Couturier Jérémy

Curriculum Vitae

Formation

2024 – 2027 **Observatory of Geneva**
PostDoc
Resonance chains, 3-planet resonances

2022 – 2024 **University of Rochester**
PostDoc
Formation of the Moon from a protolunar disk, dynamics of resonance chains

2019 – 2022 **IMCCE**
PhD
Dynamics of co-orbital planets with a focus on the influence of tides and resonance chains

2018 – 2019 **Observatory of Paris / University Paris Diderot**
Double degree with EMSE
MSc : Dynamics of gravitational systems

2017 **Pontifical University of Chile**
Academic mobility
Fluids mechanics, General relativity, Advanced field theory

2016 – 2019 **Saint-Etienne Engineer School of Mines (EMSE)**
Civil engineer
Mathematics, Physics, Network, Image processing

2014 – 2016 **Blaise Pascal preparatory school, Clermont-Ferrand**
Grade point : A
Mathematics, Physics, Computer science, English

Experiences

Teaching at Sorbonne university – 2020 & 2021
I taught lab work of fluids mechanics to third years students, as part of a teaching responsibility associated with my PhD.

Internship – Spring 2019
Three months master thesis at the IMCCE. Hamiltonian mechanics : Determination of an analytic expresion of the motion of the Moon using Lie's transformation. The elaborated model is a 3-body problem with tidal dissipation.

Humanitarian trip – 12/2017 – 02/2018
A two month and a half trip in a native community in the peruvian jungle. I lived within the community and I taught english to the children as well as I helped the adults with the laboral work.

Teaching experience in Peru 07/2019 – 09/2019
I taught fluids mechanics to third year license students at the Continental University in the frame of a volunteer work organized by the NGO *Niños del Futuro*, the same organization that welcomed me for my humanitarian trip in december 2017.

jeremycouturier.com
6 rue Camponac, Pessac, France
+33601461030
jeremy.couturier@rochester.edu
jeremy.couturier@obspm.fr

Spoken languages

English & Spanish	Fluent
French	Native
German & Portuguese	Written

Computer science

Operating system	Linux (Ubuntu)
Software	LaTeX, Maxima
Languages	C & Python

Leisure activities

Sports	Mountain bike, Hiking
Others	Juggling, Kerbal Space Program

Publications

→ **An analytical model of tidal evolution in co-orbital systems**
Accepted June 12th, 2021 | PDF | ArXiv

→ **Dynamics of co-orbital exoplanets in a first order resonance chain with tidal dissipation**
Accepted April 8th 2022 | PDF | ArXiv

→ **NcorpiON : A O(N) software for N-body integration in collisional and fragmenting systems**
Accepted Sept. 19th 2024 | PDF | ArXiv