



Kevin Baillié

ASTRONOMER & PLANETARY SCIENTIST PhD in Astrophysics – University of Central Florida

PERSONAL

DoB: January 16 th, 1980
Nationality: french

CONTACT

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SKILLS

- > English: bilingual proficiency
 - TOEIC: 950/1000
 - TOEFL : 102/120
 - US Resident for 3 years
- > IT
 - Python
 - C / C++ / Fortran
 - IDL / Matlab
 - HTML / Javascript
 - Unix / Linux
 - L^AT_EX / Beamer
 - Open / Libre Office

CENTRES D'INTÉRÊTS

- > Astrophotography
- > Strategy games (Diplomacy european vice-champion)
- > LARP
- > Volcanic hotspots collection

REFERENCES

- > Dr Jacques Laskar (IMCCE)
laskar@imcce.fr
- > Pr Joshua E. Colwell (UCF)
josh@ucf.edu
- > Dr Valéry Lainey (IMCCE)
lainey@imcce.fr
- > Pr Sébastien Charnoz (IPGP)
charnoz@ipgp.fr

PROFESSIONAL EXPERIENCE

- Since 2018** **CNRS Research Scientist (French National Centre for Scientific Research)**
IMCCE (Institut de Mécanique Céleste et de Calcul des Éphémérides), Observatoire de Paris
The natural satellites : an extension of the habitable zone
- 2017-2018** **CNES Postdoc (French National Centre for Space research)**
IMCCE (Institut de Mécanique Céleste et de Calcul des Éphémérides), Observatoire de Paris
Planet and satellite formation
Ground observations of natural satellites (Pic du Midi)
- 2015-2017** **Paris Observatory Postdoc**
IMCCE (Institut de Mécanique Céleste et de Calcul des Éphémérides), Observatoire de Paris
Planetary formation and satellite observations (OHP, Pic du Midi)
MSc lectures in Engineering Schools: ECP (M2), IPSA (M1)
- 2013-2015** **University Sorbonne-Paris-Cité Postdoc**
IPGP (Institut de Physique du Globe de Paris)
Disk-planet interactions and planetary migration
- 2011-2013** **Teaching Associate Researcher**
University Paris Diderot, CEA Saclay – AIM
Protoplanetary disk numerical models
Formation of the solar system early meteorites
- 2008-2011** **PhD in Astrophysics – Planetary Science Track**
University of Central Florida (UCF) - Planetary Science Dept.
Thesis : “Fine-scale structures in Saturn’s Rings: Waves, Wakes and Ghosts”
PhD advisor : Pr J.E. Colwell. With Honors.
Space observations : Cassini UVIS data
Numerical models of satellite-ring interactions
- 2005-2008** **R&D Engineer**
Thomson Telecom / Inventel
WIFI hardware solutions
European project coordinator

EDUCATION

- 2005** **Observatoire de Paris**
Master of Science in “Astronomy & Astrophysics”
“Gravitationnal System Dynamics” Track
With Honors
6 months internship at CEA Saclay: Numerical and observational study of Saturn’s F ring from Cassini data
- 2005** **École Supérieure de Physique et de Chimie Industrielles**
Master of Science in Physics and Chemistry
6 months internship at the National Oceanographic and Atmospheric Administration - San Diego, CA. : oceanic Bioacoustics

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PUBLICATIONS

- 17 articles (h-index: 11)
- 18 proceedings
- 22 oral presentations (3 “Invited” talks)
- 6 press releases
- 1 astrometrical reduction software (CAVIAR)

TEACHING

- Lectures :
 - ➔ ECP : 24 h in M2
 - ➔ IPSA : 20 h in M1
 - ➔ UCF : 20 h in BSc
- Lab teaching and tutoring :
 - ➔ Paris Diderot University : 192 h + 96 h in L3-M1
 - ➔ UCF : 150 h in BSc

MANAGEMENT

- 2 PhD students (co-advisor)
- 5 M2-Grad students (+M1/L3)

OBSERVATIONS

- OHP: T120, T80
- Pic du Midi: T1M
- Robinson Obs. (UCF): 20”
- Regular MPC submissions

SPACE MISSIONS

- Cassini : UVIS, ISS, CIRS
- JUICE :
 - ➔ WG « Satellites »
 - ➔ WG « Rings »
- PLATO :
 - ➔ WP « Exomoons »
 - ➔ WP « Protoplanetary disc models »
 - ➔ WP « Disc-planet interactions »

PROJECTS AND FUNDINGS

Principal Investigator (PI) of the “EXOCÉANS” project

Oceans on Jupiter moons: formation and characterization

Building a cross-lab team aiming at modeling the internal oceans of natural satellites
ANR Project (JCJC), submitted in nov. 2021 (under review)

Principal Investigator (PI) of the “IMPACTS” project

Estimating the meteoritic flux across the solar system from the impacts on Jupiter and Saturn

Coordination of ground observations: Pic du Midi, OHP, amateurs
Europlanet NA1 Workshop (funded in 2018)

<https://www.imcce.fr/recherche/campagnes-observations/impacts/impacts>

Coordinator of the “ENCELADE 3.0” working group

Constraining the dynamics and inner structures of Saturn and Jupiter from astrometrical observations

Programme Blanc du Conseil Scientifique de l’Observatoire de Paris (funded in 2019)

<http://www.issibern.ch/teams/encelade>

Co-Investigator (Co-I) of the “ePARADISE” project

Exoplanetology and Planetology with infrARed Adaptive high Dynamic Imaging SystEm

Developing of a High Dynamic Adaptive Optics for the 1-meter telescope at Pic du Midi
ANR Project (PRC) submitted in nov. 2021 (under review). PI: François Colas

<https://www.imcce.fr/recherche/campagnes-observations/eparadise/eparadise>

RESEARCH ADMINISTRATION AND RESPONSABILITIES

IAU Member (Divisions A, B, F)

SF2A Board Member Substitute (2020-)

Elected representative to the Lab and Scientific Boards

Organization of the lab prospective analysis

Organization of transverse internal formations

PEGASE team website manager

<https://www.imcce.fr/recherche/equipes/pegase/>

CONFERENCE ORGANIZATIONS

Annual conference of the SF2A 2020-2021 (LOC) - Paris

IMPACTS project (SOC) - Pic du Midi

Pic du Midi T1M training for amateurs and professionals

Observation campaign for impacts on Jupiter and Saturn

2011 Next-Gen Suborbital Researchers Conference (SOC) - UCF

Winter Workshop 2010: Exoplanets for Planetary Scientists (LOC) - UCF

OUTREACH

Organization of a “Day of the Planets” event at Pic du Midi

School class mentoring (2018-)

Co-head of the Robinson Observatory telescope (2008-2011)

Scientific summer camp director (2001-2015)

French Science Festival events at ESPCI (2001-2005)

Scientific conferences in high schools (1998-2005)