

# Tommaso Scognamiglio

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## Research interests

My research interests revolve around the interactions between representation theory, combinatorics and the computation of the cohomology of moduli spaces such as, for instance, quiver varieties, character varieties and moduli spaces of Higgs bundles.

## Education

2020– **PhD in Mathematics**, *Université Paris Cité-IMJ PRG*, under the supervision of Emmanuel Letellier

2017–2019 **Master in Mathematics**, *Università di Pisa- Scuola Normale Superiore, Pisa, Italy.*

2015-2017 **Bachelor in Mathematics**, *Università di Pisa- Scuola Normale Superiore, Pisa, Italy.*

## Preprints and publications

2022 **T. Scognamiglio**, *On the cohomology of character stacks for non-orientable surfaces*, *Geometriae Dedicata*, **218**, 13 (2024) .

2023 **T. Scognamiglio**, *A generalization of Kac polynomials and tensor product of representation of  $GL_n(\mathbb{F}_q)$* , *Transformation groups*, (2024.)

2023 **T. Scognamiglio**, *Cohomology of non-generic character stacks*, arxiv :2310.01306.

## Talks

02/2023 **Geometry Seminar**, *Università di Firenze*, Character varieties for non-orientable surfaces.

04/2023 **Differential Geometry Seminar**, *Heidelberg University*, Character varieties for non-orientable surfaces.

01/2024 **Algebra and Geometry seminar**, *University of Bologna*, Character stacks and varieties for Riemann surfaces.

01/2024 **Groups, Representations and Geometry seminar**, *IMJ-PRG*, Character stacks and varieties for Riemann surfaces.

01/2024 **PhD preprint seminar**, *Université Paris Cité*, Representations of quivers and finite general linear groups.

## Research visits

04/2023 **Heidelberg University**, Invited by Florent Schaffhauser.

## Teaching experience

2023-2024 **Groups and Arithmetics**, for second year students in Informatics, Université Paris Cité.

- 2023-2024 **Elementary analysis and algebra**, for first year students in Physics, Université Paris Cité.
- 2023-2024 **Algebra**, for third year students in Mathematics, Université Paris Cité.
- 2023-2024 **Analysis**, for second year students in Mathematics, Université Paris Cité.
- 2022-2023 **Analysis**, for second year students in Mathematics, Université Paris Cité.
- 2021-2022 **Analysis**, for third year students in Engineering, Université Paris Cité.