

# Carolin Kimmig

## Curriculum Vitae

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### Personal Data

Name: Carolin Nadja Kimmig  
Nickname: Lina  
Birthday: 26.06.1996  
Place of Birth: Tübingen

### Education

12/2024 – present **Postdoc**, *Dipartimento di Fisica, Università degli Studi di Milano, Italy*, with Prof. Giovanni Rosotti  
11/2021 – 11/2024 **PhD student**, *Institute for Theoretical Astrophysics (ITA), Heidelberg University, Germany*, with Prof. Cornelis Dullemond  
10/2019 – 08/2021 **Physics Master student**, *Ruprecht-Karls-Universität Heidelberg, Germany*  
10/2015 – 09/2019 **Physics Bachelor student**, *Ruprecht-Karls-Universität Heidelberg, Germany*

### Published literature

- 02/2026 **Spiral formation caused by late infall onto protoplanetary disks**, *Astronomy & Astrophysics*, L.-A. Hühn, [C. N. Kimmig](#), C. P. Dullemond, DOI: <https://doi.org/10.1051/0004-6361/202558773>  
accepted
- 01/2026 **Warps survive beyond fly-by encounters in protoplanetary disks – RW Aur A as a case study**, *Astronomy & Astrophysics*, [C. N. Kimmig](#), P. Weber, G. P. Rosotti, S. Facchini, C. P. Dullemond, DOI: <https://doi.org/10.1051/0004-6361/202557365>  
cited: 1
- 01/2026 **The Structure and Kinematics of Three Class 0 Protostellar Jets from JWST**, *The Astrophysical Journal*, Samuel A. Federman, S. Thomas Megeath, Alessio Caratti o Garatti, Mayank Narang, Himanshu Tyagi, Neal J. II Evans, [Carolin N. Kimmig](#), Lukasz Tychoniec, Henrik Beuther et al., DOI: <https://doi.org/10.48550/arXiv.2601.09587>  
cited: 2
- 09/2025 **exoALMA. XVIII. Interpreting Large-scale Kinematic Structures as Moderate Warping**, *The Astrophysical Journal Letters*, Andrew J. Winter, Myriam Benisty, Andrés F. Izquierdo, Giuseppe Lodato, Richard Teague, [Carolin N. Kimmig](#), Sean M. Andrews, Jaehan Bae, Marcelo Barraza-Alfaro, Nicolás Cuello et al., DOI: <https://doi.org/10.3847/2041-8213/adf113>  
cited: 8
- 06/2025 **Asymmetric signatures of warps in edge-on disks**, *Astronomy & Astrophysics*, [Carolin N. Kimmig](#), Marion Villenave, DOI: <https://doi.org/10.1051/0004-6361/202453313>  
cited: 5
- 12/2024 **Binary orbit and disk's properties of RW Aur through ALMA observations**, *Astronomy & Astrophysics*, N. T. Kurtovic, S. Facchini, M. Benisty, P. Pinilla, S. Cabrit, E. L. N. Jensen, C. Dougados, R. Booth, [C. N. Kimmig](#), C. Manara, J. E. Rodriguez, DOI: <https://doi.org/10.1051/0004-6361/202347583>  
cited: 5
- 09/2024 **Warped disk evolution in grid-based simulations**, *Astronomy & Astrophysics*, [Carolin N. Kimmig](#), Cornelis P. Dullemond, DOI: <https://doi.org/10.1051/0004-6361/202348660>  
cited: 16

- 04/2022 **On the equations of warped disc dynamics**, *Monthly Notices of the Royal Astronomical Society*, C. P. Dullemond, C. N. Kimmig, J. J. Zanazzi, DOI: <https://doi.org/10.1093/mnras/stab2791>  
cited: 17
- 01/2020 **Effect of wind-driven accretion on planetary migration**, *Astronomy & Astrophysics*, Carolin N. Kimmig, Cornelis P. Dullemond, Willy Kley, DOI: <https://doi.org/10.1051/0004-6361/201936412>  
cited: 48
- [Publications in prep.](#)
- 2026 **Evaluating kinematic residuals of warped disks**, *Astronomy & Astrophysics*, C. N. Kimmig, G. P. Rosotti, A. Winter, S. Facchini, M. Benisty, G. Lodato, F. Zagaria, and T. Birnstiel  
in prep.
- 2026 **Dwarpy: a one-dimensional evolution code for warped astrophysical disks**, *Astronomy & Astrophysics*, C. N. Kimmig, C. P. Dullemond, J. Braunwarth, J. P. Bahrenberg  
in prep.

## Talks at International Conferences

- 02/2026 **Hydrodynamic and Dusty Turbulence Workshop**, *Inclined to misalign – Understanding warped protoplanetary disks*, New York, USA
- 02/2026 **DAMTP Astrophysics Seminar Series**, *Inclined to misalign – Understanding warped protoplanetary disks*, Cambridge, UK
- 09/2025 **Como Lace Center for Astrophysics (CLAP) Workshop**, *Warped protoplanetary disks*, Como Colma di Sormano, Italy
- 01/2025 **Italian National Conference of Star and Planet Formation**, *Always look on the bright side of disks – Shadows caused by warps*, Seston, Italy
- 12/2024 **Milano Christmas Meeting**, *Oh warping disk, oh warping disk, your shadow dark de-lights us*, Milan, Italy
- 06/2024 **ERC Workshop on Protoplanetary Disks**, *Fly-bye, Butterfly! – Disk warping caused by a stellar fly-by*, Varenna, Italy
- 03/2024 **Research Unit Transition Disks (RUTD)**, *Warped disks in 3D*, LMU Munich, Germany
- 10/2023 **Core2Disk III**, *Can magnetic disk winds induce planetary migration?*, Université Paris-Saclay, France
- 04/2023 **Protostars and Planets VII**, *Spirals and Warps: Non-axisymmetric features in protoplanetary disks*, Kyoto, Japan
- 09/2022 **Research Unit Transition Disks (RUTD)**, *Spirals and warps – non-axisymmetric features in protoplanetary disks*, LMU Munich, Germany
- 08/2022 **Formation and Evolution of Planetary Systems: a conference dedicated to the scientific legacy of Willy Kley**, *Warping through the Galaxy*, Tübingen, Germany
- 02/2022 **Star and Planet Formation Group, University of Michigan**, *Modeling warped disks in 1D*, Michigan, USA (online talk)
- 11/2021 **Research Unit Transition Disks (RUTD) Kick-Off Phase II**, *Non-axisymmetric features in PPDs: modeling warped disks*, LMU Munich, Germany
- 09/2021 **Spinning Fluids: Laboratory Fluid Dynamics for Disks and Planets**, *Warping through the Universe*, Ringberg, Germany
- 12/2020 **5 Years after HL Tau**, *Effect of wind-driven accretion on planetary migration*, Online
- 07/2019 **Turbulence and Structure Formation in Protoplanetary Disks 2019: Observation, Theory, and Experiments**, *Effect of wind-driven accretion on planetary migration*, Ringberg, Germany

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## Outreach

- 03/2025 **The recipe for planet formation – a piece of cake?**, *Talk at the Barry Astronomical Society, UK (online talk)*  
<https://barryastronomical.wordpress.com/>
- 05/2024 **A story of planet formation**, *Article in the Popular Astronomy Magazine, UK*  
<https://www.popastro.com/>  
article: <https://carolin-kimmig.com/files/2024-popular-astronomy.pdf>
- 2022 – 2023 **Author for astrobites.org**, *daily astrophysical literature journal aimed at undergraduate students*  
<https://astrobites.org/author/lkimmig/>
- 11/2023 **Structured Rings and Gaps: Is This Where We Come From?**, *STRUCTURES Cluster of Excellence Blog Post*  
[https://structures.uni-heidelberg.de/blog/posts/2023\\_11\\_kimmig/index.php](https://structures.uni-heidelberg.de/blog/posts/2023_11_kimmig/index.php)
- 07/2023 **Roadshow Universe-on-Tour**, *stand support, Heidelberg*  
<https://www-astro.physik.tu-berlin.de/exoplanet-diversity/our-spp-1992-members-at-the-roadshow-in-heidelberg>
- 10/2022 **Meet the Scientists**, *Interview for the SPP-1992 Exoplanet Diversity*  
<https://www-astro.physik.tu-berlin.de/exoplanet-diversity/interview-with-carolin-kimmig>
- 12/2019 **Grow your own planet**, *Public talk at 36C3 in Hamburg, Germany, co-speaker: Anna Penzlin*  
[https://media.ccc.de/v/36c3-10607-grow\\_your\\_own\\_planet](https://media.ccc.de/v/36c3-10607-grow_your_own_planet)

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## Scientific Activity

- 4.7. – 8.7.2022 **Hands-on Numerical Astrophysics School for Exoplanetary Sciences 2022**, *Workshop of DFG Exploring the Diversity of Extrasolar Planets (SPP 1992), Hanau-Steinheim*
- 31.8. – 4.9.2020 **IMPRS Summer School: Planet formation in protoplanetary disks**, *Max-Planck-Institute for Astronomy in Heidelberg, Heidelberg/Online*
- 15.6. – 5.7.2020 **eIAYC - International Astronomical Youth Camp**, *The International Workshop For Astronomy e.V., Online*
- 25.6. – 29.6.2018 **Hands-on Numerical Astrophysics School for Exoplanetary Sciences 2018**, *Workshop of DFG Exploring the Diversity of Extrasolar Planets (SPP 1992), Kloster Höchst*
- 24.7. – 13.8.2016 **IAYC - International Astronomical Youth Camp**, *The International Workshop For Astronomy e.V., Nettlecomb Court, UK*
- 4.7. – 14.7.2015 **MoMISSS - Modern Mathematics International Summer Schools for Students**, *Jacobs University Bremen*
- 22.9. – 27.9.2013 **German-Czech RoboSchool 2013**, *Workshop in robotics for students from Germany and Czech Republic, TU Chemnitz*
- 21.5. – 25.5.12 & 24.10. – 28.10.2011 **Student Internship**, *Argelander-Institute for Astronomy, Bonn University, Supervisors: Dr. Nadya Ben Bekhti, Verena Darmstädter*
- 26.8. – 8.9.2011 **Science Academy Baden-Württemberg**, *Deutsche JuniorAkademien Adelsheim, Course Astronomy*

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## Teaching Experience

- winter term 2022-23 **Tutor for the lecture Introduction to Astronomy 1**, *Prof. Cornelis Dullemond, Heidelberg University*
- 02/2024 **Supervising a student internship (2 weeks)**, *Student's project: Simulation of an exoplanet transit in Python, Heidelberg University*
- 01/2024 **Co-Supervising a job orientation internship (BOGY, 1 week)**, *Student's project: Planetary orbit simulations, Heidelberg University*
- 04/2022 **Supervising a job orientation internship (BOGY, 1 week)**, *Student's project: Exoplanet statistics, Heidelberg University*

- 03/2022 **Tutor for the block course Introduction to Astronomy 1&2**, Prof. Markus Pössel & Prof. Cornelis Dullemond, Heidelberg University
- 01/2022 **Supervising a student internship (3 weeks)**, Student's project: Protoplanetary disk simulations with FARGO3D, Heidelberg University
- winter term 2021-22 **Tutor for the lecture Introduction to Astronomy 1**, Prof. Cornelis Dullemond, Heidelberg University

## Supporting the Scientific Community

- 08/2022 **Formation and Evolution of Planetary Systems: a conference dedicated to the scientific legacy of Willy Kley**, Member of the Local Organizing Committee, Tübingen, Germany
- 07/2021 **Sagan Exoplanet Summer Virtual Workshop – Circumstellar Disks and Young Planets**, Hands-on session supervisor, Online
- 07/2020 **Exoplanets III**, Member of the Local Organizing Committee, Heidelberg, Germany & Online

## Technical Skills

Programming	Python   C   C++   HTML	Parallel Comp.	OpenMP   MPI
Astro Software	FARGO3D   dwarpy   RADMC3D   warp-fitter	High Performance Computing	PBS   SLURM
Development Systems	git   Jupyter   PyCharm   VS Code Linux   Windows	Visualization Office	matplotlib   GLnemo2   plotly LaTeX   PowerPoint   Word   Excel

## Languages

German	Native language	
English	Excellent knowledge	
Italian	Basic knowledge	
German Sign Language	Basic knowledge	Language school "Gebärden-Verstehen" Heidelberg

## Voluntary Commitment

- 2023 **Supervising "Girl's Day"**, Topic: Expansion of the Universe, Institute for Theoretical Astrophysics, Heidelberg
- 2016 – 2023 **Organisation committee of the IT-Security-Conference MRMCD**, Chaos Computer Club, Darmstadt
- 2016 – 2019 **Supervising "Girl's and Boy's Day"**, Topic: What is time?, Deutsches Krebsforschungszentrum (DKFZ), Heidelberg

## Leisure Activities

- Dancing (ballroom and latin dance)
- Swimming
- Sewing
- Playing the guitar and the flute