

CURRICULUM VITAE

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Ludwig-Maximilians University (LMU) Munich, Faculty of Physics
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EDUCATION AND ACADEMIC APPOINTMENTS

LMU Munich , Physicist, faculty member (Akademischer Rat auf Lebenszeit)	since 2023
LMU Munich , Research scientist (Akademischer Rat auf Zeit)	Jan 2018 — Jun 2022
Argonne National Laboratory , Postdoctoral researcher	2016 — 2018
KICP University of Chicago , Associate fellow	
LMU Munich , Postdoctoral researcher	July 2015 — Dec 2015
LMU Munich , PhD in Astrophysics, <i>magna cum laude</i> Thesis: <i>Galaxy Cluster Cosmology</i> , Advisor: Prof. Dr. J. Mohr	2011 — 2015
LMU Munich , Diploma in Physics, <i>with highest honors</i> Thesis: <i>The Dark Higgs Portal</i> , Advisor: Prof. Dr. S. Hofmann	2005 — 2011
ENSPG Grenoble (ERASMUS exchange student)	2007/2008

RESEARCH INTERESTS

- Analysis of cosmological survey data (South Pole Telescope, Dark Energy Survey, eROSITA, *Euclid*, Rubin/LSST, CMB-S4)
- Galaxy cluster cosmology and astrophysics, gravitational lensing
- Structure formation and numerical cosmological N -body and hydrodynamic simulations
- Statistics and Machine Learning: Bayesian parameter inference, Gaussian process interpolation for emulators, neural networks for source finding

MANAGEMENT AND LEADERSHIP ACTIVITIES

Coordinator of the Astrophysics Masters program at LMU	since 2024
Member of the Dark Energy Survey publication board	since 2024
<i>Euclid</i> consortium: Co-lead of Cluster Likelihood work package	since 2024
Co-convenor of the DES Clusters working group (Dark Energy Survey)	2020—2024
Diversity, Equity, Inclusion committee (Dark Energy Survey)	2021—2023
Co-lead of the DES cluster cosmology analysis team (Dark Energy Survey)	2019/2020
Co-lead of the DESxCMB cluster analysis team (Dark Energy Survey)	2019–2021

SELECT ACTIVITIES

Lead organizer for international workshop at MIAPbP (Garching, Germany) https://www.munich-iapp.de/cosmology22	2022
ORIGINS—Cluster of Excellence https://www.origins-cluster.de/en/ Large-Scale Structure, Dark Energy, Dark Matter	since 2018
Part of OC of Argonne HEP <i>Young Scientist Symposium Series</i>	2017

Journal Referee (ApJ, A&A, JCAP, MNRAS)

since 2015

INTERNATIONAL COLLABORATIONS

Euclid consortium	Since 2020
Next-generation optical/NIR space-based cosmological survey	
CMB-S4 collaboration	since 2016
Next-generation millimeter-wave cosmological survey	
Vera C. Rubin/LSST Dark Energy Science Collaboration (DESC)	since 2016
Next-generation optical cosmological survey	
Dark Energy Survey collaboration	since 2013
State-of-the-art optical cosmological survey	
South Pole Telescope collaboration	since 2011
State-of-the-art millimeter-wave cosmological survey	
eROSITA DE consortium	2012 – 2015; 2018 – 2022
Leading X-ray cosmological survey (early data analysis)	

TALKS AND PRESENTATIONS**Invited Talks: Conferences & Colloquia**

Physics Colloquium, Ruhr-Universität Bochum, Germany	2024
20th Rencontres du Vietnam	2024
<i>29th International Symposium on Particles, Strings, and Cosmology (PASCOS)</i>	
Noirmoutier, France	2024
<i>Exploring the Dark Side of the Universe – Tools</i>	
ESO, Garching, Germany	2024
<i>Munich Joint Astronomy Colloquium</i>	
Institut Pascal, Paris-Saclay, France	2022
<i>AstroParticle Symposium 2022</i>	
Flatiron Institute, New York City, USA	2022
<i>Sunyaev-Zel'dovich Science in the 2020s: Connecting Theory, Simulations, and Observations</i>	
ESA (ESAC) Madrid, Spain	2021
<i>A Multi-Wavelength View of Galaxy Clusters</i>	
LSST-Athena synergies workshop	2021
Trieste, Italy	2020
<i>Dissecting Cluster Cosmology</i> (postponed due to Covid-19 pandemic)	
Sexten CfA, Italy	2020
<i>Hot Topics in Astrophysics II</i> (cancelled due to Covid-19 pandemic)	
University Observatory Munich (USM/LMU), Germany	2020
<i>Institute Colloquium</i>	
APC Paris, France	2019
<i>Towards Coordination of the European CMB program</i>	
Sexten CfA, Italy	2019
<i>Tracing Cosmic Evolution with Galaxy Clusters</i>	
University of Sussex, UK	2019
<i>Astronomy Colloquium</i>	

ICTS Bangalore, India <i>Cosmology — The Next Decade</i>	2019
Jena University, Germany <i>German Long Wavelength Consortium Annual Assembly</i>	2018
Kavli Institute for Cosmology, Cambridge, UK <i>Consistency of cosmological datasets: Evidence for new physics?</i>	2018
Max Planck Institute for Astrophysics, Germany <i>Return of de Sitter II</i>	2013

Select Invited Talks: Seminars

Universität Innsbruck, Austria <i>Joint Institute Seminar</i>	2024
University of Cambridge, UK <i>Cosmology Lunch</i>	2023
Institut d'Astrophysique Spatiale, Orsay, France <i>Cosmo-seminar</i>	2022
University of Trieste, Italy <i>Astrophysics Seminar</i>	2020
MIT, Cambridge, USA <i>Astronomy Lunch talk</i>	2020
University of Michigan, Ann Arbor, USA <i>Astronomy Seminar</i>	2017
CfA Harvard, Cambridge, USA <i>Galaxies & Cosmology Seminar</i>	2016
Fermilab, Batavia, USA <i>Astrophysics Seminar</i>	2016
Max Planck Institute for Astrophysics (MPA), Garching, Germany <i>High Energy seminar</i>	2015
Max Planck Institute for Extraterrestrial Physics (MPE), Garching, Germany <i>Optical and Interpretative Astronomy (OPINAS) seminar</i>	2015

Select Contributed Talks: Conferences and Workshops

<i>Frontiers in in Cosmology and Gravitational Physics</i> , Portsmouth, UK	2024
<i>Observing the mm Universe</i> , Grenoble, France	2023
Neutrino Cosmology Day, Garching, Germany	2022
<i>mm Universe @ NIKA2</i> , Rome, Italy (remote)	2021
<i>KICC 10th Anniversary Symposium</i> , Cambridge, UK	2019
<i>CMB in Germany</i> , MPA Garching, Germany	2018
<i>Clusters 2017</i> , Santander, Spain	2017
<i>COSMO-16</i> , Ann Arbor, USA	2016
<i>SnowCluster</i> , Snowbird Utah, USA	2015
<i>Cosmology with galaxy clusters in the XXI century</i> , Madrid, Spain	2014

OUTREACH

Guest at SPACETIME TV show	2024
Workshop for school teachers in science <i>Akademie für Lehrerfortbildung und Personalführung, Dillingen</i>	2024
Café & Kosmos cafeundkosmos.de	2024
Adler Planetarium, Chicago, adlerplanetarium.org <i>Astronomy Conversations</i>	throughout 2017