

Lorena Acuña - Curriculum Vitae

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Education

2019-Present PhD in Astrophysics - Aix-Marseille University, France

- PhD project - *Modeling the populations of the low mass planets: transition between super-Earths and mini-Neptunes*. Supervisors: Magali Deleuil and Olivier Mousis.

2017-2019 MSc in Astrophysics - Lund University, Sweden

- MSc project - *Detailed analysis of chemical composition of stars harbouring Earth-like planets*. Supervisor: Fan Liu.

2013-2017 BSc in Physics - Complutense University of Madrid, Spain

- BSc project - *The current state of the art in exoplanet research*. Supervisor: Elisa de Castro Rubio.

Scholarships, grants and awards

2019 LEAPS Summer program - European Space Agency/Leiden Observatory

- Project: *Exploring the clearness/cloudiness of the atmosphere of gas giant exoplanets*. Supervisors: Nicolas Crouzet and Sandor Kruk.

2017 Beca de colaboración (Collaboration scholarship) - Complutense University of Madrid, Spain

- Project: *Determining the membership of FGKM stars to young kinematic groups and associations by using GAIA data*. Supervisor: David Montes Gutiérrez.

Contribution in conferences

- 01/2020** Poster: *Exploring the clearness/cloudiness of the atmosphere of gas giant exoplanets.*
ARIEL: Science, Mission Community 2020 conference.
ESA/ESTEC, Noordwijk, The Netherlands.
- 04/2017** Poster: *Revisiting membership of late-type stars to stellar kinematic groups using Gaia-DR1.* IAU Symposium 330. Nice, France.

Observing experience

2019-Present SOPHIE Spectrograph, 1.93 m. Observatoire de Haute Provence, France.

Skills

■ Programming Languages

Fortran, Python, IRAF, IDL, LaTeX, MATLAB, R, Maple, SME.

■ Languages

Spanish: native.

English: level C1, Advanced Certificate in English (CAE).

French: level B1, intermediate.

Swedish: elementary.

■ Other

Spanish driving license (B), 2014.

Other activities

2017-2019 Board member of ALVA (Student astronomers association) - Lund University

08/2018 Summer school *Basics of Astrobiology* - University of Vienna, Austria.

06/2016 Complutense Summer School (Curso de verano Complutense) *The Moon: from labs to towns.* Complutense University of Madrid. El Escorial, Spain

2013-2017 Member of ASAAF (Amateur astronomers association) - Complutense University of Madrid

Publications

- *TOI-220 b: a warm sub-Neptune discovered by TESS.*
S. Hoyer, D. Gandolfi, D. J. Armstrong, M. Deleuil, **L. Acuña** et al. 2021
- *Characterisation of the hydrospheres of TRAPPIST-1 planets.*
L. Acuña, M. Deleuil, O. Mousis, E. Marcq, M. Levesque, A. Aguichine. 2021

- *Planetary system LHS 1140 revisited with ESPRESSO and TESS.*
J. Lillo-Box, P. Figueira, A. Leleu, **L. Acuña** et al. 2020
- *Masses for the seven planets in K2-32 and K2-233. Four diverse planets in resonant chain and the first young rocky worlds.*
J. Lillo-Box, T. A. Lopez, A. Santerne, L. D. Nielsen, S.C.C. Barros, M. Deleuil, **L. Acuña**, O. Mousis, S. G. Sousa, V. Adibekyan, D. J. Armstrong, D. Barrado, D. Bayliss, D. J. A. Brown, O.D.S. Demangeon, X. Dumusque, P. Figueira, S. Hojjatpanah, H. P. Osborn, N. C. Santos, S. Udry. 2020.
- *Detailed chemical compositions of planet hosting stars: I. Exploration of possible planet signatures.*
F. Liu, D. Yong, M. Asplund, H. S. Wang, L. Spina, **L. Acuña**, J. Melendez and I. Ramirez. 2020.
- *Irradiated ocean planets bridge super-Earth and sub-Neptune populations.*
O. Mousis, M. Deleuil, A. Aguichine, E. Marcq, J. Naar, **L. Acuña Aguirre**, B. Brugger, T. Goncalves. 2020.