

# Amaury H.M.J. Triaud

from Bordeaux, France, born 1984

Kavli Institute fellow  
Institute of Astronomy  
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## Scientific experience

104 scientific publications published in peer-reviewed journals (~2900 citations). H-index: 31.  
Oral presentations at more than 30 conferences, seminars and colloquia, in the Americas and Europe.  
Reviewer for the journals A&A, MNRAS, ApJ. Reviewer for funding agencies: CONICYT, DFG.

Nov 15 - Oct 20 Kavli Institute fellow at the Institute of Astronomy, University of Cambridge, UK.  
Nov 14 - Oct 15 Postdoctoral fellow at the Centre for Planetary Sciences, University of Toronto, Canada  
Jan 13 - Nov 14 Postdoctoral fellow at MIT, Cambridge, MA, USA.  
Aug 07 - Dec 12 PhD and postdoctoral research at Observatoire de Genève, Switzerland.  
Sep 06 - May 07 Masters' research, University of St Andrews, Scotland.  
Summer 2006 Research internship at Observatoire de l'Université de Genève, Switzerland  
Winter 2006 Research internship, University of St Andrews, Scotland  
Summer 2005 Research internship, Schiller Universität Jena, Germany  
Summers 03 & 04 Research internships, Université de Bordeaux, France

## Scientific responsibilities

Co-I in SPECULOOS, a new ground-based transit search. I gathered funding to pay for our detectors.  
PI of a search for planets orbiting binary stars, using radial velocities.  
PI of a 7-year long programme on HARPS on the Rossiter-McLaughlin effect (5 to 10 nights/year).  
PI on the study of low mass eclipsing binaries in WASP, the EBLM project.  
Manager of the confirmation of WASP exoplanet candidates in the Southern Hemisphere (~120 nights/year on the Euler Telescope), this led to the discovery of now more than 100 transiting planets.  
PI of a number of additional accepted observing programmes on space and ground based facilities.

## Research Interests and achievements

Initiated a search for rocky planets transiting the nearby brown dwarf pair Luhman-16. Instead rapidly evolving weather in the atmosphere of one component was detected, a first outside the Solar system.  
Used the Euler telescope to confirm more than 100 transiting exoplanets, in collaboration with WASP.  
Observed more than 40 of these exoplanets to detect the Rossiter-McLaughlin effect. This produced the first evidence that a large fraction of hot Jupiters are not on coplanar orbits.  
The atmospheric characterisation of transiting gas giants.  
The discovery of hundreds of low mass eclipsing binaries, ~100 are under 0.2 Solar masses, and two transiting brown dwarfs. Study of orbital parameters, confirmation of the brown dwarf desert. Mass-radius-luminosity-metallicity relationship at the bottom for the Main Sequence.  
The study, characterisation and search of transiting circumbinary planets.  
The establishment of the first colour-magnitude diagrams for transiting exoplanets.

## Languages

French (mother tongue), English (fluent), Spanish (good), German (beginner)

## Student supervision

- Summer 2015 Two undergrads (Caden Armstrong & Matthias He) and two PhD students (Ryan Cloutier & Emil Terziev) at the University of Toronto. Each on independent research projects.
- Jan 2013 - ... David V. Martin PhD candidate at Geneva University, Switzerland (official supervisor Stéphane Udry). Papers: Martin & Triaud (2014 & submitted).
- Aug & Sep 2012 David V. Martin Masters student at Monash University, Australia (official supervisor Rosemary Mardling), in exchange at Geneva University.
- June 2012 - ... Marion Neveu-VanMalle PhD candidate at Geneva University, Switzerland (official supervisor Didier Queloz). Limited supervision. Paper: Neveu et al. (2014 & in prep).
- Additional supervision of undergraduates, lectures at the bachelor and masters level, outreach.

## Education

- August 2011 Science Doctorate, Astronomy & Astrophysics, Université de Genève, Switzerland
- Aug 2007 - Aug 11 Doctoral school at the Université de Genève, Switzerland
- June 2007 MPhys Astrophysics with Honours from the University of St Andrews, school of Physics & Astronomy, Scotland. First class degree. Class medal.
- Sep 02 - June 07 University of St Andrews, school of Physics & Astronomy, Scotland
- June 2002 Scientific Baccalauréat, Mathematics specialty, Mention Bien
- Sep 99 - June 02 Lycée St Martin, Angers, France

## Prizes & Distinctions

Kavli Institute fellowship 2015, University of Cambridge, United Kingdom  
Centre for Planetary Sciences fellowship 2014, University of Toronto, Canada.  
MERAC prize 2014: best European thesis in Observational Astrophysics, defended over 2011, 12 & 13  
Swiss National Science Foundation advanced fellow, for the year 2014, at MIT (Cambridge, MA, USA)  
Swiss National Science Foundation early fellow, for the year 2013, at MIT (Cambridge, MA, USA)  
Plantamour-Prévost prize 2011, Université de Genève, for best scientific work in the Science Faculty  
ABB prize 2011, Swiss Physical Society, for best scientific work in Physics by a young researcher  
Robert A. Naef prize 2010, for best written article, Orion Magazine, Swiss Astronomical Society

Five class medals from the University of St Andrews, Scotland  
Cormack Vacation Research Scholarship, Royal Society of Edinburgh, 2006, for the financial support of a joint research project at St Andrews (UK), Genève (CH) and the Observatoire de Haute-Provence (FR)

## Outreach

- 2015 Creation of an exoplanet exhibit at the University of Toronto at Scarborough
- 2014 Initiator and participant of an “outreach for scientists of all fields”, organised through the Boston Chapter of the Swiss National Science Foundation.
- Autumn 2012 - ... Scientific consulting on the script of a medium feature film
- January 2012 Scripting and acting in a short film
- October 2011 - ... Scientific consulting for a sci-fi novel trilogy entitled *Quantika* (first two are published)
- Sep 07 - Dec 12 Outreach in Geneva: public lectures, debates, scientific cafés, observing nights, visits of the observatory, classroom interventions, multidisciplinary seminars, exhibits
- Sep 03 - June 06 Editor of the magazine *Aurora*, St Andrews Astronomical Society

General public articles: Orion Magazine, Switzerland (2009); Kosmos, Sweden (2013).  
Interviews on radio and TV channels in Switzerland & Canada.

## Hobbies

Fencing, Photography, Tango, Debating, Hiking, (G)astronomy, Travelling, Creativity in general...