

João P. FARIA

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Research Interests

Exoplanet detection and characterisation in radial-velocity data; modeling and correcting for the effects of stellar activity in photometry and radial velocities; adaptive scheduling of observations; probabilistic data analysis.

Education

ONGOING	Ph.D. in ASTRONOMY Advisors: Nuno C. SANTOS and Pedro FIGUEIRA Dissertation: "Exoplanet detection around metal-poor stars."	University of Porto
JULY 2013	M.Sc. in ASTRONOMY Advisors: Mário J. P. F. G. MONTEIRO and Margarida S. CUNHA Dissertation: "Asteroseismology of 16 Cyg A and B"	University of Porto
JULY 2011	B.Sc. in PHYSICS	University of Lisbon

Publications

- [A11] P. Figueira, **J. P. Faria**, and 3 other authors. A pragmatic Bayesian perspective on correlation analysis: the exoplanetary gravity – stellar activity case. *ArXiv e-prints*, jan 2016.
- [A10] **J. P. Faria** and 16 other authors. The HARPS search for southern extra-solar planets XL. Searching for Neptunes around metal-poor stars. *Astronomy and Astrophysics (accepted)*, 2016.
- [A9] **J. P. Faria** and 6 other authors. Uncovering the planets and stellar activity of CoRoT-7 using only radial velocities. *Astronomy and Astrophysics (accepted)*, 2016.
- [A8] A. Mortier, **J. P. Faria**, and 17 other authors. The HARPS search for southern extra-solar planets XXXIX. HD175607, the most metal-poor G dwarf with an orbiting sub-Neptune. *Astronomy and Astrophysics*, 585:A135, 2016.
- [A7] V. Adibekyan, P. Figueira, N. C. Santos, S. G. Sousa, **J. P. Faria**, and 8 other authors. Identifying the best iron-peak and α -capture elements for chemical tagging: The impact of the number of lines on measured scatter. *Astronomy and Astrophysics*, 583:A94, 2015.
- [A6] J. H. C. Martins, N. C. Santos, P. Figueira, **J. P. Faria**, and 10 other authors. Evidence for a spectroscopic direct detection of reflected light from 51 Pegasi b. *Astronomy and Astrophysics*, 576:A134, 2015.
- [A5] A. Mortier, **J. P. Faria**, and 3 other authors. BGLS: A Bayesian formalism for the generalised Lomb-Scargle periodogram. *Astronomy and Astrophysics*, 573:A101, 2015.

- [A4] P. Figueira, **J. P. Faria**, and 5 other authors. Exoplanet hosts reveal lithium depletion. Results from a homogeneous statistical analysis. *Astronomy and Astrophysics*, 570:A21, 2014.
- [A3] N. C. Santos, A. Mortier, **J. P. Faria**, and 21 other authors. The HARPS search for southern extra-solar planets XXXV. The interesting case of HD41248: stellar activity, no planets? *Astronomy and Astrophysics*, 566:A35, 2014.
- [A2] K. Verma, **J. P. Faria**, and 8 other authors. Asteroseismic estimate of helium abundance of a solar analog binary system. *The Astrophysical Journal*, 790:138, 2014.
- [A1] **J. P. Faria** and M. J. P. F. G. Monteiro. On the possibility of using seismic probes to study the core composition in pulsating white dwarfs. *Astronomische Nachrichten*, 333:954, 2012.

Talks / Posters

- T4 Highlights from the Astro Hack Week. *CAUP Cookie Seminar*. Porto. 14 Oct, 2015
- P1 A radial velocity search for low mass planets around metal-poor stars: first statistical results. *Extreme Precision Radial Velocities*. Yale University, 5-8 July, 2015.
- T3 The metal-poor survey. *CAUP Cookie Seminar*. Porto. 23 Apr, 2014
- T2 Acoustic Glitches in 16 Cygni. *6th Iberian Meeting on Astroseismology*. Aras de los Olmos, Spain. 27 May, 2013
- T1 MESA - Modules for Experiments in Stellar Astrophysics. *CAUP Cookie Seminar*. Porto. Jan, 2013

Participation in Conferences

- Astro Hack Week, New York University, 28 Sep - 2 Oct, 2015
- Extreme Precision Radial Velocities. Yale University, New Haven Connecticut, 5-8 Jul, 2015
- Habitability in the Universe: From the Early Earth to Exoplanets. Porto. 22-27 Mar, 2015

Teaching Experience

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| AUG 31 - SEP 4, 2015 | Escola de Verão de Física (Physics Summer School)
<i>Summer School, Faculty of Sciences, University of Porto</i>
Supervised a project about “The energy of stars” for a class of 5 high-school students. |
| MARCH 26-28, 2014 | Stellar evolution models with the MESA code
<i>Advanced Course, Center for Astrophysics University of Porto</i>
Developed and coordinated a series of three hands-on tutorial classes demonstrating the use of the MESA stellar evolution code (Paxton et al. 2011 ; 2013). |

Outreach

- *Mentes que Brilham (TV show)*, interview about the work published in [Martins et al. \(2015\)](#), May 13, 2015.
- *Universidade Júnior (University of Porto)*, monitor of scientific activities for middle-school students, July 2013.
- *Planetarium sessions (presenter)*, as collaborator of the Outreach Unit of CAUP, Summer 2013.
- *Noites no Observatório*, montlhy outreach events at the Lisbon Astronomical Observatory, 2010-2011.

Skills & Languages

- • • Python
- • C/C++

- • • git
- • • Fortran

- • • GNU/Linux
- • \LaTeX

- MATLAB

- Large-scale and/or multi-group projects • • •
- Multiple projects and/or experience teaching • •
- Small projects or assignments •

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- • • Portuguese
 - French

- • English
- Spanish

- Native speaker • • •
- Profficient • •
- Basic understanding •

Referees

NUNO C. SANTOS | ...

PEDRO FIGUEIRA | ...