

## Biographical information

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

## Education

- 08/2018 - present **Doctoral student in mathematics, TU Kaiserslautern** (funded by the DFG)  
Topic: Trivial source character tables of small finite groups
- 11/2011 - 09/2016 **Master of Science in mathematics, University of Stuttgart** (overall grade: 1.4)  
Specialisations:
- Representation theory of finite-dimensional algebras
  - Homological algebra
  - Functional analysis
  - Theoretical physics (minor subject)
  - Master's Thesis (04/2016 - 09/2016)  
Title: Contributions to the representation theory of gendo-symmetric algebras  
Grade: 1.0
- 10/2008 - 11/2011 **Bachelor of Science in mathematics, University of Stuttgart** (overall grade: 2.4)  
Specialisations:
- Representation theory of finite groups
  - Algebra
  - Experimental physics (minor subject)
  - Bachelor's Thesis (05/2011 - 10/2011)  
Title: Influence of character degrees on the group structure  
Grade: 1.7
- 09/1999 - 07/2008 **Abitur, Albert-Schweitzer-Gymnasium Leonberg** (overall grade: 2.2)

## Research interests

- Group theory
- Modular and ordinary representation theory of finite groups
- Representation theory of finite-dimensional  $K$ -algebras
- Homological algebra and Auslander-Reiten theory

## Publications and preprints

- In preparation *An algorithm to compute trivial source character tables of finite groups*
- Submitted *On the extension-closed property for the subcategory  $\text{Tr}(\Omega^2(\text{mod} - A))$*   
<https://arxiv.org/pdf/2105.14911> (with René Marczinzik)
- Accepted *Trivial source character tables of  $\text{SL}_2(q)$*   
<https://arxiv.org/pdf/2107.06241> (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 stays

- 10/2021 - 01/2022 4 months at the *University of California, Santa Cruz*, scholarship granted by the German Academic Exchange Service
- 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

## Selected attended conferences and workshops

- 12/2020 Nikolaus conference (online)
- 09/2020 SFB-TRR 195: Annual conference (online)
- 12/2019 Nikolaus conference in Aachen
- 09/2019 SFB-TRR 195: Annual conference in Saarbrücken
- 06/2019 Norddeutsches Gruppentheorie-Kolloquium in Halle (Saale)
- 06/2019 Groups, Rings and Associated Structures in Spa (Belgium)
- 12/2018 Nikolaus conference in Aachen
- 09/2018 Darstellungstheoretage in Hannover
- 09/2018 SFB-TRR 195: Annual conference in Tübingen
- 03/2016 Workshop on Brauer Graph Algebras at the University of Stuttgart (as aide)
- 09/2015 Third GAP Days 2015 at the NTNU in Trondheim (Norway)

## Contributed talks

- 09/2021 **On the computation of trivial source character tables** during the *Young Algebraists' Conference* at the EPFL in Switzerland
- 02/2021 **Broué's abelian defect group conjecture via  $p$ -permutation equivalences** during the seminar *Promotionen und Postdocs in Darstellungstheorie II* (online)
- 01/2021  **$p$ -permutation equivalences** during the seminar *Equivalences of block algebras* at the TU Kaiserslautern
- 02/2020 **Charaktertafeln von Moduln kleiner endlicher Gruppen mit trivialen Quellen** during the *Grüppchen* at the Martin-Luther-University in Halle
- 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
- 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

## Contributed posters

- 01/2020 Poster presented during the workshop GRAW01 at the Isaac Newton Institute of Mathematical Sciences, University of Cambridge
- 09/2019 Poster presented during the Annual conference of the SFB-TRR 195 at the Saarland University

## University teaching

- 04/2021 - 09/2021 M.Sc. lecture: Cohomology of Groups, assistant
- 04/2021 - 09/2021 B.Sc. lecture: Higher Mathematics 4 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
10/2011 - 03/2012	B.Sc. lecture: Higher Mathematics 1 for Engineers, tutor

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## Work experience

09/2017 - 07/2018	Grammar 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	LaTeX (very good)
Computer languages	GAP (very good), MAGMA (good), SAGE (basics)

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## Language skills

Mother tongue	German
Foreign languages	English (level B2), Latin (level B1), Spanish (level A2), French (level A1)

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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 Unterrichts - Unterricht professionell planen</i> with Dr. Siegfried Rodehau in Nürnberg
11/2017	Colloquium <i>Warum Geraden nicht Gerade sein müssen</i> about synthetic geometry with Prof. Wolfgang Schneider in Augsburg
11/2017	Courses " <i>Sprachsensibler Unterricht</i> ", " <i>Umgang mit Notfallsituationen</i> ", " <i>Gesprächsführung</i> " 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
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### Voluntary services

04/2019 - today	Clarinet player at the <i>university orchestra</i> of the TU Kaiserslautern
10/2019 - 02/2020	Tutor for mathematics at the <i>learning centre</i> of the TU Kaiserslautern
1999 - today	Member of (the executive board of) several <i>chess clubs</i>
1996 - 2016	Member of the wind band <i>Musikverein Stadtkapelle Leonberg</i> and leader of the clarinets

### Awards

03/2008	1 <sup>st</sup> price at the federal state music competition <i>Jugend musiziert</i> (solo piano)
03/2007	1 <sup>st</sup> price at the federal state music competition <i>Jugend musiziert</i> (Duo: clarinet & piano)
05/2006	3 <sup>rd</sup> price at the national music competition <i>Jugend musiziert</i> (solo clarinet)
03/2006	1 <sup>st</sup> price at the federal state music competition <i>Jugend musiziert</i> (solo clarinet)
10/2005	2 <sup>nd</sup> price at the <i>Matthaes</i> piano competition in Stuttgart (solo piano)

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## Referees

Supervisor of my doctoral thesis	Caroline Lassueur, lassueur@mathematik.uni-kl.de, +49 (0)631 205 2515, <a href="https://www.mathematik.uni-kl.de/~lassueur/en/">https://www.mathematik.uni-kl.de/~lassueur/en/</a>
Supervisor of my master thesis	Wolfgang Rump, rump@mathematik.uni-stuttgart.de, +49 (0)711 685 65516, <a href="https://pnp.mathematik.uni-stuttgart.de/iaz/iaz1/Rump/index.html">https://pnp.mathematik.uni-stuttgart.de/iaz/iaz1/Rump/index.html</a>