# CURRICULUM VITAE Dr. rer. nat. Sebastian Bocquet

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Ludwig-Maximilians University (LMU) Munich, Faculty of Physics Universitäts-Sternwarte, Scheinerstr. 1, 81679 München, Germany

#### **EDUCATION AND ACADEMIC APPOINTMENTS**

LMU Munich, Habilitation in Astrophysics	Oct 2025
LMU Munich, Physicist, faculty member (Akademischer Rat auf Lebenszeit)	since 2023
LMU Munich, Research scientist (Akademischer Rat auf Zeit)	2018 – 2023
Argonne National Laboratory, Postdoctoral researcher KICP University of Chicago, Associate fellow	2016 – 2018
LMU Munich, Postdoctoral researcher	Jul 2015 – Dec 2015
<b>LMU Munich</b> , PhD in Astrophysics, <i>magna cum laude</i> Thesis: <i>Galaxy Cluster Cosmology</i> , Advisor: Prof. Dr. J. Mohr	2011 – 2015
<b>LMU Munich</b> , 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
Euclid consortium: Co-lead of Cluster Likelihood work package	since 2024
Co-convener 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) <a href="https://www.munich-iapp.de/cosmology22">https://www.munich-iapp.de/cosmology22</a>

2022

# Curriculum Vitae - Dr. Sebastian Bocquet

ORIGINS-Cluster of Excellence <a href="https://www.origins-cluster.de/en/">https://www.origins-cluster.de/en/</a> Large-Scale Structure, Dark Energy, Dark Matter	since 2018
Part of OC of Argonne HEP Young Scientist Symposium Series	2017
Journal Referee (ApJ, A&A, JCAP, MNRAS, PRD)	
INTERNATIONAL COLLABORATIONS	
Euclid consortium Next-generation optical/NIR space-based cosmological survey	since 2020
CMB-S4 collaboration Next-generation millimeter-wave cosmological survey	since 2016
Vera C. Rubin/LSST Dark Energy Science Collaboration (DESC) Next-generation optical cosmological survey	since 2016
Dark Energy Survey collaboration State-of-the-art optical cosmological survey	since 2013
South Pole Telescope collaboration State-of-the-art millimeter-wave cosmological survey	since 2011
eROSITA DE consortium Leading X-ray cosmological survey (early data analysis)	2012 – 2015; 2018 – 2022
TALKS AND PRESENTATIONS	
Invited Talks: Conferences & Colloquia	
Sexten Center for Astrophysics, Italy Tracing Cosmic Evolution with Galaxy Clusters V	2025
KICP Chicago, USA mm Universe 2025	2025
Physics Colloquium, Ruhr-Universität Bochum, Germany	2024
Main Colloquium, MPIfR, Bonn, Germany	2024
Institut Pascal, Paris-Saclay, France AstroParticle Symposium 2024	2024
20th Rencontres du Vietnam 29th International Symposium on Particles, Strings, and Cosmology (PA	2024 (ASCOS)
Noirmoutier, France Exploring the Dark Side of the Universe – Tools	2024
ESO, Garching, Germany Munich Joint Astronomy Colloquium	2024
Institut Pascal, Paris-Saclay, France AstroParticle Symposium 2022	2022
Flatiron Institute, New York City, USA Sunyaev-Zel'dovich Science in the 2020s: Connecting Theory, Simulation	2022 ons, and Observations
ESA (ESAC) Madrid, Spain A Multi-Wavelength View of Galaxy Clusters	2021
LSST-Athena synergies workshop	2021

# Curriculum Vitae – Dr. Sebastian Bocquet

Trieste, Italy  Dissecting Cluster Cosmology (postponed due to Covid-19 pandemic)	2020
Sexten Center for Astrophysics, Italy  Hot Topics in Astrophysics II (cancelled due to Covid-19 pandemic)	2020
University Observatory LMU Munich, Germany Institute Colloquium	2020
APC Paris, France Towards Coordination of the European CMB program	2019
Sexten Center for Astrophysics, Italy Tracing Cosmic Evolution with Galaxy Clusters IV	2019
University of Sussex, UK Astronomy Colloquium	2019
ICTS Bangalore, India Cosmology – The Next Decade	2019
Jena University, Germany German Long Wavelength Consortium Annual Assembly	2018
Kavli Institute for Cosmology, Cambridge, UK  Consistency of cosmological datasets: Evidence for new physics?	2018
Max Planck Institute for Astrophysics, Germany Return of de Sitter II	2013
Select Invited Talks: Seminars	
Universität Innsbruck, Austria  Joint Institute Seminar	2024
University of Cambridge, UK Cosmology Lunch	2023
Institut d'Astrophysique Spatiale, Orsay, France Cosmo-seminar	2022
University of Trieste, Italy Astrophysics Seminar	2020
MIT, Cambridge, USA Astronomy Lunch talk	2020
University of Michigan, Ann Arbor, USA Astronomy Seminar	2017
CfA Harvard, Cambridge, USA Galaxies & Cosmology Seminar	2016
Fermilab, Batavia, USA Astrophysics Seminar	2016
Max Planck Institute for Astrophysics (MPA), Garching, Germany High Energy seminar	2015
Max Planck Institute for Extraterrestrial Physics (MPE), Garching, Germany Optical and Interpretative Astronomy (OPINAS) seminar	2015
Select Contributed Talks: Conferences and Workshops	
Cosmology on the Steep Rise. Sexten Center for Astrophysics. Italy	2025

# Curriculum Vitae – Dr. Sebastian Bocquet

Frontiers in Cosmology and Gravitational Physics, Portsmouth, UK	2024
Observing the mm Universe, Grenoble, France	2023
Neutrino Cosmology Day, Garching, Germany	2022
mm Universe @ NIKA2, Rome, Italy (remote)	2021
KICC 10th Anniversary Symposium, Cambridge, UK	2019
CMB in Germany, MPA Garching, Germany	2018
Clusters 2017, Santander, Spain	2017
COSMO-16, Ann Arbor, USA	2016
SnowCluster, Snowbird Utah, USA	2015
Cosmology with galaxy clusters in the XXI century, Madrid, Spain	2014
OUTREACH	
OUTREACH Wilhelm-Förster Sternwarte, Berlin	2025
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Wilhelm-Förster Sternwarte, Berlin  To the Big Bang and back	
Wilhelm-Förster Sternwarte, Berlin  To the Big Bang and back Astronomy on Tap, Munich	2025
Wilhelm-Förster Sternwarte, Berlin  To the Big Bang and back Astronomy on Tap, Munich  Guest at SPACETIME TV show  Workshop for school teachers in science	2025