

Curriculum Vitae

Dr Anaëlle Julie Maury
born 07 December 1984

email: anaelle.maury@icrea.cat
web: [Personal webpages](#)

Education

- * 2018: Habilitation à diriger des recherches (HDR), Paris-Saclay University, France
- * 2009: Ph.D. in Astrophysics, Paris-VI University, Paris, France (with honours)
- * 2006: Master degree in Astrophysics, Paris-VI University, France
- * 2004: Bachelor in Fundamental Physics, Paris-XI University, France
- * 2001-2003: Preparatory Classes of Physics and Chemistry, Montpellier, France

Research experience

- * 2024 - : ICREA research professor at Institute of Space Sciences (ICE), Barcelona, Spain
- * 2024 - : Research associate at AIM Astrophysics department, CEA, France
- * 2014 - 2023: Permanent researcher at AIM Astrophysics department, CEA, France
- * 2014 - 2023: Research associate at Harvard-Smithsonian CfA, Cambridge, USA
- * 2013 - 2014: SMA Fellowship, Harvard-Smithsonian CfA, Cambridge, USA
- * 2010 - 2013: ESO ALMA Fellowship, European Southern Observatory, Germany
- * 2006 - 2009: PhD thesis at AIM Astrophysics department, CEA, France
- * 2006: 3-months undergraduate internship at AIM Astrophysics department, CEA, France
- * 2005: 4-months undergraduate internship at European Southern Observatory, Chile
- * 2004: 2-months undergraduate internship at GRAAL, Montpellier University, France

Supervising research

2024-2027: Supervising the PhD thesis of Andres Zuleta at ICE, Barcelona "Investigating the evolution of astrophysical dust: constraints from observations at millimeter wavelengths"

2023-2026: Supervising the PhD thesis of Marie-Anne Carpine at CEA, Saclay "New dust models for the dense ISM"

2018-2021: Supervising the PhD thesis of Victoria Cabedo "Physico-chemical properties in protostellar cores: characterization of the coupling between magnetic field and circumstellar matter" (co-direction with Josep Miquel Girart, ICE Barcelona)

2018-2021: Supervising the PhD thesis of Valentin Le Gouellec "Testing theories of dust-grain alignment with ALMA observations of polarized dust emission in protostars" (co-direction with Chat Hull, ALMA JAO, Chile)

2015-2018: Supervising the PhD thesis of Mathilde Gaudel "Studying the gas kinematics in protostellar envelopes at high angular resolution"

Since 2016: Group leader, supervising 8 postdocs, 5 PhD students and a dozen undergraduates.

2014-2024: Corresponding scientist for 17 PhD students in AIM Astrophysics department at CEA: leading thesis committees and following-up students progress

Since 2011: Directing 11 undergraduate internships, at ESO Garching, Harvard/CfA and AIM/CEA

Grants & Awards

- * 2023-2028: PI of an ERC Advanced Grant: PEBBLES project - 2.4 M€
- * 2020: Awarded Young Researcher of the Year 2020 of the French Astronomical Society ([SF2A](#))

- ★ 2016-2021: PI of a Starting Grant from the ERC (European Research Council): [MagneticYSOS](#) project - 1.5 M€
- ★ 2015: Scientific coordinator for a grant from the French National Research Agency (ANR): NIKA2SKY project (PI F. Mayet) - 405 k€, 121 k€ for NIKA2POL at AIM/CEA
- ★ 2012-2014: PI of a grant from the ASA (Programme National Action Spécifique ALMA): 5.5 k€
- ★ 2012: Awarded the Harvard-Smithsonian SMA Fellowship, USA: 3-years funding for my own salary
- ★ 2011: PI of a grant from the ASA (Programme National Action Spécifique ALMA): 3 k€
- ★ 2009: Awarded the ESO ALMA Fellowship, Germany: 3-years funding for my own salary

Scientific responsibilities

- ★ 2016-2021: PI of the [MagneticYSOS](#) ERC project, an international project involving ~10 close collaborators in 3 international research institutes, and 5 young researchers in AIM/CEA
- ★ 2023-now: PI of the [ECOGAL](#) ENYGMA Large Program: observations of dust and magnetic fields in disks and protostars with the [IRAM-NOEMA](#) interferometer.
- ★ 2015-2021: Team coordinator of the commissioning of [NIKA2](#) camera polarization capabilities (NIKA2POL, mounted on the IRAM-30m telescope) - funded by the National Research Agency (ANR).
- ★ 2012-2014: PI of the working group "Early phases of the formation of stars", funded by the ALMA Specific action, France
- ★ *Since 2011*: Scientific coordinator for the IRAM Plateau de Bure Large program CALYPSO (300 hours, 16 refereed publications).
- ★ *Since 2009*: PI of more than 30 accepted observing programs (ALMA, SMA, IRAM-30M, NOEMA) for a total > 600 hours of telescope time.

Expert committees memberships & Peer reviewing activities

- ★ 2023-2024: Radioastronomy group leader for the CNRS/INSU prospective in Astronomy & Astrophysics
- ★ 2023: Member of the SOC for the scientific program [Core2Disk III](#) "The role of magnetic fields in disk formation, evolution, and planet formation" (Paris-Saclay University, Institut Pascal)
- ★ 2022-now: Member of the PRIMA consortium
- ★ 2022: Member of the Selection Committee for the Paris Astrophysics Doctoral School
- ★ 2021: Head of the SOC for the scientific program [Core2Disk II](#) "From prestellar cores to solar nebulae" (Paris-Saclay University, Institut Pascal)
- ★ 2020-2022: Member of the Scientific Panel for the Astronet 2020 Science Vision and Infrastructure Roadmap for European Astronomy
- ★ 2020: Member of the SOC for the conference "The Magnetic Field awakens", held in Paris
- ★ 2020: Member of the Scientific and technical Selection committee for the [P2IO](#) LabeX.
- ★ 2019: Panel Chair for the ALMA Program Committee (ARPC)
- ★ 2018: Head of the SOC for the 30th IAU General Assembly Focus Meeting "Magnetic Fields along the star formation sequence: bridging polarization-sensitive views"
- ★ 2018-now: Member of the Scientific Council for the French National Program on stellar physics ([PNPS](#))
- ★ 2018-2020: Member of the SPICA consortium (sub-mm polarimetric camera on the SPICA Space Observatory)
- ★ 2018-now: Member of the METIS Science Team (infrared camera on the ELT)
- ★ 2018: Member of the SOC for the scientific program [Core2Disk](#) "From prestellar cores to solar nebulae" (Paris-Saclay University, Institut Pascal)
- ★ 2017-now: Member of the SPIROU (infrared camera on the CFHT) Legacy Survey
- ★ 2016-2019: Member of the Atacama Millimeter Array (ALMA, sub-mm interferometer) Review Panel
- ★ 2016: Member of the SOC for the EPOS conference, Germany (70 participants)

- ★ *2012-2013-2014-2020*: Member of the SubMillimeter Array (SMA, sub-mm interferometer) Time Allocation Committee
- ★ *Since 2010*: Referee for the journals *Astrophysical Journal*, *Monthly Notices of the Royal Astronomical Society*, *Astronomy & Astrophysics*, *Nature*
- ★ *Since 2010*: Referee for a dozen PhD thesis, and 3 "Habilitation à diriger des recherches" (HDR).

Service

- ★ *2022-2024*: Commissioning the polarimetric capabilities on the IRAM-NOEMA interferometer
- ★ *2014-2021*: Commissioning the polarimetric capabilities on the NIKA and NIKA2 cameras (IRAM-30M telescope)
- ★ *2013*: Astronomer on duty operating the Harvard-Smithsonian [SubMillimeter](#) interferometer
- ★ *2010-2012*: Commissioning and operating the [ALMA](#) interferometer

Membership to scientific societies

- ★ *2015-now*: International Astronomical Union (IAU)
- ★ *2010-now*: French Society for Astronomy and Astrophysics (SF2A)

Teaching

- ★ *2014-2018*: Teaching "Stage d'observation radio" to Master 2 students (M2 AAIS Paris), IRAM-30m telescope, ~60 hours/year.
- ★ *2006-2007*: Teaching Assistant and Grading at graduate level in Electromagnetic Waves and Optics at University of Versailles-Saint Quentin, 45 hours/year.

Educational Activities and Outreach

- ★ *2024*: Participation to a TV show on the Origins of Life in the Universe, presented in prime-time on a national TV channel (France 2).
- ★ *2023*: Outreach conference for the "Fête de la Science" in Challans (Vendée, France)
- ★ *2022*: Outreach conference for the PCMI prospective conference (CNRS/INSU National Program), Paris
- ★ *2021*: Outreach public conference for the ACS Science And Arts association, Cluny, France
- ★ *2020*: General public conference at the festival [De la Plage aux Etoiles](#) (Collioure, France)
- ★ *2020*: General Public Conference "All StarDust", in the framework of the [Du Big Band aux Big Bands](#) event organized by the Paris-Saclay University (Orsay, France)
- ★ *2020-2022*: Jury member for the [French Physicists Tournaments](#) organized by the French Physical Society, Paris
- ★ *2018*: Outreach conference on the formation of exoplanets, in the framework of the "Mission exoplanète" event in the Cité des Sciences et de l'Industrie (Paris, France)
- ★ *2015*: Organized and performed a "I've become a WOMAN researcher" outreach day in a high-school, Bourges, France
- ★ *2015-2016*: Member of the Galileo Mobile Constellation project, outreach program to bring astronomy awareness in twenty schools across six latin-american countries (<http://www.constellationproject.org>)
- ★ *2014*: Participation to the ExplorUnivers MOOC
- ★ *2013*: Participation to the Center for Astrophysics "Nights" opened to the public <http://sao-www.harvard.edu/events/mon.htm>
- ★ *2009*: Co-redactor of the french webpages: the Herschel satellite for the general public
- ★ *2007*: Recording of a podcast for the french national magazine *Ciel & Espace*: Scientific objectives of the Herschel Observatory

Invited talks and reviews at conferences Since 2009, I have been presenting my results in more than 50 international conferences, of which ~30 were invited contributions, and a dozen invited reviews of the state-of-the-art knowledge of the formation of stars, disks, and the role of magnetic fields in these processes.

Publications

Invited reviews, Book chapters

- ★ *Recent progress with observations and models to characterize the magnetic fields from star-forming cores to protostellar disks*
Maury, A.J., Hennebelle, P. and Girart, J.M., invited review for *Frontiers in Astronomy and Space Sciences*, vol. 9, id. 949223, 2022.
- ★ *The role of magnetic fields in the formation of protostars, disks, and outflows*
Tsukamoto, Y., Maury, A.J., Commerçon, B., Alves, F., Cox, E., Sakai, N., Machida, M., Zhao, B. & Ray, T., selected review chapter for the reference book *Protostars and Planets VII*, in press.
- ★ *Formation and Evolution of Disks around Young Stellar Objects*
Zhao, B., Tomida, K., Hennebelle, P., Tobin, J., Maury, A.J., Hirota, T., Sánchez-Monge, A., Kuiper, R., Rosen, A., Lee, YN., Bhandare, A., Padovani, M., review chapter for the reference book *Space Sciences Series of the International Space Science Institute*
- ★ *The Earliest Stages of Star and Planet Formation: Core Collapse, and the Formation of Disks and Outflows*
Li, Z.-Y., Banerjee, R., Jorgensen, J., Krasnopolsky, R., Pudritz, R., Shang, H., Maury, A.J., review chapter for the reference book *Protostars and Planets VI*
- ★ *From Molecular Clouds to prestellar Cores: physics of the gravitational infall, filaments and open questions*
Maury, A.J., EAS Publications Series 51, 169-190, 2010
- ★ *Small-scale properties of low-mass Class 0 protostars: digging into the memory of accretion and fragmentation processes*
Maury, A.J., EAS Publications Series 51, 191-209, 2010

Complete list of refereed publications

For a complete record of my publications, follow this link: [ADS](#).

I have authored or co-authored **93** scientific publications, among which **43** where I made a major contribution (among the first 3 authors).

My h-index, assuming this quantity has any real value to measure the research qualities of an individual while research is truly a collaborative effort, is **h = 40**, collecting > **5400** citations in > **3400** individual papers.