

Curriculum Vitae

Identification

Name: Sousa, Sérgio António Gonçalves **Sex:** Male **Nationality:** Portuguese

Place of Birth: Vila Nova de Gaia, Portugal **Date of Birth:** 4th February 1981

Address: Rua da Vista Alegre nº230, 4505-817 Sanguedo, Santa Maria da Feira

Office Phone: +351226089892 **Mobile Phone:** +351936791007 **E-mail:** Sergio.Sousa@astro.up.pt

Actual Positions: Principal researcher at Institute of Astrophysics and Space Sciences/CAUP - CEECIND/00826/2018

Previous Positions:

2017-2024: Invited Assistant Professor at CESPU

2015-2020: FCT Investigador at Institute of Astrophysics and Space Sciences / CAUP – IF/00028/2014

2013-2014: Assistant Professor at Department of Physics and Astronomy, Porto University

2009-2015: Post-Doc Researcher at Centro de Astrofísica da Universidade do Porto, Portugal

Research Interests: Detection and characterization of planetary systems; Chemical characterization of Planet-host stars to understand extra-solar planets formation; Astronomical Data Analysis/Computational Astrophysics; Instrumentation;

a) Education:

Academic Degrees:

- 2012 Degree in Informatics Engineering - School of Engineering | Polytechnic of Porto
Classification 17 out of 20
- 2009 PhD in Astronomy - Porto University Science Faculty
Thesis: "Spectroscopic, Interferometric and Seismic Study of Solar-type Stars"
- 2004 Master Degree in Astronomy - Porto University Science Faculty
Thesis: "Wave Reflection in Rapidly Oscillating Ap Stars"
- 1999-2003 Physics/Applied Mathematics (Astronomy) Degree - Porto University Science Faculty
Classification: 15 out of 20.

Grants:

2009-2015 : Pos-Doc Grant, FCT reference: SFRH/BPD/47611/2008

2005-2009 : PhD Grant, FCT reference: SFRH/BD/17952/2004

2004-2005 : Research grant, reference: CAUP 01/2004-BI

Publication Summary since 2005 according with Astrophysics Data System (ADS) <http://adsabs.harvard.edu/>

h-index: 71 Total citations: 17057

Refereed Articles as 1st Author: 17 Total Refereed Articles: 335

Non Refereed Articles as 1st Author: 9 Total Non-Refereed Articles: 60

Relevant Activities:

- ESO's Scientific and Technic Comittee (STC) member 2018-2023 (national representative)
- Board Member of the ESA's CHEOPS mission
- ESPRESSO@VLT Science Team member; Chair of the Science team 2020-2021; Developer of Data Analysis Software
- Gaia-Eso Survey Co-I and Builder status
- PI of a national FCT research project (PTDC/FIS-AST/28953/2017)
- Co-I of 4 international (FP7, ERC) projects, and 10 FCT national research projects.
- ESO Panel member for OPC 97 and OPC 99
- Referee for Journals: ApJ, A&A, PASP, MNRAS; Referee for Funding agencies: NASA NSPIRES; NKFIH
- PI and CoI of several approved observing proposals in major telescopes and observatories: ESO La Silla and VLT (Chile), OHP (France), TBL (France); this includes 15 visitor mode observation missions at ESO, Chile since 2004

More Relevant Articles in International Journals with Referee

Sousa, S. G., et al.; "SWEET-Cat: A view on the planetary mass-radius relation", accepted for A&A, September, 2024.

Sousa, S. G., et al.; "SWEET-Cat 2.0: The Cat just got SWEETer. Higher quality spectra and precise parallaxes from Gaia eDR3", *Astronomy & Astrophysics*, Volume 656, id.A53, 13 pp. (2021).

Sousa, S. G. et al. "ARES v2: New features and improved performance", *A&A* 577, id.A67, 4 pp., 2015

Sousa, S.G. et al., "Spectroscopic stellar parameters for 582 FGK stars in the HARPS volume-limited sample. Revising the metallicity-planet correlation", *A&A*, Vol.533, id.A141, 2011

Sousa, S. G. et al.; "Spectroscopic parameters for 451 stars in the HARPS GTO planet search program. Stellar [Fe/H] and the frequency of exo-Neptunes", *A&A*, Vol. 487, Issue 1, 2008, pp.373-381

Sousa, S. G., et al., "A new code for automatic determination of equivalent widths: Automatic Routine for line Equivalent widths in stellar Spectrum (ARES)", *A&A*, Vol. 469, Issue 2, July II 2007, pp.783-791

Teaching and Supervision experience:

Finalized: 5 PhD student, 7 Master students, 20 undergraduate students, 6 post-docs

In progress: 1 PhD Students, 3 undergraduate students

Semester University Classes given for the Astronomy Master 2013/2014 at FCUP:

- Star Formation and Circumstellar Medium - Planetary Systems

Module "High Resolution Spectroscopy" for the Class "Topics in observation and instrumentation for Astronomy" for the Doctoral Program in Astronomy since 2013 at FCUP

Conference Organization:

SOC (Chair) & LOC (Chair): "Towards other Earths III", Porto, Portugal, 17-21 July 2023

SOC (Chair) & LOC: "GES 2014: Gaia-ESO Second Survey Science Meeting", Porto, Portugal, 10-13 Nov. 2014

SOC (Chair) & LOC (Chair): "Towards other Earths II", Porto, Portugal, 15-19 September 2014

SOC of conference "GES 2013 : Gaia-ESO Survey First Science", Nice, France, 8-11 April 2013

SOC (Chair) & LOC (Chair): "XXII ENAA", Porto, Portugal, 23-25 September 2012

LOC of the conference "An ESO workshop on: Toward Other Earths - perspective and limitations in the ELT era.", Porto, Portugal, 19-23 September 2009

Selected Oral Communications:

"SWEET-CAT v2: What can homogeneous stellar parameters provide to planetary systems studies?", PLATO wp122 scientific workshop, online, 9 December 2021

"SWEET-CAT and its contribution to CHEOPS", CHEOPS Science Workshop #5, Schloss Seggau. Austria, July 2017

"Precise spectroscopic stellar parameters for the CHEOPS targets", Bern, Switzerland, 15th May 2013

"The Metallicity Planet Correlation In The Harps Volume Limited Sample", ESO, Vitacura, Santiago de Chile, 2/10/2012

"Lithium Depletion in Solar Type stars: Lithium and planet presence", Cool Stars 16, Seattle, USA, September 2010

"Spectroscopic parameters for 451 stars in the HARPS GTO planet search program. Stellar [Fe/H] and the frequency of exo-Neptunes", Department of Physics and Astronomy, Faculty of Sciences, University of Aarhus, Denmark, May, 2008.

"Spectroscopic parameters for a sample of solar-type stars", "JENAM – 2007- Our Non Stable Universe" Simposio S2 - "Stellar Evolution and Asteroseismology", Yerevan, Armenia, 20-25 August, 2007.

Computer Skills:

OS: Windows and Linux

Programing: IDL, C, C++, Octave

PYTHON, Bash scripting

Tools: IRAF, LATEX, SQL, SVN, VirtualBox, GIT, Docker

Other Activities:

2010 – 2012 : Jury for the Portuguese Astronomy Olympics;