PROF. DR. LUCAS LABADIE

Curriculum Vitae

Institut für Astrophysik
Universität zu Köln
labadie@ph1.uni-koeln.de
https://astro.uni-koeln.de/labadie

PERSONAL INFORMATION

Born March 5th, 1977
French, Italian citizenship
Languages: French, Italian, English, German, Spanish

EDUCATION AND DEGREES

2009 **French Habilitation at University of Grenoble to apply to assistant professorship**

2006 **PhD in Physics and Astronomy, Université Jospeh Fourier, France**
Title: Integrated Optics in the thermal infrared – application to nulling interferometry for the search of Earth-like planets

2000 **MSc. in Physics, Optics and Image processing, Université of Marseille, France**

1999 **Engineering Degree in Applied Physics, National School of Physics of Marseille, France**
Now *Ecole centrale de Marseille*

PROFESSIONAL EXPERIENCE

2011 - present **Tenured professor ("Universitätsprofessor") for Experimental Physics**
Insitut für Astrophysik, Universität zu Köln

2009 - 2011 **Postdoctoral Consolider-GTC Research fellow with Prof. R. Rebolo**
Instituto de Astrofisica de Canarias, Teneriffe, Spain

2006 - 2009 **Postdoctoral researcher with Prof. H.-W. Rix and Dr. Th. Herbst**
Max Planck Institute for Astronomy, Heidelberg, Germany

2002 - 2006 **Graduate student and teaching assistant**
University of Grenoble, France

2001 - 2002 **ESA Young Graduate optical scientist**
European Space Agency, ESTEC, Nordwijk, The Netherlands

2000 - 2001 **Industry engineer**
Matra-Nortel, Paris, France

RESEARCH AREAS

Protoplanetary disks, Low- to high-mass young stellar objects, Star and planet formation, Binary stars and sub-stellar companions, Optical and Infrared Interferometry, Infrared instrumentation for the ELT, Astro-photonics and integrated optics

RESEARCH FUNCTIONS AND ACTIVITIES

2020 – 2021 Feature Editor on Astrophotonics, Applied Optics (OSA)

2019 – 2020 Topical Team Member for the ESA Voyage-2050 Strategic Plan

2019 Co-author of the LIFE mission proposal
Call for white papers for Voyage 2050

2018 – now Co-Investigator of the METIS/ELT first-light instrument project

2017 – now Core member of the VLTI/GRAVITY Science working group on Young Stellar Objects
The GRAVITY Young Stellar Object survey

2016 – now Associate member of the MATISSE Science Team

2016 – now Co-Investigator and then P.I. of the DFG-funded NAIR/APREXIS project

2015 Organizer and chair of the VLTI Summer School

2014 – 2018 Spokesperson and co-PI of the BMBF-funded ALSI project

2013 Member of the Kick-Off team of the *Planet Formation Imager* project

2012 – 2018 Member of the *Future of Interferometry* Working Group

2013 Core participant to the "Exploring Habitable Worlds beyond our Solar System" proposal
Call for ESA L-class missions

2012 – 2023	Assessor for international funding agencies (ANR, DFG, NWO, ARC)
2010	Core proposer of the NEAT mission *M-class ESA Cosmic Vision call*
2009 – 2011	Member of the CANARICAM Science Team (CCST)
2008 – now	Reviewer for refereed journals (OSA, Nature, MNRAS, A&A, ApJ, RMAs, IEEE)
2007	Core proposer of the Darwin mission *ESA Cosmic Vision call*

COMMITTES

2025-2027	Member of the Astronomy Working Group (AWG) of the European Space Agency (3-year mandate)
2024	Member and President of the Science Council of the Jean-Marie Mariotti Center (5-year mandate)
2024	Co-chair and SOC member of: *GRAVITY+ Workshop: Impact on star and planet formation*
2024	External referee for the "Virtuelle Hochschule Bayern" (VHB)
2023 – 2024	Head of the Search Committee for a Faculty professorship – *Universität zu Köln*
2020 – 2021	Member of the ESO Observing Program Committee (OPC)
2015 – now	Head of the Master of Physics Examination Board – *Universität zu Köln*
2014 – now	Chair and co-chair of various SPIE and CLEO international conferences (>6)
2018	Rectorate representative in the search committees of the Faculties of Medicine and Arts & Humanities *Universität zu Köln*
2016 – now	Member of the Advisory Committee, Bonn Cologne Graduate School (BCGS)

AWARDS AND GRANTS

2005	European Space Agency External Fellowship	*declined*
2008 – now	>100 h of observing time with VLT, VLTI, WHT	
2009	Tenure-track 5-year staff position, University of Porto	*declined*
2017 – now	Grant: The Warm Calibration Unit of METIS (PI)	2.8 M€
2014 – 2018	Grant: Advanced Laser-writing for Stellar Interferometry (PI)	0.4 M€
2016 – 2020	Grant: NAIR – Novel Astronomical Instrumentation through Photonic Reformatting (PI)	0.4 M€
2023 – 2026	Grant: NAIR-APREXIS (PI and Spokesperson)	1.2 M€
2023 – 2027	Grant: A high-resolution view of massive stars in peculiar habitats (PI)	0.5 M€

TEACHING AND OUTREACH

2012 – now	Lectures in Experimental Physics and Astrophysics in BSc and MSc (here); Blackboard lectures, MPIfR; Lecturer at the Astrophotonics Summer School, September 2012, Potsdam; Invited lecturer at the "Ecole Evry Schatzmann 2024".
2012 – now	Main advisor for several completed doctoral dissertations (>5), master (>10), and bachelor (>15) theses (here); Advisor of 10 Post-docs: Peter Schuller, Rebekka Grellmann, Tarun Sharma, Jan Tepper, Nicola Baccichet, Monika Rutowska, Florian Peissker, Yigit Dallilar, Vipin Kumar, Emma Bordier.
2012 – now	Outreach activities (Astronomy on Tap, Cologne; Public Talk on the Nobel Prize 2019, Bonn; Participation to a TV documentary (ARTE); Press releases in general newspapers and websites (>5).

PUBLICATIONS AND MAIN INVITED TALKS

271 refereed and non-refereed publications, 3794 citations, H-index: 32 (Google scholar) – visit link *publications*

2013: Horizon 2020 Workshop – Session Mission Concepts, Madrid, Spain
2013: "Improving the performances of current optical interferometers and future designs", OHP Observatory, France
2014: "Fiber Optics in Astronomy IV", Cambridge, MA, USA
2016: SPIE Review "Astrophotonics in the context of optical/IR interferometry", Edinburgh, UK
2017: "The potential of 3-5 μm integrated optics for VLTI interferometry", VLTI Community Days, ESO-Garching, Germany
2017: "YSOs and their disk(s) at high-angular resolution at optical and IR wavelengths", Ruhr-Universität Bochum, Germany
2019: Public talk "Exoplaneten: von 51 Peg b zur Suche nach Leben im All", Universität Bonn, Germany
2021: "The GRAVITY view of young protoplanetary disks inner regions", Core to disks, Orsay, France
2022: SPIE Review "A report on the status of astrophotonics for optical/IR interferometry and beyond", Montreal, Canada
2023: "Future instrumental perspectives for the observational study of young stars", Cargèse, France
2024: "The GRAVITY view of young protoplanetary disks inner regions", Ringberg Castle Workshop, Germany