

Curriculum vitae

Professor Guilaine Lagache
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POSITION AND EDUCATION

2014 Senior Astronomer (CE2 grade), Corps National des Astronomes et Physiciens
Laboratoire d'Astrophysique de Marseille (LAM), Aix-Marseille University, France
2009 - 2013 Senior Astronomer, Institut d'Astrophysique Spatiale (IAS), France
2000 - 2009 Tenure Assistant Astronomer, IAS, France
2008 HDR (D. Sc.) in Astrophysics, Paris-XI University
1995 - 1998 PhD Astrophysics, IAS, Paris-XI University

FELLOWSHIPS AND AWARDS

2021 "Silver medal" award of the CNRS
2018 - 2023 ERC Adv. Grant "CONCERTO"
2018 Gruber 2018 Cosmology Prize awarded to the Planck Team and PIs Mandolesi and Puget
2018 - 2021 A*MIDEX grant for the CONCERTO project
2015-2018 Co-PI of "NIKA2Sky" funded by the "Agence Nationale de la Recherche" (ANR)
2012 Madame Victor Noury Prize, Grand Prix de l'Académie des Sciences
2008 "Young researcher" Prize of the French Astronomical Society
2005 - 2006 "Distinguished Visiting Associate In Physics", IPAC/Caltech, Pasadena
2006 - 2009 PI of D-SIGALE (<http://www.ias.u-psud.fr/dsigale/>) funded by the ANR
Since 2003 Regular funding for scientific projects, travel and hardware from INSU programs (PNG, PNC, PNCG), CSAA, Labex and CNES
1998 – 2000 CNES post-doctoral fellowship

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

I have supervised 9 PhD students and 13 postdoctoral fellows (and 10 Master students). The list of the individual, and current position, is: Alexandre Beelen (tenured assistant astronomer, LAM), Matthieu Béthermin (tenured assistant astronomer, LAM), Benjamin Bertincourt (senior data engineer, HelloFresh, New York), Longji Bing (PhD Dec 2022, applying for post-docs), Karina Caputi (professor, Kapteyn Astronomical Institute, Groningen), Morgane Cousin (R&D engineer, STILOG I.S.T, La Ciotat), Alessandro Fasano (post-doctoral fellow, LAM), Nestor Fernandez-Conde (Managing Director, InOpinia, Paris), Abhishek Maniyar (post-doctoral scholarship, Stanford), Athanasia Gkogkou (PhD, LAM), Wenkai Hu (post-doctoral fellow, LAM), Delphine Marcillac (in charge of innovation and entrepreneurship, Ecole Polytechnique, Palaiseau), Aurélie Penin (senior data scientist, SixFoisSept, Paris), Paolo Serra (senior data scientist, Take-Two Interactive Software, New York), Maud Sorel (Physics teacher, France), Dylan Tweed (data scientist, Capgemini Engineering, Toulouse), Niraj Welikala (research fellow, ROE, Edinburgh), Mathilde Van Cuyck (PhD, LAM).

TEACHING ACTIVITY AND OUTREACH

Teaching duties represent 20% of my time. I am teaching at the Aix-Marseille University, for undergraduate and graduate students. I am also active in outreach activities. For instance, I conducted a project on "Women in Science" with a hundred of students aged 13-14 years (9th Grade) following a preparatory work based on the movie "Hidden figures".

ORGANISATION OF SCIENTIFIC MEETINGS (selection)

2021-2023 SOC and LOC member of the conference "From the Galaxy to the Big Bang : Celebrating Jean-Loup Puget's contribution to Astrophysics and Cosmology" Banuyls-sur-mer, June 2023
2022-2023 SOC of the conference "Present and Future of Line-Intensity Mapping", MPA, April 2023
2020-2021 Organisation of a summer international school PNCG-PCMI, Banuyls-sur-mer
"The Interstellar Medium of Galaxies, from the Epoch of Reionization to the Milky Way"
July 2019 Organisation of the 13th Edition of the Marseille Cosmology Conference Series, "Lines in

the Large Scale Structure: the promise of intensity mapping” (<https://l2s2.sciencesconf.org/>)
Chair of the SOC

May 2018 Organization of the workshop SKA: “Extraordinary Energy and Big-Data challenges” LAM, Marseille

SELECTED COMMITTEE SERVICE AND COMMISSIONS OF TRUST

Since 2022 AS SKA-LOFAR : member of the board
2021-2022 Member of the Science and Engineering Advisory Committee (SEAC) of SKA
20-2022 Member of the national CNRS-INSU commission of Astronomy & Astrophysics, a board in charge of selecting the best national projects for funding (scientific secretary)
2018-2022 Member of the Scientific Advisory Council of IRAM
2017 Member of the faculty recruiting committee at the ENS, France (recruitment of Nick Kaiser)
2017 Member of the High Council for Evaluation of Research and Higher Education committee for the Lagrange laboratory
2015-2016 Member of the Ad hoc committee called by the French governing bodies to define a joint roadmap on the future of Cosmic Microwave Background research
2016-2018 Chair-person of the LAM Scientific Council
2014 Member of the board of the CNRS-INSU science pluri-annual strategic planning
2008-2012 Member of the CoNRS Section 17 (national evaluation and recruitment committee)
2006-2010 Member of the Astronomy Working Group of the French Space Agency (CNES)
2007-2010 Member of the "Spitzer Science User Panel" (European representative)
2008-2009 Member of the board of the CNRS-INSU science pluri-annual strategic planning
Chair of the working group "Ground and Space experiment synergies"
2002-2006 Member of the board of the French Astronomical Society
Since 2007 Reviewer for research proposals for:
the French national research agency (ANR Blanc and Chaires d'excellence), the Lagrange Institute (IDEX), the NSERC, the DIM-ACAV, INSU and the ERC
Since 2007 Member of 17 PhD and HDR juries
Since 2005 Member of Time Allocation Committees: Spitzer, CFHT, IRAM, Opticon, ALMA

PUBLICATIONS

- **As of Jan 2022: 360 publications** published in refereed journal with more than 79,430 citations.
- 26 invited presentations in international conferences, and 42 invited seminars since 1997
- >30 oral presentations in international workshops or conferences.

MAJOR COLLABORATIONS AND TEAM MANAGEMENT

- PI of the **CONCERTO** project (<https://mission.lam.fr/concerto/>).
- **NIKA2/IRAM** camera: core team member. Co-coordinator of the Guaranteed Time Project on Deep Cosmological Surveys (300 hours) and management of the team working on deep field surveys. Participation to the observational campaigns at the IRAM 30m telescope and to the commissioning of the NIKA2 camera.
- French **SKA** White Book: coordination of the science themes "early Universe, cosmology and large-scale structures" and "extra-galactic astronomy" (about 15 contributions).
- Leading role in the **Planck** collaboration, and in particular in the HFI consortium : L1 operation, L2 data reduction pipeline (in particular photometric calibration), L3 validation, & science exploitation (leading the CIB analysis). Core team member, HFI associate and Planck Scientist. Coordinator and team management of the working group dedicated to the CIB (WG6.6).
- Member of the executive committee of the **Herschel** Open Time Key Project H-ATLAS (2008 - 2011), "The Herschel Astrophysical Terahertz Large Area Survey" (600 hours).
- Associated Member of the Herschel/SPIRE Guaranteed Time Observation, high-z "Science Advisory Group" (900 hours).
- Member of the **Spitzer**/MIPS GTO deep survey team - PI/co-PI of three Spitzer/IRS Open Time Proposals (for a total of 404 hours).
- Member of the **Archeops** CMB collaboration (main contribution on photometric calibration and data reduction).
- Leading role in the **FIRBACK/ISOPHOT** collaboration -- FIRBACK was the 8th largest ISO observational program (PI: Jean-Loup Puget). Responsible of the management of the collaboration.

Alexandre Beelen

Associate Astronomer

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Present Occupation

07/2020 – **Associate Astronomer**, *Laboratoire d'Astrophysique de Marseille*, Marseille, France

Past Occupations

2009 – 2020 **Associate Astronomer**, *Institut d'Astrophysique Spatiale*, Orsay, France

2007 – 2009 **Post-doc**, *Institut d'Astrophysique Spatiale*, Orsay, France

G. Lagache (IAS, Orsay)

2004 – 2006 **Post-doc**, *Max-Planck-Institut für Radioastronomie*, Bonn, Allemagne

F. Bertoldi (Uni-Bonn, Bonn)

2001 – 2004 **PhD**, *Institut d'Astrophysique Spatiale*, Orsay, France

'Gas and dust in high redshift quasars' – Advisor : P. Cox (IAS, Orsay)

Responsibilities

2015 – 2021 Member of the CSAA-ANO5 subcommittee

2014 – 2019 Member of the IRAM Time Allocation Committee

2012 – 2019 *Head of the ANO5 labeled service IGLO*

2005 – Referee for MNRAS & A&A

Supervision

2020 – Co supervision of Mathilde Van Cuyck PhD Thesis, LAM

2020 – Co supervision of Diana Ismail PhD Thesis, LAM

2019 – 2021 Co supervision of Longji Bing PhD Thesis, LAM

2015 – 2017 *Co supervision of Chentao Yang PhD Thesis (CAS)*, IAS

2012 – 2014 Co supervision of Veeresh Singh Postdoc (CEFIPRA), IAS

3 mois 2009 Co supervision of Yiping Ao Postdoc Ao, IAS

2005 – 2006 *Co supervision of Manuel Aravena PhD Thesis*, Université de Bonn

Research Projects

2019 – Member of the CONCERTO project

2017 – Member of the z-GAL project

2011 – Member of the NIKA consortium

2011 – 2015 Co-PI of a CEFIPRA Indo-French collaboration

2008 – 2018 AS of the SPIRE consortium; Member of the H-ATLAS and HerMes consortia

2007 – 2017 Member of the Planck/HFI consortium

Teaching

2021 – Fonctionning of computers, tutorials

AMU, L1en2ans Descartes

2020 – Geometrical Optics classes

AMU, L1 Portail Descartes

2015 *Continuum Observations & Sciences* classes

IRAM Summer School

2014 – 2016 Coordinator of the Data Analysis module

M2R AAIS

2009 – 2019 Scientific Computing and Data Analysis classes

M2R AAIS & M2R NPAC

2005 Teaching Assistant for bolometer lectures

IRAM Summer School