

CHRISTIAN GINSKI

+31 (611) 595 215 ♦ christian.ginski@universityofgalway.ie ♦ www.christian-ginski.com

University Road ♦ H91 TK33 Galway ♦ Ireland

EMPLOYMENT HISTORY

Lecturer (Assistant Professor)

University of Galway

March 2023 - present

Research Associate

Leiden Observatory & Anton Pannekoek Institute for Astronomy

May 2014 - February 2023

Postdoctoral Researcher

Astrophysical Institute and University Observatory Jena

December 2012 - April 2014

EDUCATION

Ph.D. Physics (Astronomy)

Friedrich-Schiller-Universität Jena

“Orbital motion of sub-stellar companions” (magna cum laude)

(advisor: Ralph Neuhäuser)

December 2012

Diploma (Master) Physics

Friedrich-Schiller-Universität Jena

“Search for substellar companions around young stars with the Hubble Space Telescope”

February 2009

RESEARCH INTERESTS

I am interested in the timescales and locations in which planets start to form and to connect these to the dominant formation mechanisms as well as the atmospheres of evolved planets. I am utilizing the worlds leading observational facilities to obtain high contrast and high spatial resolution images of young planets and planet-forming disks. I want to link spatial sub-structures, observed in disks, to embedded planets. For this purpose I am developing advanced observation and image processing strategies. I am also studying the influence of stellar multiplicity on the planet formation process.

PUBLICATION OVERVIEW

I am first author of 13 refereed publications and (co-)author of a total of 140 refereed publications.

My work comprises 191 entries in the Astrophysics Data System which were cited 5,288 times.

My Hirsch h-index is 41 (i.e. 41 publications with ≥ 41 citations).

EXTERNAL FUNDING

- accumulated equivalent monetary value of principal investigator observing projects at major facilities in excess of **€ 2,200,000**
- *Planets and Inner Disks in Reflected Starlight with SPHERE/ZIMPOL*, PhD project, PI: Christoph Keller, CO-I: Christian Ginski, **€ 150,000** from NOVA and **€ 75,000** from Leiden University
- *The Dynamic & Chemical Connection*, Lorentz Center workshop, PI: Christian Rab, CO-I: Christian Ginski, **€ 25,000**
- travel funding from the Leids Kerkhoven-Bosscha Fonds for a total of 5 work visits or conference attendances, **€ 1900**

OBSERVATIONAL AND/OR DATA ANALYSIS EXPERTISE

My observational expertise covers optical to mm wavelengths. This includes **23 PI programs at ESO observational sites (304 h of observing time)** and 112 CO-I programs. I am furthermore the **PI of an accepted James Webb Space Telescope program** with 4.6 h of observing time granted and the CO-I of an additional program. In the mm-regime I am using the ALMA telescope array. I am PI of one ALMA program and CO-I of 8 programs. Below a brief summary of my observational and data reduction expertise:

- ESO VLT and NTT for adaptive optics high resolution imaging and polarimetry in the NIR and VIS as well as high resolution spectroscopy
- ALMA and JCMT (sub)-mm interferometry/ imaging
- Hubble and James Webb Space Telescope for high contrast imaging in the NIR and VIS
- Keck, Gemini and Subaru 8 m telescopes for adaptive optics high resolution imaging in the NIR
- Calar Alto 2.2 m telescope for lucky imaging and photometry in the VIS

ACCEPTED PI PROPOSALS WITHIN THE LAST FIVE YEARS

Title	Facility	Instrument	Year	Hours	Valued at
<i>Follow the trace: Direct detection of a dynamically ejected young planet outside a circumbinary disk</i>	JWST	NIRCam	2023	4.6	€ 230,000
<i>Confirming a third directly imaged gas giant exoplanet around the young Solar analogue YSES1</i>	ESO/VLTI	GRAVITY	2022	3.0	€ 21,600
<i>Optical scattered light survey of young planet forming disks: Connecting au-scale structures and micron-sized dust</i>	ESO/VLT	SPHERE	2022	24.0	€ 172,800
<i>Confirmation of an embedded planet in a PDS70-like transition disk</i>	ESO/VLT	SPHERE	2021	2.0	€ 14,400
<i>DESTINY-X: An X-SHOOTER follow-up of the SPHERE DESTINY-X large program</i>	ESO/VLT	X-SHOOTER	2021	7.9	€ 56,900
<i>A mm snapshot survey of nearby young stars observed in scattered light</i>	ALMA	-	2021	3.9	€ 124,800
<i>DESTINY-X: An X-SHOOTER follow-up of the SPHERE DESTINY-X large program</i>	ESO/VLT	X-SHOOTER	2021	6.7	€ 48,200
<i>Confirming planet candidates in a massive perturbed transition disk</i>	ESO/VLT	SPHERE	2021	6.0	€ 43,200
<i>DESTINY-X: An X-SHOOTER follow-up of the SPHERE DESTINY-X large program</i>	ESO/VLT	X-SHOOTER	2020	8.0	€ 57,600
<i>Disk Evolution Study Through Imaging of Nearby Young Stars (DESTINY-X)</i>	ESO/VLT	SPHERE	2019	127.5	€ 918,000
<i>Constraining the structure of the HD97048 transition disk in polarized scattered light</i>	ESO/VLT	SPHERE	2018	3.5	€ 25,200
<i>Caught in the act - thermal infrared imaging of forming planets in the V1094 Sco transition disk</i>	ESO/VLT	NACO	2018	1.5	€ 10,800
<i>A polarized scattered light study of the most extended Lupus disks around low-mass stars</i>	ESO/VLT	NACO	2018	19.5	€ 140,400
<i>A deep study of a planet bearing disk in polarized scattered light</i>	ESO/VLT	SPHERE	2018	2.5	€ 18,000
<i>Uncovering the Chamaeleon disk population in polarized scattered light</i>	ESO/VLT	SPHERE	2018	12.0	€ 86,400

COMMUNITY LEADERSHIP

- **PI of the ESO large program DESTINYs** (Disk Evolution Study Through Imaging of Nearby Young Stars) started end of 2019 (127.5 h of observing time granted)
- deputy-leader of the SPHERE GTO survey of protoplanetary- and debris disks (20 nights at the ESO/VLT, 34 accepted publications to date)
- co-author of the review chapter (“Optical and Near-infrared View of Planet-forming Disks and Protoplanets”) for *Protostars and Planets VII*
- member of student promotions and outreach committee, University of Galway (ongoing)
- member of Anton Pannekoek Institute PhD and Postdoc council 2020/2021
- lead of the working group “Operations, Calibrations, Polarimetry” for the SPHERE upgrade process and co-author of the SPHERE+ whitepaper to ESO

TEACHING EXPERIENCE

- primary supervisor for 21 research projects at the Bachelor and Master level and co-supervisor of 4 PhD student projects
- lecturer/ coordinator of the courses “Problem Solving”, “Astrophysics”, “Physics Special Topics”
University: Galway, Ireland, 2023 (ongoing)
- co-organizer and project supervisor of the “Astrophysics Summer Program for International Research Experience (ASPIRE)”
University: Amsterdam, Netherlands, 2019 + 2021
- lecturer/ co-lecturer of the courses “Introduction to Linux and Python programming”, “Workshop Astronomy” and “Star and planet formation”
University: Amsterdam, Netherlands, 2018 - 2021
- lecturer of 2nd year Bachelor course “Modern Astronomical Research”
University: Leiden, Netherlands, 2016 + 2017
- teaching assistant in physics laboratory, “Solar systems” lecture and “Astronomical observation techniques” lecture
University: Jena, Germany, 2010 + 2011

OUTREACH (SELECTED)

- talk at the Meeting of Physics Societies Ireland “Observing the cradles of planet formation”, Dublin, Ireland, 2023,
- talk at Galway Astronomy Club “Exploring the cradles of planet formation with Europe’s largest telescopes”, Galway, Ireland, 2023
- fund-raising drive for the ASPIRE summer school program, Amsterdam University 2021
- online talk for national stargazing night in the Netherlands 2021 - *Europe’s largest telescopes - Discovering distant worlds in the making* (watch the recording of the event here)
- first speaker of “Astronomy on Tap Leiden” - *Say Cheese! Photographing Exoplanets*, Leiden 2017 (watch the recording of the event here)
- radio interview about circumstellar disks and planet formation in the German show “IQ - Wissenschaft und mehr” (a transcript of the interview was also published as an article in the national German newspaper “Die Welt”), 2016
- talk on the “Day of Astronomy - Jena”, Germany 2013: *The long journey of the comets*

STUDENT SUPERVISION

Student	Level	Year (finish)	Project Title
---------	-------	---------------	---------------

Co-supervision of PhD students:

Yapeng Zhang	PhD	2023	<i>Characterization of exoplanet atmospheres with high-resolution spectroscopy</i>
Per-Gunnar Vægård	PhD	2023	<i>Disks around the precursors of Herbig Ae stars</i>
Alex Bohn	PhD	2021	<i>Young suns and infant planets</i>
Gabriela Muro Arena	PhD	2021	<i>A colorful view of planet formation: A multi-wavelength study of planet-disk interaction</i>

Primary supervision:

Matthew Murphy	Summer School	2023	<i>Orbits of young, planet-forming stellar binary systems</i>
Sam de Regt	Master	2022	<i>Studying scattered light disks with VLT/NACO polarimetric differential imaging</i>
Lucas Stapper	Master	2020	<i>Retrieving disk images with modified angular differential imaging</i>
Dirk van Dam	Master	2016	<i>Direct detection of a giant exo-ring system</i>
Floor Stikkelbroeck	Bachelor	2021	<i>Statistical analysis of scattered light disks in Sco-Cen</i>
Yannick de Graaf	Bachelor	2018	<i>Detecting circumstellar disks in archival VLT/NACO data</i>
Rua Sulaiman	Summer School	2021	<i>Imaging the cradles of planet formation</i>
Marie Rodriguez	Summer School	2019	<i>Advanced differential imaging methods for high contrast imaging</i>
Jeremy Dietrich	Summer School	2015	<i>An archival VLT/NACO multiplicity investigation of exoplanet host stars</i>

Shared primary supervision:

Ruoyan Wang	Master	2020	<i>Cataloging and Visualizing Cradles of Planet Formation</i>
Javiera Gómez	Master	2018	<i>Determining the colors of circumstellar dust</i>
Geoffrey Bethel	Master	2018	<i>Recovering the polarization degree of circumstellar disks</i>
Akshatha Gopinath	Master	2018	<i>Improving reference differential imaging with SPHERE/IFS</i>
Aaron Seymour	Master	2018	<i>High resolution spectroscopy of circumstellar disks with VLT/MUSE</i>
Dennis Vaendel	Master	2017	<i>Studying transition disks using Reference star Differential Imaging</i>
Ouisam Sawas	Bachelor	2021	<i>Dust scattering phase function of HD97048</i>
Mathijs van Bree	Bachelor	2017	<i>Analyzing convolved images of protoplanetary disks</i>
Ardjan Sturm	Bachelor	2017	<i>Resolved spectroscopy of planet forming disks with SPHERE/IFS</i>

SCIENTIFIC PRESENTATIONS

Title	Year	Type	Location
Invited Talks (selected):			
<i>DESTINYs The largest near-infrared survey of planet-forming disks with extreme adaptive optics</i>	2023	community meeting	“DUSTBIN” meeting, DIAS, Dublin, Ireland
<i>Observing young planets and their origins</i>	2022	colloquium	McMaster University, Canada
<i>A near infrared view of young planets in their natural habitat</i>	2021	workshop	“Planet-forming Disks: From Surveys to Answers”, Leiden, Netherlands
<i>Studying planet formation with high-resolution, near infrared surveys</i>	2021	colloquium	University of Jena, Germany
<i>An infrared view of the cradles of planet formation</i>	2020	colloquium	University of Hertfordshire, UK
<i>DESTINYs first results - a close low-mass companion to <i>ET Cha</i></i>	2020	seminar	MPIA Heidelberg, Germany
<i>Imaging the cradles of planet formation</i>	2020	colloquium	Universidad de Chile, Chile
<i>Imaging the cradles of planet formation</i>	2020	colloquium	Universidad de Valparaiso, Chile
<i>Exploring the cradles of planet formation</i>	2019	seminar	Caltech, Pasadena, USA
<i>Exploring the cradles of planet formation</i>	2019	colloquium	JPL, Pasadena, USA
<i>The SPHERE disk GTO program - overview and updates</i>	2019	workshop	Marseille, France
<i>Scattered light observations of circumstellar disks with extreme adaptive optics systems</i>	2018	conference	“Spirit of Lyot”, Tokyo, Japan
<i>SPHERE upgrades - a disk perspective</i>	2018	workshop	“SPHERE upgrade workshop, Grenoble, France
<i>Circumstellar Disks in the Era of SPHERE</i>	2018	workshop	“Core2Disk”, Paris, France
<i>Circumstellar Disks in the Era of SPHERE</i>	2017	colloquium	CAUP Porto, Portugal
Contributed Talks (selected):			
<i>DESTINYs: The largest near-infrared survey of planet-forming disks with extreme adaptive optics</i>	2023	conference	Irish National Astronomy Meeting, Cork, Ireland
<i>SPHERE-DESTINYs: Imaging the cradles of planet formation</i>	2022	conference	“Spirit of Lyot”, Leiden, Netherlands
<i>Imaging the cradles of planet formation with SPHERE-DESTINYs</i>	2022	conference	“The Sharpest Eyes on the Sky”, Exeter, UK
<i>The Young Suns Exoplanet Survey: Imaging infant planets to young, solar analogs</i>	2021	conference	EAS meeting, Leiden, Netherlands
<i>Two disks and a planet? - An unexpected discovery in the <i>CS Cha</i> system</i>	2019	conference	“Planet formation and Evolution”, Rostock, Germany
<i>Scattered light gaps in the <i>HD97048</i> transition disk</i>	2016	conference	NOVA meeting, Leiden, Netherlands
<i>A lucky imaging multiplicity study of exoplanet host stars</i>	2015	seminar	ESA-ESTEC, Noordwijk, Netherlands
<i>Orbital motion of substellar companions</i>	2013	conference	“Brown Dwarfs come of Age”, Fuerteventura, Spain
<i>Deep AO imaging of substellar companions in beta pic</i>	2011	conference	“Planet Formation and Evolution”, Göttingen, Germany