






Curriculum Vitae

Marjorie Decleir, PhD

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 European Space Agency (ESA)
 ESA Office, Space Telescope Science Institute
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Professional experience

Current position (Since Dec 2023)	Research Fellow at the European Space Agency (ESA) <i>ESA Office, Space Telescope Science Institute, Baltimore (MD, USA)</i>
Postdoc (Nov 2019-Nov 2023)	Postdoctoral researcher in the ISM* group <i>Space Telescope Science Institute, Baltimore (MD, USA); supervisor: Karl Gordon</i>
PhD (Oct 2015-Nov 2019)	PhD researcher / FWO (Flemish Research Foundation) fellow <i>Ghent University (Belgium); supervisors: Maarten Baes and Ilse De Looze</i>
Internship (July-Aug 2013)	Intern <i>Astronomical Observatory of Belgrade (Serbia); supervisors: Milan Stojanović and Monika Jurkovic</i>

Education

2015-2019	PhD in Astronomy, Ghent University (Belgium) Degree of “Doctor of Science: Astronomy” obtained on Nov 4, 2019 <i>Doctoral dissertation: DustKING: revealing the dust attenuation in nearby galaxies.</i>
2013-2015	Master in Physics and Astronomy (great distinction), Ghent University (Belgium) <i>Master’s thesis: Stars and dust in the edge-on spiral galaxies NGC5866 and NGC5746.</i>
2010-2013	Bachelor in Physics and Astronomy (great distinction), Ghent University (Belgium) <i>Bachelor’s project: Spectroscopy with the eShel-spectrograph.</i>

Competencies

Languages	Dutch (native), English (fluent), French (basic), Spanish (basic)	
General software	Operating systems	macOS, Linux-Ubuntu, Windows
	Programming	Python (advanced), C++ (basic), IDL (basic), SQL (basic)
	Software version control	Git, GitHub
	Office suites	LaTeX, Word, PowerPoint, Excel
Astronomical software	Data reduction	JWST, HST, HEASoft, Spextool (IDL), IRAF, MaxImDL, ESO-MIDAS
	Observing tools	HST/JWST APT, HST/JWST ETC
	SED fitting	CIGALE, BEAST
	Radiative transfer	SKIRT, fitSKIRT
	Visualization	DS9, FV
	Dust modelling	DustEM

Key achievements

Additional information on these and other accomplishments is provided in the supplement in the subsequent pages.

Publications	<p>Focused on interstellar dust in the Milky Way and nearby galaxies, using a variety of observations across many wavelength ranges, and different fitting and modelling techniques, with a range of different collaborators:</p> <ul style="list-style-type: none"> ✓ 18 published refereed papers ✓ 5 as first author (including 2 proceedings)
Observations	<p>Extensive experience in writing successful proposals, (Phase II) observations preparation, and data reduction across a wide range of ground-based and space telescopes and instruments, including in optical and NIR wavelengths:</p> <ul style="list-style-type: none"> ✓ 50+ observing nights at telescopes in Chile, USA, Greece, Serbia and Belgium, including at the MPG/ESO 2.2m, SMARTS, and WIYN telescopes ✓ 7 successful observing proposals as PI (2 HST, 2 JWST, 3 ground-based) ✓ 16 successful observing proposals as co-I (including 5 HST, 8 JWST) ✓ Reduced and analyzed images and spectra of a wide range of telescopes/instruments, including JWST/MIRI, IRTF/SpeX, HST/STIS, Swift/UVOT, MPG/ESO 2.2m/WFI, SMARTS/CFIM+2K, WIYN/HDI ✓ Analyzed images and spectra of a wide range of telescopes/instruments, including GALEX, SDSS, 2MASS, Spitzer/IRAC and MIPS, Herschel/PACS and SPIRE, JWST/NIRCam grism, JWST/MIRI MRS
Presentations	<p>Well-versed in giving scientific presentations to both expert and broader audiences:</p> <ul style="list-style-type: none"> ✓ 12 invited talks and guest seminars at numerous institutes in Europe and USA ✓ 15+ contributed talks and 8+ poster presentations at conferences and meetings ✓ 15+ outreach talks and activities
Leadership	<p>Demonstrated leadership and supervisory skills, including:</p> <ul style="list-style-type: none"> ✓ PI of the MEAD project (leading a small team of dust experts) ✓ (Co-)supervising an undergraduate student and a postdoc ✓ Supervised a software engineer
Functional	<p>Demonstrated hands-on experience with instrument support for JWST/MIRI:</p> <ul style="list-style-type: none"> ✓ Exposure Time Calculator (ETC) validation for JWST/MIRI Imager ✓ Target Acquisition verification for JWST/MIRI Low Resolution Spectrograph
Organizational	<p>Proven track record of organizational experience, including:</p> <ul style="list-style-type: none"> ✓ LSOC member for ESA Science Workshop (Feb 2025) ✓ SOC member for major dust-focused conference (Nov 2025) ✓ ESA research fellow representative (since 2024) ✓ Organizer and lead of our weekly research group meetings (for 2 years) ✓ Lead organizer of a week-long collaboration meeting (Feb 2024)
Coding	<p>Significant experience in developing open-source data reduction and analysis software:</p> <ul style="list-style-type: none"> ✓ DRESSCode (Data Reduction of Extended Swift Sources Code): automated python pipeline for retrieving, reducing and calibrating images of the Swift UVOT (Ultraviolet/Optical Telescope), tailored to extended sources. The pipeline performs archival data retrieval, sky image generation, astrometric corrections, flux calibrations, and coaddition of multiple exposures. ✓ Several public GitHub repositories for data analysis (e.g., mead, spex_nir_extinction)

CV supplement

Fellowships, grants and awards

Since Dec 2023	ESA Research Fellowship (<i>STScI, Baltimore, MD, USA</i>)
Feb 2023	ALMA-ANID Grant for a 2-year postdoc position (<i>Antofagasta, Chile</i>) – declined in favor of ESA Fellowship
Dec 2022	ESO Fellowship (<i>Santiago, Chile</i>) – declined in favor of ESA Fellowship
Mar 2019	Bronze Galileo Prize (<i>award for strong commitment within the VVS and JVS, Association and Youth Association for Astronomy, Belgium</i>)
2015-2019	FWO (Flemish Research Foundation) PhD Fellowship (<i>Belgium</i>)
July 2015	Armand Pien Prize (<i>award for the best Master's thesis in astronomy, Ghent University, Belgium</i>)

Approved observing and archival proposals

Space and airborne telescopes

JWST, 2 as PI	GO 7715, 35.8 hours, \$234,235 GO 2459, 20.7 hours, \$214,028
JWST, 8 as co-I	GO 8683, 34.5 hours, PI: Hawcroft C. SURVEY 7929, PI: Gordon K. GO 7396, 41.8 hours, PI: Tarantino E. GO 7085, 24.3 hours, PI: Paladini R. GO 5168, 12.5 hours, PI: Gordon K. GTO 4551, 2.9 hours, PI: Gordon K. GO 3429, 24.5 hours, PI: Clark C. GO 2183, 37 hours, PI: Zeegers S.
HST, 2 as PI	GO 17516, 23 orbits, \$110,815 GO 16285, 31 orbits, \$119,425
HST, 5 as co-I	GO 17823, 53 orbits, PI: Van De Putte D. GO 17703, 111 orbits, PI: De Cia A. GO 17488, 9 orbits, PI: Yanchulova Merica-Jones P. GO 17078, 21 orbits, PI: Zeegers S. AR 17057, PI: Clark C.
SWIFT, as co-I	2124203, 12 hours, PI: Clark C.
SOFIA, as co-I	DDT 75_0107, 13 hours, PI: Pendleton Y.

Ground-based telescopes

MPG/ESO 2.2m, as PI	7 nights (visitor mode)
SMARTS 0.9m, as PI	17 nights (visitor mode)
WIYN 0.9m, as PI	13 nights (visitor mode)
NOEMA, as co-I	S25BL, 14 hours, PIs: Jones L., Bot C.

Teaching, supervising and mentoring activities

2025	Supervisor of an REU (Research Experiences for Undergraduates) student (<i>Maria Mitchell Association, Nantucket, MA, USA</i>)
Since 2024	Co-supervisor of a postdoc (<i>STScI, Baltimore, MD, USA</i>)
2023-2024	Mentor of a graduate student (<i>Johns Hopkins University, Baltimore, MD, USA</i>)
2021-2022	Supervisor of a software engineer (<i>STScI, Baltimore, MD, USA</i>)
2018-2019	Teaching assistant for the Master's course "Observational Techniques in Astronomy" (<i>Ghent University, Belgium</i>)
2015-2019	Co-assistant for the observational part of the Bachelor's course "Introduction to Astronomy" (<i>Ghent University, Belgium</i>)
2016	Co-supervisor of a Master's thesis student (<i>University College London, United Kingdom</i>)

Organizational and leadership experience

Since 2024	ESA Research Fellow representative for STScI
2024-2025	Member of Local and Scientific Organizing Committee of ESA-SCI Science Workshop #17 (<i>Feb 2025, Netherlands</i>)
Since 2023	Member of Science Organizing Committee of The Dusty Universe 2025: the fifth pandust conference (<i>Nov 2025, Tucson, AZ, USA</i>)
2023-2024	Lead organizer of WISCI (Webb Investigation of Silicates, Carbons and Ices) collaboration meeting (<i>Feb 2024, STScI, Baltimore, MD, USA</i>)
2022-2024	Building a stronger postdoc community at STScI by organizing bi-weekly social activities, as well as advocating for postdocs within the institute (<i>STScI, Baltimore, MD, USA</i>)
2022-2025	Member of Code of Conduct Committee for ISM* group at STScI
2022-2023	Member of Organizing Committee of WISCI (Webb Investigation of Silicates, Carbons and Ices) collaboration meeting (<i>Apr 2023, Leiden, The Netherlands</i>)
2020-2021	Organizer and lead of the weekly ISM* group meetings (<i>STScI, Baltimore, MD, USA</i>)
2015-2019	Board member of the JVS (Flemish Youth Astronomy Association, Belgium), organizing bi-monthly activities for young amateur astronomers
2011-2015	Board member of the VVN (Student Association for Physics) at Ghent University (Belgium), of which one year as chair, organizing monthly activities for students and the general public

Community services (panels, committees, reviews)

Since 2025	Member of the science definition team for the UVES mission concept
2025	Referee for the "The Astrophysical Journal"
2023	Referee for the "International Conference on Physics, Mathematics and Statistics"
2020	Panel support (as leveler) for the HST cycle 31 panel (<i>remote</i>)
2022	Panelist for NASA's APRA (Astrophysics Research and Analysis) Program (Lab Astro) (<i>remote</i>)
2021-2024	Referee for the "Monthly Notices of the Royal Astronomical Society"
2020	Panel support (as leveler) for the JWST cycle 1 panel (<i>remote</i>)
2017-2019	Referee for the "Bulletin de la Société Royale des Sciences de Liège"
2017	Member of the selection committee for a tenure-track professorship in Astronomy at Ghent University (<i>Belgium</i>)
2015-2019	Member of the First Intervention Team at Ghent University (<i>Belgium</i>)

Science meetings and talks

Invited talks and guest seminars/colloquia

Jul 2026	Invited talk at the symposium “Exploring the aromatic universe in the JWST era” (<i>Western University, London, Canada</i>)
Nov 2025	Invited talk at “The Dusty Universe 2025: the fifth pandust conference” (<i>Tucson, AZ, USA</i>)
Jun 2025	Guest seminar at ESO (European Southern Observatory) (<i>Garching, Germany</i>)
Jun 2025	Guest seminar at Chalmers University of Technology (<i>Gothenburg, Sweden</i>)
Feb 2025	Breakfast seminar at ESTEC (European Space Research and Technology Centre), ESA (European Space Agency) (<i>Noordwijk, The Netherlands</i>)
Mar 2024	Colloquium at Penn State University (<i>State College, PA, USA</i>)
Nov 2023	Guest seminar at ESTEC (European Space Research and Technology Centre), ESA (European Space Agency) (<i>Noordwijk, The Netherlands</i>)
Oct 2021	Invited talk at the “Joint JHU/STScI JWST Pre-Launch Science Symposium” (<i>Baltimore, MD, USA</i>)
Sep 2021	Guest seminar at Ghent University (<i>Ghent, Belgium</i>)
Jul 2019	Invited talk as part of the Inside-Out lecture series (<i>Ghent, Belgium</i>)
Jun 2019	Invited talk at the Sundial Network Midterm Meeting (<i>Ghent, Belgium</i>)
Mar 2019	Guest seminar at the University of Liège (<i>Liège, Belgium</i>)

Contributed talks and posters at conferences or seminar series

May 2025 (talk)	STScI Spring Symposium: Inter+Stellar: Harnessing the Intersection Between Stars and the Interstellar Medium (<i>STScI, Baltimore, MD, USA</i>)
Feb 2025 (talk)	ESA-SCI Science Workshop #17 (<i>Akersloot, The Netherlands</i>)
Apr 2024 (talk)	Science with the Hubble and James Webb Space Telescopes VII: Stars, Gas & Dust in the Universe (<i>Porto, Portugal</i>)
Feb 2024 (talk)	WISCI (Webb Investigation of Silicates, Carbons and Ices) collaboration meeting (<i>STScI, Baltimore, MD, USA</i>)
Jan 2024 (talk)	ESA-SCI Science Workshop #16 (<i>Aranjuez, Spain</i>)
Oct 2023 (talk)	Illuminating the Dusty Universe: A Tribute to the Work of Bruce Draine (<i>Florence, Italy</i>)
Sep 2023 (talk)	Origin and Fate of Dust in Our Universe (<i>Gothenburg, Sweden</i>)
Apr 2023 (2 talks)	WISCI (Webb Investigation of Silicates, Carbons and Ices) collaboration meeting (<i>Leiden, The Netherlands</i>)
Jan 2023 (iposter)	241 st meeting of the American Astronomical Society (<i>Seattle, WA, USA</i>)
Jun 2022 (iposter)	240 th meeting of the American Astronomical Society (<i>Pasadena, CA, USA</i>)
May 2022 (talk)	Talk as part of the Discovery Seminar Series at STScI (<i>remote</i>)
Jun 2021 (talk)	HotSci seminar at STScI (<i>remote</i>)
Oct 2020 (talk)	The Rise of Metals and Dust in Galaxies through Cosmic Time (<i>remote</i>)
Oct 2018 (talk)	Second BINA (Belgo-Indian Network for Astronomy and Astrophysics) workshop (<i>Royal Observatory of Belgium, Brussels, Belgium</i>)
Jun 2018 (poster)	CPHDUST conference (<i>Copenhagen, Denmark</i>)
May 2018 (poster)	NAC (Dutch Astronomers Conference) (<i>Groningen, The Netherlands</i>)
Apr 2018 (poster)	EWASS (European Week of Astronomy and Space Science) (<i>Liverpool, United Kingdom</i>)
Jun 2017 (poster)	EWASS (European Week of Astronomy and Space Science) (<i>Prague, Czech Republic</i>)
May 2017 (talk)	NAC (Dutch Astronomers Conference) (<i>Nijmegen, The Netherlands</i>)
Nov 2016 (talk)	First BINA (Belgo-Indian Network for Astronomy and Astrophysics) workshop (<i>Aryabhata Research Institute of Observational Sciences, Nainital, India</i>)
Sep 2016 (poster)	Multiple Faces of Interstellar Dust: ISM-SPP Workshop (<i>Garching, Germany</i>)
May 2016 (poster)	NAC (Dutch Astronomers Conference) (<i>Nunspeet, The Netherlands</i>)

In addition, I contributed talks and posters to several one-day meetings of the Belgian Physical Society and the Belgian National Fund for Scientific Research contact group between 2016 and 2019.

Professional visits

Jul 2025	Supervising an REU (Research Experiences for Undergraduates) student, Maria Mitchell Association (<i>Nantucket, MA, USA</i>)
Jun 2025	Seminar speaker, and collaboration with Prof. Annalisa De Cia, ESO (European Southern Observatory) (<i>Garching, Germany</i>)
Jun 2025	Seminar speaker, faculty and student interactions, and collaboration with Prof. Matthias Maercker, Chalmers University of Technology (<i>Gothenburg, Sweden</i>)
Feb 2025	Seminar speaker, and collaboration with Dr. Sascha Zeegers, ESTEC (European Space Research and Technology Centre), ESA (European Space Agency) (<i>Noordwijk, The Netherlands</i>)
Mar 2024	Colloquium speaker, faculty and student interactions, and collaboration with Alex Belles, Penn State University (<i>State College, PA, USA</i>)
Jan 2024	Collaboration with Prof. Médéric Boquien, Observatoire de la Côte d'Azur (<i>Nice, France</i>)
Nov 2023	Seminar speaker, and collaboration with Dr. Sascha Zeegers, ESTEC (European Space Research and Technology Centre), ESA (European Space Agency) (<i>Noordwijk, The Netherlands</i>)
Jul 2022	Interstellar institute, Institut Pascal (<i>Paris-Saclay, France</i>)
Jul 2022	Collaboration with Prof. Ilse De Looze, Ghent University (<i>Belgium</i>)
Nov 2017	Collaboration with Prof. Médéric Boquien, University of Antofagasta (<i>Chile</i>)
Jun 2017, Feb 2017, Jun 2016	Collaboration with Prof. Ilse De Looze, University College London (<i>United Kingdom</i>)

Professional development

May 2025	Master class "From proposal to discovery mission" (<i>remote, ESA</i>)
Sep 2024	JWebbinar: What's New in JWST Cycle 4 (<i>remote, STScI</i>)
Jan 2023	Software Carpentry workshop, AAS workshop (<i>Seattle, WA, USA</i>)
Jun 2022	Python and Astropy for Astronomical Data Analysis, AAS workshop (<i>Pasadena, CA, USA</i>)
Mar 2022	Advanced Git training (<i>remote, STScI</i>)
Jan 2022	JWebbinar Workshop: Intro to JWST Data Analysis and Visualization (<i>remote, STScI</i>)
Nov 2021	Data Carpentry workshop: Foundations of Astronomical Data Science (<i>remote, STScI</i>)
Sep 2021	Introductory Git training (<i>remote, STScI</i>)
Jul 2021	International Summer School on the Interstellar Medium of Galaxies, from the Epoch of Reionization to the Milky Way (<i>remote, Programme National de Physique et Chimie du Milieu Interstellaire, and Programme National de Cosmologie et Galaxies of CNRS/INSU</i>)
Jun 2021	Summer School in Statistics for Astronomers (<i>remote, Penn State University</i>)
Mar 2021	Probability with Python (<i>remote, O'Reilly</i>)
May 2020	XSEDE Webinar: Python and Performance (<i>remote</i>)
Mar 2020	Being a Successful Remote Worker (<i>remote, O'Reilly</i>)
Dec 2018	Introduction to statistics with Python (<i>Ghent University, Belgium</i>)
Jul 2017	Let's talk science - workshop on science communication (<i>Ghent University, Belgium</i>)
Jun 2016	NEON/OPTICON observing school (<i>Heraklion and Skinakas Observatory, Crete, Greece</i>)
Jan 2016	Basic Assistant Teacher training (<i>Ghent University, Belgium</i>)
Oct 2015	Introduction to High Performance Computing (<i>Ghent University, Belgium</i>)
Jul 2013	Student Observing Workshop (<i>Astronomical Station of Vidojevica, Serbia</i>)

Outreach activities

Nov 2022	Matter expert for NASA's Astrophoto Challenge (<i>virtual</i>)
Oct 2022	Provided scientific expertise to the public outreach office at STScI (<i>Baltimore, MD, USA</i>)
Jan 2021	Remote talk for the JVS (Flemish youth astronomy association) (<i>Belgium</i>)
May 2020	Series of YouTube videos about my work as an astronomer in the USA (<i>virtual</i>)
Nov 2019	Public PhD defence at "Armand Pien", Public Observatory of Ghent (<i>Belgium</i>)
Mar 2019	Lecture at "Cozmix", Public Observatory of Bruges (<i>Belgium</i>)
Dec 2018	Public talk at "De Sterrenjutters", Public Observatory of Koksijde (<i>Belgium</i>)
Aug 2018	Practicum at the "Summer school of astronomy", KULeuven (<i>Belgium</i>)
May 2018	Jury member of the VSO (Flemish Astronomy Olympiad) (<i>Brussels, Belgium</i>)
Apr 2018	Article in the local newspaper "Krant van West-Vlaanderen" (<i>Belgium</i>)
Jan 2018	Public talk at "AstroLAB Iris", Public Observatory of Ieper (<i>Belgium</i>)
Oct 2017	Art in Science exhibition in the context of "200 years UGent" (<i>Ghent, Belgium</i>)
Aug 2017	Practicum at the "Summer school of astronomy", KULeuven (<i>Belgium</i>)
Jun 2017	Article in the newsletter of the Public Observatory of Ghent (<i>Belgium</i>)
Mar 2017	Public talk for VVN (Student association for Physics) (<i>Ghent, Belgium</i>)
Mar 2017	Lecture at "Cozmix", Public Observatory of Bruges (<i>Belgium</i>)
Feb 2017	Public talk for "JVS-Vigilia" (Flemish youth astronomy association) (<i>Bruges, Belgium</i>)
2015-2019	Board member of the JVS (Flemish Youth Astronomy Association, <i>Belgium</i>), organizing bi-monthly activities for young amateur astronomers
2011-2015	Board member of the VVN (Student Association for Physics) at Ghent University (<i>Belgium</i>), of which one year as chair, organizing monthly activities for students and the general public