

Carolin Kimmig

Curriculum Vitae

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Personal Data

Name: Carolin Nadja Kimmig
Nickname: Lina

Education

11/2021 – present **Institute for Theoretical Astrophysics (ITA) Heidelberg University**, *Astrophysics*, PhD student with Prof. Cornelis Dullemond
10/2019 – 08/2021 **Heidelberg University**, *Physics*, Master of Science
10/2015 – 09/2019 **Heidelberg University**, *Physics*, Bachelor of Science

Publications

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: 28

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: 3

Publications in prep.

2023 **Warped disk evolution in grid-based simulations**, *Astronomy & Astrophysics*, Carolin N. Kimmig, Cornelis P. Dullemond
submitted on Nov. 17th 2023

2023 **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
submitted on July 27th 2023, recommended for publication after revision

2024 **Dwarpy: a one-dimensional evolution code for warped astrophysical disks**, *Astronomy & Astrophysics*, Carolin N. Kimmig, Cornelis P. Dullemond, J. P. Bahrenberg
in prep.

International Conferences

Talks

10/2023 **Core2Disk III**, *Can magnetic disk winds induce planetary migration?*, Université Paris-Saclay, France

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
- Posters
- 04/2023 **Protostars and Planets VII**, *Spirals and Warps: Non-axisymmetric features in protoplanetary disks*, Kyoto, Japan
- 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

Outreach

- 01/2022 – present **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
- 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

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

Teaching Experience

- winter term 2022-23 **Tutor for the lecture Introduction to Astronomy 1**, Prof. Cornelis Dullemond, Heidelberg University
- 04/2022 **Supervising a job orientation internship (BOGY)**, *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**, *Student's project: Creating simulations in 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

Programmming	Python C C++ HTML	Parallel Comp.	OpenMP MPI
Astro Software	FARGO3D dwarpy RADMC3D	Development	git Jupyter PyCharm VS Code
Visualization	matplotlib GLnemo2 plotly	Office	LaTeX PowerPoint Word Excel
Systems	Linux Windows		

Languages

German	Native language	
English	Excellent knowledge	
German Sign Language	Basic knowledge	<i>Language school "Gebärden-Verstehen" Heidelberg</i>

Voluntary Commitment

- 2016 – present **Organisation committee of the IT-Security-Conference MRMCD**, *Chaos Computer Club*, Darmstadt
- 2023 **Supervising "Girl's Day"**, *Topic: Expansion of the Universe*, Institute for Theoretical Astrophysics, Heidelberg
- 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