

Dr Léa Griton

Associate Professor (Maîtresse de conférences) at Sorbonne Université,

Space plasma physicist at LESIA/L'Observatoire de Paris

1 maternity leave from Sept. 2022 to Jan. 2023

Current position

01/09/2021 — now (permanent position): **Maîtresse de conférences at Sorbonne University, researcher at the Heliosphere and Space Plasma pole of the Laboratory of Space Studies and Instrumentation in Astrophysics (LESIA) of Paris Observatory**

Adjunct Research fellow at DIAS (Dublin, Ireland)

Research on the large-scale dynamics of the interaction of the solar wind with planetary magnetospheres, numerical simulation, space data analysis, BepiColombo, Solar Orbiter.

Education

2018: **Phd** in Astrophysics & Astronomy, PSL Research University (Paris)

2015: **Master** in Astronomy, Astrophysics and Space Instrumentation, l'Observatoire de Paris

2013: **Bachelor** in mechanical engineering, Université Pierre et Marie Curie (Paris)

Past professional/research experience:

01/10/2018 — 31/08/2021: **Post-doc funded by the ERC "SLOW SOURCE" (IRAP, Toulouse)**, study of the origin and properties of the solar wind with numerical simulations and data from Parker Solar Probe & Solar Orbiter, specialist in planetary magnetospheres (Uranus, Mercury, Saturn),

01/10/2015 — 30/09/2018: **PhD Thesis at LESIA**, Paris Observatory, PSL University

Simulations of the interaction of the solar wind with planetary magnetospheres: from Mercury to Uranus, the role of planetary rotation, under the supervision of F. Pantellini & M. Moncuquet

PhD defence panel: M.-C. Angonin (president), Pr E. Bunce et Pr V. Pierrard (referees), P. Hellinger et Ph. Louarn (examinators)

June — July 2012: **Summer Research Project at Oxford University**

High red-shifted galaxies from numerical simulations: catalog and classification (sup. S. Wilkins)

Teaching

2023: « **Atelier de Recherche encadrée (ARE)** » in plasma physics and introduction to research (26 undergrad students, 1st year, 30h) about the Parker model of the solar wind & **Nanosat student project** (4 students, M1 physique fondamentale at SU, 12h) with N. Rambaux

2021 – 2022: **Bibliography project in planetology** (18 graduate students, Master 1, 34h),

Professional development/orientation (16 undergrad students, 3rd year, 24 hours), **ARE Parker**

(32 undergrad students, 1st year, 45h), **Nanosat student project** (M1 physique fondamentale at SU, 12 hours, 4 students), **Maths** (L1, 36h, 30 students)

2015 — 2018: Teaching (« monitorat ») at **Sorbonne Université**, mechanical engineering unit: Mechanics (L1, 2x20h), Scientific programming (L2, 3x40h), Numerical methods (L3, 20h), robotics (L2, 12h)

Recent student supervision

2022 - 2025 : Co-supervision of **PhD student** Ahmed Houeibib (LESIA)

2023: Camille Costillet, Hindi Taib and Marie Pedretti (M1, Magistère d'Orsay, 6 weeks)

2022: Lucas Grosset, M1 student (3 months), Roseni Vence (L3, Sorbonne Université, 4 weeks), Muhammad Jameel (L3, Sorbonne Université, 4 weeks)

Responsibilities regarding research activity

2021 - *ongoing*: « **Co-Investigator** » of **PWI/SORBET** (high frequency receptor) **BepiColombo**

2019 - *ongoing*: « **Co-Investigator** » of **MPPE/MEA** (Mercury Electron Analysers) **BepiColombo**

1 panel at NASA ROSES program (2019), 2 reviews for *Astronomy & Astrophysics* (2019, 2023)

1 review for *Solar Physics* (2020)

Lab administration

2021 — now: **gender equality officer of LESIA/CNRS**

2021: elected representative of the postdocs to the IRAP laboratory council

2019 — 2020: member of the IRAP Communication Commission

2016 — 2017: preparation of the ceremony in honour of Jean-Louis Steinberg

2015 — 2017: elected representative of students to the LESIA laboratory council

Participation in scientific projects/international collaborations

Since 2020: **Horizon 2061** (future exploration of the Solar System, PI: Michel Blanc, IRAP) & **Science Working Team of Solar Orbiter (ESA/NASA)**

2018 — 2021: « SLOW SOURCE », **European Research Council** Consolidator Grant, led by A. Rouillard on the origins of the slow solar wind

Since 2016: Science Working Team of **BepiColombo (ESA/JAXA)**

Since 2018: Studies on Hermean magnetosphere Oriented Theories and Simulations (SHOTS)

Fundings/conferences organisation

2021 — 2022: **Irish Research Council/Campus France Ulysses Scheme 2020**

2020 - 2021: successful application for a Research Fellowship to the European Space Agency (ranked 1st out of 42 validated applications) for 2021 - 2023

Outreach

2023 : publication of a « **pop science** » **book** about planetary exploration in the Solar System (éditions Quanto, EPFL Press)

2019 — 2023 : **editorial board** of the **magazine *l'Astronomie*** (Société Astronomique de France)

2020 — 2022: creation of a **board game** about Solar Orbiter (edited by CNES)

2018 — 2021: workshops against gender stereotypes with the association Femmes & Sciences.

Creation and animation of two board games BepiColombo (LESIA), and Solar Orbiter (CNES)

2018: Co-organisation of « Planets in French Guiana », 10 days of activities and conferences in French Guiana on the occasion of the launch of BepiColombo

Rewards

2022 Médaille Gabrielle & Camille Flammarion, in recognition of exceptional contribution to the magazine of the Société astronomique de France, *l'Astronomie*

2019 Best poster of Société française d'Astronomie et d'Astrophysique (SF2A), Nice

2016 Best poster of Culham Plasma Physics Summer School (Oxford)