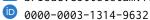
Brieuc Collet, PhD candidate

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Q ADS Page



PhD Candidate specialized in planetary wave-plasma instability using a data analysis approach of in situ radio and electron measurements and analytical modelization

Employment History

2022 - 2025

PhD in Astrophysics Laboratory of Astrophysics of Marseille, Aix-Marseille University (France)

Thesis title: Understanding the microphysics of Jovian radio auroral emissions with Juno space probe

Teaching 64h/yr: Physics practical courses and Mathematics tutorials

End of contract October 1st

2022 Master 2 Internship Laboratory of Astrophysics of Marseille (France)

Subject: Understanding the microphysics of Jovian radio auroral emissions with Juno space probe

2021

Master 1 Internship LESIA, Observatory of Paris (France) Subject: *Characterization of Jovian auroral emissions*

Education

2021 – 2022 **Master's D**

Master's Degree Plasma Physics, Paris Saclay University

2019-2020

Bachelor's Degree of Fundamental Physics, Paris Saclay University

2019 - 2022

Magistère of Fundamental Physics, Paris Saclay University
Supplementary diploma during Master and Bachelor for more class

Skills

Languages

English & French: Strong reading, writing and speaking competences; **Spanish**: Basics

Coding

Proficicency in **Python**, Knowledge in C++ and **IDL**

Astronomy

4 observation nights at Observatory of Haute Provence

Community Activities

2022-2025

Member of Laboratory's Sustainable Development group

Laboratory's Seminar Organizinng Comitee

2023-2025

PhD Representant in Laboratory Council

Organizing Comitee in Festival d'Astronomie de Provence, Local astronomy outreach event

2025

Local Organizing Comitee for Planetary, solar and heliospheric Radio Emissions X, Marseille France

Research Publications

Journal Articles

1

B. Collet, L. Lamy, C. K. Louis, V. Hue, and T. Kim, "In situ analysis of Jupiter's broadband kilometric auroral radio emissions with Juno," Under review, 2025.

- J. Rabia, V. Hue, C. Louis, N. Andre, Q. Nenon, **B. Collet**, J. Szalay, R. Prange, L. Lamy, P. Zarka, F. Allegrini, R. Ebert, T. Greathouse, B. Bonfond, D. Santos-Costa, R. Giles, J. Kammer, M. Versteeg, G. Gladstone, P. Louarn, *et al.*, "Callisto's auroral footprint revealed by a shift of Jupiter's main aurora," Under review, 2025.
- B. Collet, L. Lamy, C. K. Louis, P. Zarka, R. Prangé, P. Louarn, W. S. Kurth, and F. Allegrini, "A New Type of Jovian Hectometric Radiation Powered by Monoenergetic Electron Beams," *Journal of Geophysical Research: Space Physics*, vol. 129, no. 5, 2024. ODI: 10.1029/2024JA032422.
- C. K. Louis, P. Louarn, **B. Collet**, N. Clément, S. Al Saati, J. R. Szalay, V. Hue, L. Lamy, S. Kotsiaros, W. S. Kurth, C. M. Jackman, Y. Wang, M. Blanc, F. Allegrini, J. E. P. Connerney, and D. Gershman, "Source of Radio Emissions Induced by the Galilean Moons Io, Europa and Ganymede: In Situ Measurements by Juno," *Journal of Geophysical Research: Space Physics*, vol. 128, no. 12, e2023JA031985, 2023. ODI: 10.1029/2023JA031985.
- S. Al Saati, N. Clément, C. Louis, M. Blanc, Y. Wang, N. André, L. Lamy, B. Bonfond, **B. Collet**, F. Allegrini, S. Bolton, G. Clark, J. E. P. Connerney, J.-C. Gérard, G. R. Gladstone, S. Kotsiaros, W. S. Kurth, and B. Mauk, "Magnetosphere-Ionosphere-Thermosphere Coupling Study at Jupiter Based on Juno's First 30 Orbits and Modeling Tools," *Journal of Geophysical Research: Space Physics*, vol. 127, no. 10, e2022JA030586, 2022. ODI: 10.1029/2022JA030586.

Conference Proceedings

B. Collet, L. Lamy, C. K. Louis, P. Zarka, P. Prangé, P. Louarn, A. H. Sulaiman, and W. S. K. Kurth, "Characterization of Jovian hectometric sources with Juno: statistical position and generation by shell-type electrons," in *Planetary, Solar and Heliospheric Radio Emissions IX*, C. K. Louis, C. M. Jackman, G. Fischer, A. H. Sulaiman, and P. Zucca, Eds., DIAS and TCD, 2023. ODI: 10.25546/103095.

Conferences

Oral Presentations

- Planetary, solar and heliospheric Radio Emissions IX, Dublin, Ireland
- Chapman on Advances in Understanding Alfvén Waves in the Sun and the Heliosphere, Berlin, Germany
- French national prospective on Heliophysics (PNST), Marseille, France
 - Magnetosphere of Outer Planets, Minneapolis, USA
- 2025 **EGU General Assembly**, Vienna, Austria Next April
 - Planetary, solar and heliospheric Radio Emissions X, Marseille, France Next June

Poster Presentationns

- French national prospective on Heliophysics (PNST), Marseille, France
 Poster
- Astroradiofr24, French radio frequency astrophysics, towards SKA, Paris