

Curriculum Vitae

Dr. Barbara PERRI

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Faculty researcher in space weather, specialized in highly parallel numerical simulations and the interaction between the ambient solar wind and transients, PI of ANR WindTRUST

Research experience

- 2022 ~ present** **Faculty Researcher (CNAP)**
CEA Saclay, Department of Astrophysics, UMR AIM, LDE3 – Gif-sur-Yvette, France
Deputy astronomer specialized in space weather, involved in Solar Orbiter/STIX and MEDOC database
Teaching: introduction to astrophysics and space weather, electromagnetism, advanced numerical methods
Student supervision: Post-doc, PhD, master students, bachelor students, work-study
- 2020 ~ 2022** **Post-Doctoral Researcher – Supervisor: Pr. Stefaan POEDTS**
CmPA (Centre for mathematical Plasma-Astrophysics) – KU Leuven, Belgique
Participation to the H2020 EUHFORIA 2.0 project to an innovative MHD coronal model for space weather
Study of the impact of the solar cycle on heliospheric transients (CMEs and SEPs)
Teaching: research projects for bachelor and master students
Student supervision: Master thesis, master students, bachelor students
- 2019 ~ 2020** **Post-Doctoral Researcher – Supervisor: Dr. Éric BUCHLIN**
Institut d'Astrophysique Spatiale (IAS) – Orsay, France
Participation to the 3rd phase of the SSA ESA program with the integration of Wind-Predict to the VSWMC
Management of the French database MEDOC for Solar Orbiter data
Student supervision: bachelor student for 2-month internship

Education

- 2016 ~ 2019** **PhD thesis in Astronomy and Astrophysics – Supervisor: Dr. Allan Sacha BRUN**
CEA Saclay, Department of Astrophysics, UMR AIM, LDE3 – Gif-sur-Yvette, France
The magnetic Sun and space weather: study of the non-linear coupling between dynamo, magnetic activity and solar wind
Responsibilities: Representative of PhDs for the laboratory council
Teaching: Computer science (132h), Analytical mechanics (oral, 34h, and lab work, 9h)
- 2015 ~ 2016** **Master's degree in Applied Mathematics (3rd rank, with distinction)**
Université Paris-Saclay – Orsay, France
Special emphasis on computational astrophysics
- 2013 ~ 2016** **Engineering diploma**
Ecole Nationale Supérieure des Techniques Avancées (ENSTA) Paris – Palaiseau, France
Special emphasis on applied Mathematics and numerical Simulations
Dual degree: Bachelor in Fundamental Physics (with honors) at Université Paris-Saclay in evening classes

Scientific responsibilities

International

- Since 2022:** COSPAR International Space Weather Action Team (ISWAT) co-team leader for solar winds (H1-01, H1-03)
Since 2019: ESA Virtual Space Weather Modeling Center (VSWMC) scientific consultant for the Wind Predict model
Referee: journals (A&A, ApJ, Solar Physics, Universe), grants (ANR Astrid)

National

- Since 2025:** Member of the Sun-Earth relationships national committee (ATST)
Since 2024: PI of ANR Astrid WindTRUST
Since 2023: Member of the French national organization for space weather advisory committee (OFRAME)

Grants and Prizes

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|-------------|--|-------------|--|
| 2025 | VSWMC Part 4 ESA ITT grant | 2016 | “Thèse Phare” Ph.D. grant from CEA |
| 2024 | CFR Ph.D. grant from CEA | 2015 | 2 nd prize of best research internship at ENSTA Paris |
| 2023 | ANR Astrid grant for the WindTRUST project | 2012 | Prize of the scientific and technical vocation for girls |
| 2019 | 3 rd prize of the contest “Chronothesis” of the AFA | | |

Curriculum Vitae

Publications (27 peer-reviewed, 9 as 1st author)

2025	2024	2023	2022	2021	2020	2018
Jouve+, A&A, 699, A30	Perri+, A&A, 687, A10	Perri+, ApJ, 955, 50	Perri & Leitner+, ApJ, 936, 1	Perri+, ApJ, 910, 50	Perri+, JSWSC, 10, 55	Perri+, JPLPh, 84
Finley+, A&A, 697, A217	Kennis+, A&A, 691, A257	Perri+, ApJ, 943, 2	Brchnelova+, JPLPh, 88, 2	Hazra+, ApJ, 910, 90	Perri+, IAU Proceeding, 354, 215	Perri+, A&A, 609, A99
Degott+, A&A, 696, A30	Guo+, A&A, 690, A189	Brchnelova+, SunGeo, 15, 2	Brchnelova+, ApJS, 263, 1	Janvier+, ApJ, 922, 216		
	Guo+, A&A, 683, A54	Kuzma+, ApJ, 942, 1	Brun+, A&A, 926, 1			
	Pevtsov+, Adv. In S. R.	Linan+, A&A, 675, A101	Parenti+, ApJ, 929, 1			
	Temmer+, Adv. In S. R.	Reiss+, Adv. In S. R.				

Conferences

30 talks (8 invited *)

Additional: 11 posters, 14 invited seminars,

6 times SOC/NOC member (ESWW, SF2A, Solar MHD, CmPA), 4 times session organizer (ESWW, SF2A)

2025	2024	2023	2022	2021	2020	2019
SF2A, France*	SPIA, France*	ESWW, France	Solo WG, online	ESP, online	AGU, online	IAUS354, Chile
EST Workshop, France*	AstroNum, France*	SFP, France*	ESWW, Croatia	IAUChalCA, online	ESWS, online	
ISWAT, USA	IAU388, Poland	EGU, Austria	APPS, online*	SF2A, online	ESA, online	
RAS, UK*	EGU, Austria	ESA, Germany	ISWAT, Portugal	vEGU, online		
	PNST, France		CmPA, Belgium	CS20.5, online		
			COSPAR, Greece			
			EGU, Austria*			
			SCOSTEP, online			

Communication experience

Conferences (7)	Events (3)	Interviews (6)	Articles (3)	Contests
Télécom Paris (2025)	ESWW Science Village (2023)	Edition Paris-Saclay (2025)	Les Cahiers Clairaut (2024)	My thesis in 180 seconds (2020)
Pint of Science (2023)	WiseNight European Festival (2021)	France TV (2024)	Astronomie (2022, 2024)	Chronothesis (2019)
Fête de la science (2020, 2022, 2023)	Festival CURIOSITAS (2016)	Sciences et Avenir (2024)		ScienceTube (2018)
ALCOR (2020)		RFI (2024)		
AFA (2020)		France Inter (2024)		
		Ciel & Espace (2020)		

Community work

[Women in astrophysical Fluids and Plasmas](#) (2021 ~ present)

[JobIRL](#) (2016 ~ present)

[ALCOR](#) (2013 ~ 2021)

[Elles Bougent](#) (2013 ~ 2016)

Forum to promote women in astrophysics

Website to inform teenagers about employment

Amateur astronomy association at Université Paris-Saclay

Participation to encourage young women to study STEM