

- Compositio Mathematica.

## Miscellaneous

- Groupe de travail autour de la "Cohomologie Prismatique" at IRMA Strasbourg, Spring 2010.
- Groupe de travail autour de la "Cohomologie Elliptique" at IMT Toulouse, (co-organizer) Winter 2018.
- Groupe de travail autour du livre "Higher Algebra" at IMT Toulouse, (co-organizer) Spring 2018.
- Groupe de travail autour du papier "On topological cyclic homology" at IMT Toulouse, (organizer) Spring 2018.

## Languages

- Portuguese - Native.
- English - Fluent.
- French - Fluent.
- Spanish - Fluent.
- Italian - Advance reading & basic conversation skills.