

# Arthur Vigan

Chargé de Recherche au CNRS  
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Groupe Systèmes Planétaires  
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## EDUCATION

- 2018**      **Habilitation à Diriger des Recherches**, Aix-Marseille Université  
**2010**      **PhD Thesis**, Aix-Marseille Université. Supervision : Maud Langlois & Claire Moutou  
 2006      Master "Optique, Vision, Signal", Université Jean Monnet, St Etienne  
 2006      Optical engineering degree, Institut d'Optique *Graduate School*, Orsay

## CURRENT AND PREVIOUS POSITIONS

- 2013 – today**    **CRCN at CNRS, Laboratoire d'Astrophysique de Marseille**  
**2015**            **Operation Staff Astronomer, European Southern Observatory, Chile**  
 2012 – 2013    Postdoctoral position, Laboratoire d'Astrophysique de Marseille  
 2012            Invited researcher CRAL (Lyon, France) for one month  
 2010 – 2012    *Associate Research Fellow*, University of Exeter (UK)

## RESEARCH GRANTS

<b>2017</b>	<b>PI</b>	<b>ERC StG HiRISE : coupling SPHERE and CRRES+ at the VLT</b>	<b>1500 k€</b>
2017	PI	LAM : incentive funding	4 k€
2014	Co-I	CNES : postdoctoral funding for Roxanne Ligi	56 k€
2014	PI	Région PACA : ASOREX project on wavefront control	60 k€
2013	PI	LAM : manufacturing of the SLLC apodiser for SPHERE	10 k€
Regular	Co-I	Grants from French national programs	several k€/an

## OBSERVING PROGRAMMES

PI or Co-I on more than **80 observing programmes** at ESO, Gemini, CFHT or on HST since 2009, totaling more than 3500 hours of telescope time in open time or GTO programmes

## AWARDS AND DISTINCTIONS

- 2014            CNRS prize for scientific excellence  
 2015            Research grant from the City of Marseille

## SÉMINAIRES ET PRÉSENTATIONS INVITÉS

More than 40 oral contributions in conference, workshops or seminars in various institutes, including a dozen invited contributions.

Main invited contributions: CEA Saclay 2019 • Conference "Combining high-resolution spectroscopy and high-contrast imaging for exoplanet characterization", Caltech 2018 • ESO *Thirty Minutes Talk* 2018 • University of Exeter 2017 • Caltech 2017 • Universidad de Valparaiso 2015 • STScI colloquium 2015 • CFHT 2013.

## MAJOR COLLABORATIONS AND PROJECTS APPOINTMENTS

- 2017 – today** Associate member in the WFIRST/CGI Science Working Group
- 2017 – today** PI of the [ERC StG HiRISE](#) project to couple VLT/SPHERE and VLT/CRIRES+
- 2016 – today Member of the ELT/HARMONI science group
- 2015** Co-instrument scientist of VLT/SPHERE at ESO  
Member of the Instrument Operation Team of VLT/SPHERE
- 2014 – today** Co-I of the SHINE survey performed in SPHERE GTO time (70 people)  
Member of the SHINE leading team (10 people)  
**Responsible of the work package dedicated to exoplanet characterization**
- 2012 – today** Co-instrument scientist of the SPHERE/IRDIS instrument in SPHERE consortium  
Responsible of the validation of the 2 main observing modes (DBI and LSS modes)
- 2009 – 2014 Co-I of the NACO-LP large observing program (30 people)  
Responsible of the statistical analysis of the survey
- 2006 – 2009 Responsible of the laboratory and on-sky validation of the ZEUS sensor in the Active Phasing Experiment

## SUPERVISION AND TEACHING

### **Post-docs supervision**

- 2018 – today Gilles Otten Post-doc ERC. Development of the SPHERE/CRIRES+ coupling
- 2015 – 2017 Roxanne Ligi Post-doc CNES. Validating Kepler exoplanet candidates with VLT/SPHERE
- 2014 – 2015 Graeme Salter Post-doc ANR. Exploiting VLT/SPHERE commissioning and first-light data

### **PhDs supervision**

- 2018 – 2021 Mathis Houllé [100%] Combining high-contrast and high spectral resolution
- 2016 – 2019 A.-L. Cheffot [30%] Development of cophasing techniques for the ELT
- 2012 – 2015 Alice Zurlo [30%] Laboratory and on-sky validation of VLT/SPHERE

### **Other**

- 2016 – 2019 Regular R. Pourcelot [50%] Engineer apprentice. Upgrading the MITHIC high-contrast testbed  
Interns at various levels (BA, MSc)

### **Teaching**

- 2015 Adaptive optics, coronagraphy and high-contrast imaging course at ESO
- 2015 Training on SPHERE of ESO fellows, night astronomers and Telescope Operators
- 2010 – 2015 Lecture on coronagraphy at Aix-Marseille University (MSc level)
- 2011 – 2012 Astronomical data reduction at the University of Exeter (BA level)

## OUTREACH AND PRESS RELEASES

- 2018** Invited to *La Tête au Carré* on the French national radio France Inter
- 2018** Participation to the “Search for New Earth” documentary (BBC/France 5)
- 2017 Discovery of the first exoplanet with VLT/SPHERE, HIP 65426 b
- 2017 – 2018 Presentation of professional astronomer’s work in elementary and high schools
- 2014 First light VLT/SPHERE
- Regular Outreach conferences & participation to the French national Science celebration

### **COMMISSION OF TRUST**

#### **National and international level**

Confidential	Expert for the European commission (H2020 programs)
Confidential	Expert for the Chilean National fund for scientific & technological developments (CONICYT/FONDECYT)
Confidential	Expert for the Natural Sciences and Engineering Research Council of Canada (NSERC)
2017-2018	Member of the ESO Observing Programme Committee
2015	ESO SPHERE proposals reviewer and technical feasibility
Regular	Member of PhD committees
Regular	Referee for astrophysics and optics papers

#### **Local level**

2018 – today	Member of the LAM laboratory council (CL)
2018 – today	Member of the LAM instrumentation steering committee (CPI)
2017 – today	Member of the Aix-Marseille University ERC support committee (CERCle)
2013 – 2014	Co-representative of the exoplanet group at the LAM scientific council
2012 – 2013	Organization of the seminars at LAM
2011 – 2012	Organization of the astrophysics seminars at the University of Exeter
2007 – 2009	Student representative at the LAM and OAMP scientific councils

#### **Scientific societies**

International	SPIE lifetime member
National	SF2A

### **ORGANISATION OF SCIENTIFIC MEETINGS**

2015	SOC, conference “OHP 2015 : Twenty years of giant exoplanets”, 100 participants
2015	SOC, ONERA scientific days, Paris, 50 participants
2013	LOC, workshop “Exoplanet validation”, Marseille, 50 participants

### **PUBLICATIONS**

- **95 peer-reviewed publications**, including **10 as first author**
- **50 SPIE publications**, including **11 as first author**
- **2900+ citations**, including 400+ for first-author publications (*Google scholar*)
- **h-index = 31**