

# Curriculum Vitæ

## Alexandre SANTERNE

RESEARCH INTERESTS: EXOPLANETS (Detection and characterisation through transit and Doppler methods, statistical properties), DATA ANALYSIS (Bayesian methods).

### PERSONAL & PROFESSIONAL DATA

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PLACE & DATE OF BIRTH, CITIZENSHIP: Beauvais, France | 30 August 1986 | French  
INSTITUTE: Laboratoire d'Astrophysique de Marseille (LAM) | OSU PYTHÉAS  
Aix-Marseille University  
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### EMPLOYEMENT

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Now | **Junior Astronomer (Astronome Adjoint)** at AIX-MARSEILLE UNIVERSITY  
OCT 2016 | *Laboratoire d'Astrophysique de Marseille, Marseille, France*  
Half time working on exoplanet detection and characterisation from space- and ground-based data, a third time working on the preparation of ESA's M3 PLATO mission (leader of several PSM and PDC WPs), a sixth time teaching.

SEP 2016 | **Marie Curie Fellow** at INSTITUTO DE ASTROFÍSICA E CIÊNCIAS DO ESPAÇO  
OCT 2014 | *Centro de Astrofísica da Universidade do Porto, Porto, Portugal*  
Statistical validation of Earth-sized exoplanets with the PASTIS software, accounting for stellar activity. Grant agreement reference 627202.

SEP 2014 | **Advanced ERC Post-doc** at CENTRO DE ASTROFISICA DA UNIVERSIDADE DO PORTO  
JAN 2013 | *Centro de Astrofísica da Universidade do Porto, Porto, Portugal*  
Characterisation of exoplanets from the NASA *Kepler* space mission with ground-based spectrographs.

DEC 2012 | **Temporary Teaching and Research Assistant** at AIX-MARSEILLE UNIVERSITY  
OCT 2012 | *Laboratoire d'Astrophysique de Marseille, Marseille, France*

### EDUCATION AND DEGREES

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2024 | **Habilitation à diriger des recherches (HDR)**  
AIX-MARSEILLE UNIVERSITY, Marseille, France

2009 – 2012 | **Doctorate in Astrophysics and Cosmology**  
AIX-MARSEILLE UNIVERSITY, Marseille, France  
Thesis: "Characterisation of transiting exoplanets with radial velocity"  
Advisors: C. MOUTOU & F. BOUCHY  
Defense date: 2012, October 26  
Institute: Laboratoire d'Astrophysique de Marseille

2007 – 2009 | **Master in Astrophysics, Space Science and Planetology**  
UNIVERSITY PAUL SABATIER, TOULOUSE III, Toulouse, France

2004 – 2007 | **Licence in fundamental physics**  
UNIVERSITY OF BORDEAUX 1, Bordeaux, France

### MENTORING & TEACHING EXPERIENCE

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Post-Docs | Hugh Osborn (2017 – 2019), Sophia Sulis (2020-2022), Nathan Hara (2023-)  
PhD students | Théo Lopez (MESRI, 2017 - 2020), Salomé Grouffal (CNES/Inst. Origines, 2022 - 2025)  
Undergraduate students | 2 - 3 undergraduate students every year (L2 - M2)

Teaching | Personal, Professional and Student project for bachelor 1st, 2nd, and 3rd-year students. Referent teacher since 2019.  
Exoplanets course at Master2 level (since 2021)

## RESEARCH EXPERIENCE & ACTIVITIES

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PUBLICATIONS	169 peer-review publications, more than 7600 citations   H-index: 45 including 12 as first author (650+ citations).
SPACE MISSIONS INVOLVEMENT	Member of the <i>CoRoT</i> (CNES) Exoplanet Science Team (2009 – 2015) Member of the <i>PLATO</i> (ESA) consortium (since 2011) Active participation to the <i>PLATO</i> (ESA) Science Management for exoplanet science (WP11) and follow-up preparation (WP14). Leader of several WPs. Responsible for the development of the L2-L3 pipeline of the <i>PLATO</i> Data Center (WP367)
OTHER PROJECT INVOLVEMENT	Leader of the PASTIS software development (since 2014) Leader of the ESO-K2 team (2014 – 2018) Leader of the <i>Kepler</i> follow-up program and member of the exoplanet-search programs with the SOPHIE spectrograph (2010-2019) Col and member of the board of the KOBE survey on CARMENES/CalarAlto (since 2020)
PI OF ACCEPTED PROPOSALS	ESO: 91 nights in total on the ESO-3.6m telescope (HARPS), including a large program and 136 hours in total on the ESO-VLT (ESPRESSO + UVES), including a monitoring program OPTICON: 27 nights in total on HARPS-N/TNG, SOPHIE/OHP, and CARMENES/CalarAlto CFHT: 94 hours on ESPaDoNS FRENCH TELESCOPES: 169 nights on SOPHIE/OHP + 77 hours on NARVAL/TBL. NASA K2: 1 normal proposal + 1 DDT
REVIEWING EXPERIENCE	Referee for ApJ, A&A, PASP, Science, MNRAS, Icarus, BESPO programmes, & OPTICON proposals Exoplanet panel member for the NASA K2 mission (one cycle) Member of the ESO Observing Programme Committee (2 semesters) Member of the Topical Teams for ESA's Voyage2050 programme
COMMUNITY INVOLVEMENT	Member of SF2A since 2012 Member of the scientific council of LAM (2019 - 2023) Community Manager of LAM since 2023
SUSTAINABILITY ENGAGEMENT	Sustainability referent at LAM (since 2023) Member of the sustainability WGs for the CNRS/INSU and CNES scientific prospective seminars (2023 - 2024) Member of Labostpoint5, in several WGs (since 2022) Member of the Environmental mitigation committee of SF2A (since 2023) Facilitator and trainer of the serious game Ma Terre en 180 minutes (since 2023) Member of Astronomy for Planet Earth (since 2022)
CONFERENCES & OUTREACH	Invited talk in international conferences: 5 (2 declined for sustainability reasons) Invited talk for seminars: 15 LOC and/or SOC member of 6 international conferences, workshops, and school (chair of LOC & SOC for 2 of them) Regular outreach talks (1-2 per year). Several thousands people reached since 2005 Regular participation to Nuit des Étoiles and Fête de la Science (since 2005) Leader for an outreach project for the International Year of Astronomy 2009

## HONORS, PRIZES AND GRANTS

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- SF2A and SAF joint prize Gemini2020 for professional/amateur collaboration.
- October 2014: Marie-Curie Intra-European Fellowship (score: 92.3/100).
- October 2012: ESO photo ambassador.

## HOBBIES & NON-PROFESSIONAL ACTIVITIES

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Landscape & nightscape photography ([Flickr Gallery](#)), woodworking, swimming, biking, hiking, camping  
Honorific member of 2 amateur astronomy associations  
President of a condominium syndicate (200 housing) in 2018-2019.