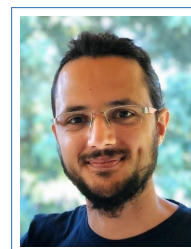


# Salim Rostam

*Maître de conférences*

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🌐 [idpoisson.fr/rostam/en](https://idpoisson.fr/rostam/en)  
arXiv: [rostam\\_s\\_1](https://arxiv.org/abs/rostam_s_1)  
HAL: [salim-rostam](https://hal.archives-ouvertes.fr/salim-rostam)



## Positions

- 2023– **Maître de conférences** (*lecturer*), *Université de Tours*
- 2018–2023 **Agrégé-préparateur**, *École normale supérieure de Rennes*

## Diplomas

- 2018 **Ph.D.**, *Université de Versailles Saint-Quentin-en-Yvelines*, Laboratoire de mathématiques de Versailles, under the supervision of Maria Chlouveraki (UVSQ) and Nicolas Jacon (Université de Reims Champagne–Ardenne)  
Title: Quiver Hecke algebras and generalisations of Iwahori–Hecke algebras
- 2015 **Master’s degree**, first class Honours, University of Rennes 1 (France)
- 2014 **Ranked 6th at “agrégation” of mathematics**  
[French competitive exam to teach in high schools]
- 2012 **Admission to the ENS Cachan**  
**Bachelor’s degree**, first class Honours, University of Rennes 1 (France)  
**TOEIC**, 875 points
- 2009 **Level B2 in German**, *Goethe-Institut*, equivalent to CLES 2

## Publications

- 2023 **Identifying Young diagrams among residue multisets**, *Annals of Combinatorics*  
DOI : [10.1007/s00026-023-00641-7](https://doi.org/10.1007/s00026-023-00641-7), HAL: [03030397](https://hal.archives-ouvertes.fr/03030397), arXiv : [2011.13872](https://arxiv.org/abs/2011.13872)  
**Skew cellularity of the Hecke algebras of type  $G(\ell, p, n)$** , with Jun Hu and Andrew Mathas, *Representation Theory* **27** 508–573 (2023)  
DOI : [10.1090/ert/646](https://doi.org/10.1090/ert/646), HAL : [03268869](https://hal.archives-ouvertes.fr/03268869), arXiv : [2106.11459](https://arxiv.org/abs/2106.11459)  
**Core size of a random partition for the Plancherel measure**, *Annales de l’IHP, série B (Probabilités et Statistiques)* **59**(4) 2151–2188 (2023)  
DOI : [10.1214/22-AIHP1310](https://doi.org/10.1214/22-AIHP1310), HAL : [03426306](https://hal.archives-ouvertes.fr/03426306), arXiv : [2111.05970](https://arxiv.org/abs/2111.05970)
- 2021 **Morita equivalences for cyclotomic Hecke algebras of type B and D**, with L. Poulain d’Andecy, *Bulletin de la SMF* **149**(1) 179–233 (2021)  
DOI : [10.24033/bsmf.2828](https://doi.org/10.24033/bsmf.2828), HAL : [02104136](https://hal.archives-ouvertes.fr/02104136), arXiv : [1903.01580](https://arxiv.org/abs/1903.01580)
- 2019 **Stuttering blocks of Ariki–Koike algebras**, *Algebraic Combinatorics* **2** no. 1 75–118 (2019)  
DOI : [10.5802/alco.40](https://doi.org/10.5802/alco.40), HAL : [01794943](https://hal.archives-ouvertes.fr/01794943), arXiv : [1711.10347](https://arxiv.org/abs/1711.10347)

**Cyclotomic quiver Hecke algebras and Hecke algebra of  $G(r, p, n)$** , *Transactions of the AMS* **371** no. 6 3877–3916 (2019)

DOI : [10.1090/tran/7485](https://doi.org/10.1090/tran/7485), HAL : [01794939](https://hal.archives-ouvertes.fr/01794939), arXiv : [1609.08908](https://arxiv.org/abs/1609.08908)

2017 **Cyclotomic Yokonuma–Hecke algebras are cyclotomic quiver Hecke algebras**, *Advances in Mathematics* **311** 662–729 (2017)

DOI : [10.1016/j.aim.2017.03.004](https://doi.org/10.1016/j.aim.2017.03.004), HAL : [01628497](https://hal.archives-ouvertes.fr/01628497), arXiv : [1603.03901](https://arxiv.org/abs/1603.03901)

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## Preprint

2023 **Limit shape for regularisation of large partitions under the Plancherel measure**

HAL : [03990469](https://hal.archives-ouvertes.fr/03990469), arXiv : [2302.07115](https://arxiv.org/abs/2302.07115)

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## PhD

2018 **Quiver Hecke algebras and generalisations of Iwahori–Hecke algebras**, 173 pages, TEL : [01954325](https://tel.archives-ouvertes.fr/01954325)

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## Funding

2024 **PEPS JCJC Project**, 4000€, funding for young researchers)

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## Invited speaker

2022 **Size of the core of partitions under the Plancherel measure**, *Probability and statistics seminar*, LMV, Versailles, 1h

**Size of the core of partitions under the Plancherel measure**, *Probability seminar*, IRMAR, 1h

2019 **Cellularité de l’algèbre de Hecke de  $G(r, p, n)$** , *Séminaire GRAP*, LAFMA, Amiens, 1h

**Cellularité de l’algèbre de Hecke de  $G(r, p, n)$** , *Colloque tournant du GDR TLAG*, LMA Poitiers, 50 min

2018 **Quelques aspects combinatoires de la théorie des représentations des algèbres de Hecke**, *Annual opening conference day of the doctoral school*, IHES, 50 min

2017 **A quiver Hecke-like presentation for the Hecke algebra of  $G(r, p, n)$** , *Algebra seminar*, University of Sydney, 1h

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## Other talks (selected)

### In conferences

2023 **Constructing Young diagrams (with rectangles via regular partitions)**, *Workshop ANR CORTIPOM*, CIRM, 1h

**Skew cellularity of the Hecke algebras of complex reflection groups**, *Applications of Hecke and related algebras: Representations, Integrability and Physics*, École de Physique des Houches, 30 min

2022 **Core size of large partitions under the Plancherel measure**, *Séminaire Lotharingien de Combinatoire (SLC 87)*, Saint-Paul-en-Jarez, 25 min

- 2021 **Skew cellularity of the Hecke algebra of  $G(r, p, n)$** , *Combinatorics and Representation Theory in Lausanne (CoRepTiL)*, 30 min
- 2019 **Stuttering multipartitions and blocks of Ariki–Koike algebras**, *Séminaire Lotharingien de Combinatoire*, Curia (Portugal), 30 min
- 2018 **Stuttering multipartitions and blocks of Ariki–Koike algebras**, *Representations in Lie Theory and Interactions*, CIRM, 30 min
- Stuttering multipartitions and blocks of Ariki–Koike algebras**, *Groups and Algebras in Bicocca for Young Algebraists*, Milan (Italy), 30 min
- 2017 **Cellularité de l’algèbre de Hecke de  $G(r, p, n)$** , *Conference for ANR ACORT PhD students*, Université Paris 7, 1h
- 2016 **Fixed-point subalgebra of quiver Hecke algebras for a quiver automorphism (and application to the Hecke algebra of  $G(r, p, n)$ )**, *Nikolaus Conference*, Aachen (Germany), 20 min
- Algèbres de Yokonuma–Hecke et de Hecke carquois**, *Journée de l’ANR ACORT*, LAMFA (Amiens, France), 1h

#### In seminars

- 2024 **Cocktail of partitions**, *Number theory seminar*, IMB, Bordeaux, 1h
- 2023 **Cores and regular partitions**, *SPACE (Statistics, Probability, Algebra, Combinatorics, Ergodic theory) Seminar*, IDP, Tours, 1h
- 2022 **Size of the core of partitions under the Plancherel measure**, *Mathematical physics and algebraic topology seminar*, LAREMA (Angers), 1h
- 2021 **Blocs de l’algèbre d’Ariki–Koike et ensemble de sur-niveau pour la fonction poids généralisée**, *Séminaire GAAO*, LMBP, Clermont-Ferrand, 1h
- 2020 **Cellularité de l’algèbre de Hecke de  $G(r, p, n)$** , *Algebra and geometry seminar*, LMNO, Caen, 1h
- 2019 **Équivalences de Morita entre algèbres de Hecke cyclotomiques**, *PhD student seminar*, LAFMA, Amiens, 1h
- 2018 **Algèbre de Hecke carquois et algèbre de Hecke de type  $G(r, p, n)$** , *Seminar “Groupes, Représentations et Géométrie”*, IMJ-PRG, Université Paris 7, 1h30
- 2017 **Résidus bégayants**, *PhD student seminar*, LMV, Université de Versailles Saint-Quentin, 1h
- Graduation sur l’algèbre de Hecke de type  $D$** , *PhD students algebra seminar*, IRMAR, Université Rennes 1, 1h
- 2016 **Groupe symétrique et son algèbre de Hecke. Algèbre de Hecke carquois cyclotomique**, *PhD students seminar*, UVSQ (Versailles, France), 1h

#### Talks for a broad audience

- 2022 **Two hearts, that is too much!**, *5 minutes Lebesgue*, IRMAR, Video (in French) available at <https://www.youtube.com/watch?v=0ZFTEFN6L98>
- 2020 **Talk “Arithmetic of Infinity”**, *Fête de la Science (Festival of Science)*, for undergraduates, Laval
- 2018 **Participation to the French version of “Three Minute Thesis”**

2017 **Mini-workshop about Rubik's Cube**, *Fête de la Science (Festival of Science)*, for undergraduates, Reims

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### Invitations by/of collaborators

2024 **Diego Millan-Berdasco**, Universidad Camilo José Cela (Madrid), one week  
**Eirini Chavli**, Universität Stuttgart, one week

2017 **Andrew Mathas**, University of Sydney, two weeks

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### Administrative

2022–2026 **Member of the ANR CORTIPOM (COMbinatorial Representation Theory and Interaction with PRObablistic Models)**

2021–2024 **Member of an Individual follow-up comitee**, for a PhD student at IRMAR

2021–2023 **Responsible of the Arithmetic Geometry Seminar**, IRMAR

2021–2022 **Member of a think tank about including sustainable developpement in the teachings at the ENS**

2020–2021 **Conception and marking of an algebra exam for the entrance selection at the ENS**

2019–2020 **Member of a working group on the environmental impact of research**, IRMAR

2017–2018 **Member of the laboratory council of the LMV**

**Webmaster of the webpage “jeunes chercheurs” (young researchers) of the LMV**

#### Conference organisation

2025 **Co-organiser for the closing conference of ANR CORTIPOM**, one week

2024 **Co-organiser for a meeting of the ANR CORTIPOM**, two days

2017 **Co-organiser of the “Conference for ANR ACORT PhD students”**, Université Paris 7

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### (Working) seminars

2023– **SPACE seminar**, IDP, Université de Tours

2018–2023 **Arithmetic geometry seminar**, IRMAR, Université Rennes 1

2019–2020 **Working seminar on derived algebraic geometry**, IRMAR

2017–2018 **Working seminar on algebraic groups**, LMV

2015–2018 **Algebra-geometry seminar**, LMV

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### Supervision

Research seminar M2 (second year of Masters):

- Symmetric functions in infinitely many variables. Nourdine Youssouf, 2022–2023.
- Schur functions. Walid El-Ouadghiri, 2022–2023.
- Cellular algebras. Antoine Dequay, 2021–2022.

L3 level (third year of Bachelor):

- Research assisted reading: a theorem of Anderson on cores. Sylvain Chaurand and Maxence Michot, 2022–2023.

- Research assisted readings: Coxeter groups. Léo Brochier and Marceau Ringuède, 2021–2022.
- (with Vincent Cossart) Calculation of a minimal system of variables. Samy Campot, Alexandre Daniel and Agnès Michelet, 2016–2017.

Other: animation of to half-days for “J-INTENS” (inter-departments activity in the ENS Rennes about environmental and societal transitions).

## Reviewings

Articles were reviewed for the following journals:

**2022** Journal of Algebra

**2018** Proceedings of the Edinburgh Mathematical Society

## Teaching loads

2023–2024 **160h**, *maître de conférences*, Université de Tours

2021–2023 **150h/y**, *agrégé-préparateur*, ENS Rennes

2018–2021 **120h/y**, *agrégé-préparateur*, ENS Rennes

2016–2018 **64h/y**, *PhD student*, UVSQ

2014–2016 **2-3h/y**, *mathematics orals*

## Attended conferences

### International conferences

2022 **Séminaire Lotharingien de Combinatoire (SLC 87)**, Saint-Paul-en-Jarez

2021 **Combinatorics and Representation Theory in Lausanne (CoRepTiL)**, EPFL

2019 **Séminaire Lotharingien de Combinatoire (SLC 83)**, Curia (Portugal)

2018 **Representations in Lie Theory and Interactions**, CIRM

2017 **Algebraic and Geometric Combinatorics of Reflection Groups**, UdeM and CRM (Montréal, QC, Canada)

2016 **Algebraic Combinatorics in Representation Theory**, CIRM  
**Representation Theory in Samos**, Samos (Greece)

### Local conferences (selection)

2024 **Meeting of the ANR CORTIPOM**, LPSM Paris

2023 **Workshop ANR CORTIPOM**, CIRM

**Meeting ANR CORTIPOM**, IECL Nancy

2022 **Meeting of the ANR CORTIPOM**, LPSM Paris

**Starting days of the ANR CORTIPOM**, IDP Tours

2021 **GDR TLAG days**, Montpellier

2019 **Colloque tournant du GDR TLAG**, LMA, Poitiers

2017 **Conference for ANR ACORT PhD students**, Université Paris 7

2016 **Nikolaus Conference 2016**, Aachen (Germany)

**Journées de théorie des représentations**, LMR (Reims, France)

## Schools

- 2023 **Applications of Hecke and related algebras: Representations, Integrability and Physics**, *École de Physique des Houches*
- 2018 **Groups and Algebras in Bicocca for Young algebraists (GABY)**, *Università degli Studi di Milano Bicocca (Milan, Italy)*
- 2017 **Current Topics in the Theory of Algebraic Groups**, *Université de Bourgogne (Dijon, France)*
- Algebraic and Geometric Combinatorics of Reflection Groups**, *UQÀM (Montréal, QC, Canada)*

## Languages

French	Native
English	Conversationnal
German	Conversationnal

## Computer science

Languages	C++, Caml	Mathematics	Magma, Maple, Mathematica, GAP, Sage, Scilab
OS	Ubuntu, Windows	Visioconference	BigBlueButton, Microsoft Teams, Zoom
Others	L <sup>A</sup> T <sub>E</sub> X, Linux terminal, touch typing		

## Miscellaneous

Brainteasers, chess, classical guitar, mathematics, tennis