Solène Lejosne
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EXPERIENCE

(2016 – Present)	**University of California, Berkeley**	Assistant Researcher
	NASA NNH17ZDA001N-HSR (2018-)	Principal Investigator
(2014 – 2016)	**University of California, Berkeley**	Postdoctoral Scholar
(2013 6 months)	**British Antarctic Survey, Cambridge**	Res. Assistant
(2010 – 2013)	**University of Toulouse, France**	Ph.D. Student
(2009 3 months)	**Swedish Institute of Space Physics**	Undergrad Res. Assistant

EDUCATION

(2010-2013)	**University of Toulouse, France**	Ph.D. (2013)
(2009-2010)	**Supaéro - ISAE, Toulouse, France**	MSc. (2010)
(2006-2010)	**École Polytechnique, Palaiseau, France**	BSc. (2008)

PUBLICATIONS

1. **Lejosne, S.** (2019). Analytic Expressions for Radial Diffusion. J. Geophys. Res. Space Physics, https://doi.org/10.1029/2019JA026786
2. **Lejosne, S.**, & Mozer, F. S. (2019). Shorting Factor In-Flight Calibration for the Van Allen Probes DC Electric Field Measurements in the Earth's Plasmasphere. Earth and Space Science, 6. https://doi.org/10.1029/2018EA000550
3. **Lejosne, S.**, Kunduri, B.S.R, Mozer, F.S, & Turner, D.L. (2018). Energetic electron injections deep into the inner magnetosphere: a result of the subauroral polarization stream (SAPS) potential drop, Geophysical Research Letters, 45. doi: 10.1029/2018GL077969
4. **Lejosne, S.** & Mozer, F.S. (2018). Magnetic activity dependence of the electric drift below L=3, Geophys. Res. Lett., doi: 10.1029/2018GL077873
5. Roederer, J. G., & **Lejosne, S.** (2018). Coordinates for representing radiation belt particle flux. Journal of Geophysical Research: Space Physics, 123, 1381–1387. https://doi.org/10.1002/2017JA025053
6. Mozer, F. S., Hull, A., **Lejosne**, S., & Vasko, I. Y. (2018). Reply to comment by Nishimura et al. Journal of Geophysical Research: Space Physics, 123, 2071–2077. https://doi.org/10.1002/2018JA025218
7. **Lejosne, S.**, and F.S. Mozer (2017), Sub-Auroral Polarization Stream (SAPS) duration as determined from Van Allen Probe successive electric drift measurements, *Geophys. Res. Lett*., doi: 10.1002/2017GL074985
8. Mozer, F. S., O. V. Agapitov, A. Hull, **S. Lejosne**, and I. Y. Vasko (2017), Pulsating auroras produced by interactions of electrons and time domain structures, *J. Geophys. Res. Space Physics*, 122, doi:10.1002/2017JA024223
9. **Lejosne, S.**, S. Maus, and F. S. Mozer (2017), Model-observation comparison for the geographic variability of the plasma electric drift in the Earth's innermost magnetosphere, *Geophys. Res. Lett*., 44, 7634–7642, doi:10.1002/2017GL074862
10. **Lejosne, S.**, and F.S. Mozer (2016), Typical values of the electric drift $\mathbf{E} \times \mathbf{B}/\mathrm{B}^2$ in the inner radiation belt and slot region as determined from Van Allen Probe measurements, *J.Geophys. Res. Space Physics, 121*, 12,014-12,024, doi: 10.1002/2016JA023613

11. Mozer, F.S., O.A. Agapitov, V. Angelopoulos, A. Hull, D. Larson, **S. Lejosne** and J. P. McFadden (2016), Extremely Field-Aligned Cool Electrons in the Dayside Outer Magnetosphere, *Geophys. Res. Lett.*, doi: 10.1002/2016GL072054
12. **Lejosne, S.**, and F.S. Mozer (2016), Van Allen Probe measurements of the electric drift ExB/B^2 at Arecibo's L = 1.4 field line coordinate, *Geophys. Res. Lett.*, 43, doi: 10.1002/2016GL069875
13. **Lejosne, S.**, and J.G. Roederer (2016), The "zebra stripes": An effect of F region zonal plasma drifts on the longitudinal distribution of radiation belt particles, *J. Geophys. Res. Space Physics*, 121, 507-518, doi: 10.1002/2015JA02192
14. Mozer, F. S., O. V. Agapitov, A. Artemyev, J. F. Drake, V. Krasnoselskikh, **S. Lejosne**, and I. Vasko (2015), Time domain structures: What and where they are, what they do, and how they are made, *Geophys. Res. Lett.*, 42, 3627–3638. doi: 10.1002/2015GL063946
15. Amaya, J., S. Musset, V. Andersson, A. Diercke, C. Höller, S. Iliev, L. Juhász, R. Kiefer, R. Lasagni, **S. Lejosne**, M. Madi, M. Rummelhagen, M. Scheucher, A. Sorba and S. Thonhofer, (2015), The PAC2MAN mission: A new tool to understand and predict solar energetic events, *J. Space Weather Space Clim*, 5, A5, DOI: 10.1051/swsc/2015005
16. **Lejosne, S.** (2014), An algorithm for approximating the L* invariant coordinate from the real-time tracing of one magnetic field line between mirror points, *J. Geophys.Res.,Space Physics*, doi: 10.1002/2014JA020016
17. Mozer, F.S., Agapitov, O., Krasnoselskikh, V., **Lejosne, S.**, Reeves, G.D., and Roth, I. (2014), Direct Observation of Radiation-Belt Electron Acceleration from Electron-Volt Energies to Megavolts by Nonlinear Whistlers, *Phys. Rev. Lett.*, 113, 035001.
18. **Lejosne, S.** (2013), Modélisation du phénomène de diffusion radiale au sein des ceintures de radiation terrestres par technique de changement d'échelle. Ph.D Thesis, Space Physics, University of Toulouse
19. **Lejosne, S.**, D. Boscher, V. Maget, and G. Rolland (2013), Deriving electromagnetic radial diffusion coefficients of radiation belt equatorial particles for different levels of magnetic activity based on magnetic field measurements at geostationary orbit, *J. Geophys. Res., Space Physics*, 118, 3147-3156, doi: 10.1002/jgra.50361
20. **Lejosne, S.**, D. Boscher, V. Maget, and G. Rolland (2012), Bounce-averaged approach to radial diffusion modeling: From a new derivation of the instantaneous rate of change of the third adiabatic invariant to the characterization of the radial diffusion process, *J. Geophys. Res.*, 117, A08321, doi:10.1029/2012JA018011

12 seminars, 5 invited talks, 20+ talks or posters at conferences in the USA, Canada and Europe

SYNERGISTIC ACTIVITIES

REVIEWS: NASA Proposal**,** Journal of Geophysical Research, Space Physics, Geophysical Research Letters**,** *Dynamics of Magnetically Trapped Particles* (2014), Roederer & Zhang
DIGITAL PRESENCE: Author of outreach articles, Personal website (solenelejosne.com), @SoleneLejosne on Twitter, ORCID ID: 0000-0003-4238-8579
IN-PERSON OUTREACH: Public presentation at the Toulouse Museum, France (1-hour discussion)**,** Visit of elementary school, Givet, France (1/2 day discussion and hands-on experiments)
STUDENT SUPERVISION: 2 undergraduates students (Summer 2019; Summer 2019-Present), 1 graduate student (Fall 2019-Present)