

# Mireille Soergel

## Curriculum Vitae

Aroser Allee 153a  
13407 Berlin, Germany  
✉ [soergel@math.tu-berlin.de](mailto:soergel@math.tu-berlin.de)  
📁 [soergelm.github.io](https://github.com/soergelm)

### Education

- Oct 2019– **PhD in Mathematics**, *Université de Bourgogne*, Dijon, France.  
June 2023 Title: *Constructing group actions on non-positively curved spaces for Dyer groups and Garside groups*  
Advisors: Thomas Haettel (Université de Montpellier, France) and Luis Paris  
Defended on May 22nd 2023
- April 2016– **Master of Science in Mathematics**, *Ruprechts-Karls-Universität*, Heidelberg,  
March 2019 Germany.  
Thesis: *Simplicial complexes associated to two-generated Artin groups*  
Supervisors: JProf. Dr. Maria Beatrice Pozetti and JProf. Dr. Petra Schwer (Karlsruhe Institute of Technology, Germany)
- Sep 2011– **Bachelor of Science in Mathematics**, *ETH Zürich*, Zürich, Switzerland.  
April 2016 Thesis: *Complete minimal systems in  $\ell_\infty(\omega)$*   
Supervisor: Dr. Lorenz Halbeisen

### Experience

- since May **Postdoc**, *TU Berlin*, Berlin, Germany.  
2025 Member of Laura Ciobanu's Applied Algebra research group
- Oct 2023 – **Postdoc**, *Max Planck Institute for Mathematics in the Sciences*, Leipzig,  
April 2025 Germany.  
Member of Anna Wienhard's Geometry, Groups, and Dynamics research group
- Oct 2022– **Scientific Assistant**, *ETH Zürich*, Zürich, Switzerland.  
Sept 2023 Member of Marc Burger's research group
- Oct 2019– **Doctoral contract**, *Université de Bourgogne*, Dijon, France.  
Sept 2022

### Teaching

- May 2025 – **Teaching assistant**, *TU Berlin*, Berlin, Germany.  
July 2025 Coxeter groups: making exercise sheets, teaching weekly exercise classes, assisting oral exams
- Feb 2023 – **Course coordinator**, *ETH Zürich*, Zürich, Switzerland.  
Sept 2023 Topology: making the exercise sheets, organizing the exam, coordinating the teaching assistants, teaching weekly exercise classes, grading weekly exercise sheets, responsible for the course website

- March 2020– **Teaching assistant**, *Université de Bourgogne*, Dijon, France.
- Jan 2022 Fall Semester 2021: Maths 1B (Logic and Algebra) (30 hours of exercise classes)  
 Spring Semester 2021: Maths 2A (Analysis) (30 hours of exercise classes)  
 Fall Semester 2020: Maths 1B (Logic and Algebra) (30 hours of exercise classes)  
 Spring Semester 2020: Mathematics applied to Biology (10 hours of exercise classes)
- Oct 2016– **Teaching assistant**, *Ruprechts-Karls-Universität Heidelberg*, Heidelberg,  
 March 2018 Germany.  
 Winter Semester 2017/2018: Linear Algebra I  
 Summer Semester 2017: Linear Algebra II  
 Winter Semester 2016/2017: Linear Algebra I  
 each including grading weekly exercise sheets and final exams
- Feb 2015– **Teaching assistant**, *ETH Zürich*, Zürich, Switzerland.
- June 2015 Numerical Analysis II, including grading weekly exercise sheets

## Research

### Publications and Preprints

- 2024 M. Soergel, joint with Nicolas Vaskou, *Dyer groups: Centres, hyperbolicity, and acylindrical hyperbolicity*, preprint, arXiv:2410.22464
- 2024 M. Soergel, *A generalization of the Davis-Moussong complex for Dyer groups*, J. Comb. Algebra 8 (2024), no. 1/2, pp. 209–249
- 2023 M. Soergel, joint with Luis Paris, *Word problem and parabolic subgroups in Dyer groups*, Bull. Lond. Math. Soc. 55 (2023), no. 6, 2928–2947
- 2023 M. Soergel, *Systolic complexes and group presentations*, Groups Geom. Dyn. 17 (2023), no. 3, pp. 899–921

### Invited Talks

- June 2025 Cáceres (Spain), ParisFest, *Parabolic subgroups of Dyer groups*
- June 2025 Dijon (France), Congrès de la SMF, *Groupes de Dyer et hyperbolicité*
- March 2025 Glasgow (UK), Scottish Topology Seminar, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- Nov 2024 Wrocław (Poland), Geometry Seminar, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- Oct 2024 Warwick (UK), Geometry and Topology Seminar, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- Oct 2024 Louvain-la-Neuve (Belgium), Group Theory Seminar, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- Sep 2024 Paderborn (Germany), Integral Structures in Geometry and Representation Theory, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- July 2024 Sevilla (Spain), European Congress of Mathematics Mini-Symposium on Computational Group Theory, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- July 2024 online, PGGT Seminar, *Dyer groups: Coxeter groups, right-angled Artin groups and more*

- May 2024 Galway (Ireland), Groups in Galway, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- March 2024 Orsay (France), Séminaire Groupes et Actions, *Groupes de Dyer: une généralisation des groupes de Coxeter et des groupes d'Artin à angles droits*
- Feb 2024 Marseille (France), GAGTA, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- Nov 2023 Cambridge (UK), Geometric Group Theory Seminar, *Dyer groups: Coxeter groups, right-angled Artin groups and more*
- Oct 2023 Magdeburg (Germany), Oberseminar, *A Davis-Moussong complex for Dyer groups*
- June 2023 Ottawa (Canada), Canadian Mathematical Society Meeting, *An introduction to Dyer groups*
- April 2023 online, Lincoln (UK), Algebra Seminar, *Dyer groups*
- March 2023 online, 56th Spring Topology and Dynamical Systems Conference, *The geometry of Dyer groups*
- March 2023 Zürich (Switzerland), Geometry Graduate Colloquium, *Simplicial non-positive curvature*
- Dec 2022 Münster (Germany), Tea Seminar, *A generalized Davis-Moussong complex for Dyer groups*
- Nov 2022 Orsay (France), Paroles aux Jeunes Chercheuses et Chercheurs du GDR Platon
- Nov 2022 Zürich (Switzerland), Geometry Seminar, *A generalized Davis-Moussong complex for Dyer groups*
- July 2022 Vienna (Austria), Summer topology conference, *Dyer groups are  $CAT(0)$*
- May 2022 Montpellier (France), Workshop Tresses, MCG et Khovanov-Seidel, *Structures de Garside sur les groupes libres*
- Feb 2022 online, Séminaire virtuel francophone Groupes et Géométries, *Présentations systoliques et groupes de Garside*
- Dec 2021 Münster (Germany), Tea Seminar, *Systolic complexes and Garside groups*
- Dec 2021 online, Bielefeld (Germany), Oberseminar Groups and Geometry, *Systolic complexes and group presentations*
- Oct 2021 Dijon (France), Séminaire GADT, *Complexes systoliques et groupes de Garside*
- Sep 2021 Kleebach (France), Meeting Groups and Geometry, *Systolic complexes and Garside groups*
- Research stays**
- June 2023 Montreal (Canada), Thematic Program on Geometric Group Theory, with financial support from the CRM
- Jan 2022–  
June 2022 Montpellier (France), Scientific visit to Thomas Haettel
- Nov 2021 Nice (France), Scientific visit to Indira Chatterji

---

## Service

- April 2025 Co-organizer of the Young Geometric Group Theory XIII Conference in Copenhagen (Denmark) This is an event for young researchers consisting of mini-courses and plenary talks covering a broad range of topics within geometric group theory
- June 2024 Co-organizer of the Queer in Math Day at MPI MiS Leipzig (Germany) This one-day conference served to showcase the work of queer mathematicians. The scientific program is meant to be accessible to a broad mathematical audience, with two colloquium style talks, a short introductory talk, and a panel exploring being queer in mathematics. Together with Celia Hacker and Leonie Kayser, we published an article about the Queer in Math Day in *Mitteilungen der Deutschen Mathematiker-Vereinigung*, vol. 33, no. 1, 2025, pp. 51-55.
- April 2024 - Co-organizer of the Geometry Seminar at MPI MiS Leipzig (Germany) The  
Sep 2024 seminar consisted of two talks every week, on a wide range of topics covering the diverse interests of the Geometry, Groups, and Dynamics research group.
- June 2021 – Elected PhD student representative in the department council in Dijon (France)  
June 2022
- March 2021 – Organizer of the mathematics PhD students seminar in Dijon (France)  
Jan 2022
- Oct 2017– Elected member of the mathematics department council (Fakultätsrat) in  
Oct 2018 Heidelberg (Germany) as a student representative
- Oct 2017– Member of the undergrad committee (Studienkommission) for mathematics in  
Oct 2018 Heidelberg (Germany) as a student representative

---

## Languages

- French native
- German native
- English proficient