

## Biographical information

Place and date of birth 28<sup>th</sup> July 1988, Leonberg, Germany  
Nationality German

## Language skills

Mother tongue German  
Foreign languages English (level B2), Latin (high school level), Spanish (level A2), French (level A1)

## Employment

10/2023 - 09/2025 **Postdoc in mathematics at the Leibniz University Hannover**  
Institute of Algebra, Number Theory and Discrete Mathematics  
Mentor: Prof. Dr. Michael Cuntz

## Education

08/2018 - 09/2023 **Doctoral student in mathematics, TU Kaiserslautern** (funded by the DFG)  
Topic: Trivial source character tables of small finite groups  
Supervisor: Jun.-Prof. Dr. Caroline Lassueur

11/2011 - 09/2016 **Master of Science in mathematics, University of Stuttgart**  
Specialisations:  
◦ Representation theory of finite-dimensional algebras  
◦ Homological algebra  
◦ Master's Thesis (04/2016 - 09/2016)  
Title: Contributions to the representation theory of gendo-symmetric algebras  
Supervisor: Prof. Dr. Wolfgang Rump

10/2008 - 11/2011 **Bachelor of Science in mathematics, University of Stuttgart**  
Specialisations:  
◦ Representation theory of finite groups  
◦ Algebra  
◦ Bachelor's Thesis (05/2011 - 10/2011)  
Title: Influence of character degrees on the group structure  
Supervisor: Prof. Dr. Wolfgang Kimmerle

09/1999 - 07/2008 **Abitur, Albert-Schweitzer-Gymnasium Leonberg**

## Publications & preprints

In preparation A GAP package on trivial source character tables of finite groups  
In preparation Trivial source characters in blocks of domestic representation type  
Submitted Frieze patterns over finite commutative local rings (with Michael Cuntz)  
Submitted Trivial source character tables of Frobenius groups of type  $(C_p \times C_p) \rtimes H$  (with Caroline Lassueur)  
07/2024 An appendix to the article *Selfextensions of modules over group algebras* J. Algebra **649** (2024), 319-346 (with René Marczinzik)  
06/2022 On the extension-closed property for the subcategory  $\text{Tr}(\Omega^2(\text{mod } - A))$  DOI: <https://doi.org/10.1007/s10468-022-10140-7> Algebr. Represent. Theory (2022) (with René Marczinzik)  
05/2022 Trivial source character tables of  $\text{SL}_2(q)$  J. Algebra **598** (2022), 308-350 (with Niamh Farrell and Caroline Lassueur)  
01/2022 A cluster tilting module for a representation-infinite block of a group algebra J. Algebra **589** (2022), 483-494 (with René Marczinzik)

- 01/2018 *On a conjecture about Morita algebras*  
J. Algebra **508** (2018), 569-574 (with René Marczinzik)

## Research interests

- Group theory
- Modular and ordinary representation theory of finite groups
- Representation theory of finite-dimensional algebras and related combinatorial structures
- Auslander-Reiten theory
- Homological algebra
- Frieze patterns

## Research stays

- 10/2021 - 01/2022 4 months at the *University of California, Santa Cruz*, scholarship granted by the German Academic Exchange Service (DAAD)
- 03/2021 2 weeks at *Mathematisches Forschungsinstitut Oberwolfach*, Oberwolfach Research Fellowship
- 01/2020 1 week at the *Isaac Newton Institute for Mathematical Sciences*, University of Cambridge

## Contributed talks

### Research talks

- 12/2024 **Trivial source character tables of Frobenius groups of type  $(C_p \times C_p) \rtimes H$**  during the *Nikolaus Conference 2024* in Aachen
- 12/2023 **Trivial source characters in domestic representation type** during the *Nikolaus Conference 2023* in Aachen
- 09/2022 **On the computation of trivial source character tables using computer algebra** during the conference *Representation Theory at the Villa Denis* in Kaiserslautern
- 08/2022 **On the computation of trivial source character tables using computer algebra** during the conference *Structure of Group Algebras over Local Rings* in Ambleside (England)
- 09/2021 **On the computation of trivial source character tables** during the *Young Algebrists' Conference* at the EPFL (Switzerland)
- 02/2021 **Broué's abelian defect group conjecture via  $p$ -permutation equivalences** during the seminar *Promotionen und Postdocs in Darstellungstheorie* (online)
- 02/2020 **Charaktertafeln von Moduln kleiner endlicher Gruppen mit trivialen Quellen** during the *Grüppchen* at the Martin-Luther-University in Halle/Saale
- 01/2020 **Trivial source character tables of small finite groups** during the *IRTG-seminar* at the Saarland University
- 09/2019 **Representation type and combinatorics** at the 83<sup>rd</sup> *Séminaire Lotharingien de Combinatoire* in Bad Boll

### Working group talks

- 12/2023 **On the computation of projective indecomposable modules over group algebras using GAP** during the seminar *Algebra and Combinatorics* at the Leibniz University Hannover
- 06/2021 **The Littlewood-Richardson rule** during the seminar *Representation Theory of the Symmetric Group* at the TU Kaiserslautern
- 01/2021  **$p$ -permutation equivalences** during the seminar *Equivalences of block algebras* at the TU Kaiserslautern
- 06/2019 **Blocks with cyclic defect groups I** during the seminar *Block Theory* at the TU Kaiserslautern
- 04/2019 **On a counter-example to a conjecture about Morita algebras** during the seminar *Groups and Representations* at the TU Kaiserslautern
- 10/2018 **Projective and injective modules** during the seminar *Perverse equivalences and applications* at the TU Kaiserslautern

## Selected attended conferences and workshops

- 02/2025 Darstellungstheoretage in Stuttgart
- 12/2024 Nikolaus conference in Aachen

12/2023	Nikolaus conference in Aachen
10/2022	Darstellungstheorietage in Kaiserslautern
09/2022	Representation Theory at the Villa Denis in Kaiserslautern
08/2022	Structure of Group Algebras over Local Rings in Ambleside (England)
09/2021	Young Algebraists' Conference at the EPFL (Switzerland)
02/2021	Promotionen und Postdocs in Darstellungstheorie (online)
12/2020	Nikolaus conference (online)
09/2020	SFB-TRR 195: Annual conference (online)
02/2020	Grüppchen at the Martin-Luther-University in Halle/Saale
12/2019	Nikolaus conference in Aachen
10/2019	Darstellungstheorietage in Jena
06/2019	Norddeutsches Gruppentheorie-Kolloquium in Halle
06/2019	Groups, Rings and Associated Structures in Spa (Belgium)
12/2018	Nikolaus conference in Aachen
09/2018	Darstellungstheorietage in Hannover
03/2016	Workshop on Brauer Graph Algebras at the University of Stuttgart (as aide)
03/2016	Conference on Triangulated Categories in Algebra, Geometry and Topology University of Stuttgart (as aide)
09/2015	Third GAP Days 2015 at the NTNU in Trondheim (Norway)

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## University teaching

10/2024 - 03/2025	B.Sc. lecture: Linear Algebra I for computer scientists, assistant & tutor
04/2024 - 09/2024	B.Sc. lecture: Discrete Mathematics, assistant
10/2023 - 03/2024	B.Sc. lecture: Higher Mathematics 1 for Engineers, tutor
04/2022 - 09/2022	B.Sc. lecture: Character Theory of Finite Groups, assistant
04/2022 - 09/2022	B.Sc. lecture: Complex Analysis for Engineers, assistant
04/2021 - 09/2021	M.Sc. lecture: Cohomology of Groups, assistant
04/2021 - 09/2021	B.Sc. lecture: Complex Analysis for Engineers, assistant
10/2020 - 03/2021	M.Sc. lecture: Representation Theory of Finite Groups, assistant
04/2019 - 09/2019	B.Sc. lecture: Character Theory of Finite Groups, assistant
10/2016 - 03/2017	B.Sc. lecture: Higher Mathematics 3 for Engineers, tutor
10/2015 - 12/2015	B.Sc. lecture: Higher Mathematics 3 for Electrical Engineering Technicians, tutor
10/2014 - 03/2015	B.Sc. lecture: Higher Mathematics 3 for Engineers, tutor
04/2014 - 09/2014	B.Sc. lecture: Higher Mathematics 2 for Engineers, tutor
10/2013 - 03/2014	B.Sc. lecture: Higher Mathematics 3 for Engineers, tutor
04/2013 - 09/2013	B.Sc. lecture: Algebra for Mathematicians, tutor
10/2012 - 03/2013	B.Sc. lecture: Higher Mathematics 1 for Engineers, tutor
04/2012 - 09/2012	B.Sc. lecture: Geometry for Mathematicians, tutor

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## Work experience

09/2017 - 07/2018	High school teacher for mathematics and physics at the Stetten-Institute in Augsburg
05/2017 - 08/2017	Freelance collaborator at Schülerhilfe Leonberg (tutor for mathematics)

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## Computer skills

Typesetting	L <sup>A</sup> T <sub>E</sub> X (very good)
Computer languages	GAP (very good), MAGMA (good), SAGE (basics)

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## Extracurricular activities

### Further training

04/2018	DeltaPlus-course <i>Mathematik sprachsensibel unterrichten</i> in Augsburg
01/2018	Course <i>Die Kunst des guten Unterrichtens</i> with Dr. Siegfried Rodehau in Nürnberg

11/2017 Colloquium *Warum Geraden nicht Gerade sein müssen* about synthetic geometry with Prof. Wolfgang Schneider in Augsburg

11/2017 Courses "*Sprachsensibler Unterricht*", "*Umgang mit Notfallsituationen*", "*Gesprächsführung*" in the retreat house of St. Paulus in Leitershofen

### Special qualifications

10/2011 - 03/2012 Key qualification course for tutors of Higher Mathematics at the University of Stuttgart

### Voluntary services

04/2019 - 09/2023 Clarinet player at the *university orchestra* of the TU Kaiserslautern

09/2019 - 03/2020 Tutor for mathematics at the *learning centre* of the TU Kaiserslautern

1999 - today Member of (the executive board of) several *chess clubs*

1996 - 2016 Member of the wind band *Musikverein Stadtkapelle Leonberg* and leader of the clarinets

### Awards

03/2008 1<sup>st</sup> price at the federal state music competition *Jugend musiziert* (solo piano)

03/2007 1<sup>st</sup> price at the federal state music competition *Jugend musiziert* (Duo: clarinet & piano)

05/2006 3<sup>rd</sup> price at the national music competition *Jugend musiziert* (solo clarinet)

03/2006 1<sup>st</sup> price at the federal state music competition *Jugend musiziert* (solo clarinet)

10/2005 2<sup>nd</sup> price at the *Matthaes* piano competition in Stuttgart (solo piano)

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### Referees

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