

Enzo FRANCISCO

PhD Student at CEA Paris-Saclay

Research interests : Dissipation rate in fluid flows, innovative measurement techniques, light scattering, turbulence, surface waves, spectroscopy

Education

Oct. 2021 – Oct. 2024 PhD at SPEC (*Service de Physique de l'État Condensé*), CEA Paris-Saclay, under the supervision of Sébastien Aumaître and Basile Gallet, on spatiotemporal boundary dissipation measurement in fluid flows using Diffusing-Wave Spectroscopy. CEA Paris-Saclay is a major research institution in France. It is part of the confederation of the Paris-Saclay University that was ranked 2nd in Mathematics and 3rd in Physics in 2023 Shanghai ranking.

2020 – 2021 3rd year at École Centrale Paris, *Diplôme d'ingénieur* Master's degree in Physics.

2017 – 2019 1st and 2nd years at École Centrale Paris (now CentraleSupélec), one of the top 3 *Grandes Écoles* out of 200, and part of the confederation of the Paris-Saclay University. Participation to the French Physicists' Tournament 2018 (French version of IPT). Includes a 5 months academic exchange in Physics of Energy at DTU (Danmarks Tekniske Universitet), Copenhagen, Denmark.

2015 – 2017 Preparatory classes to the *Grandes Écoles* at Lycée Henri IV (Paris). France's *Grandes Écoles* are prestigious engineering schools focused on technical and scientific disciplines. To enter one of them, students have to take two years of very demanding courses in preparatory classes, to take highly selective nationwide competitive exams.

July 2015 *Baccalauréat* (French high school diploma) in Science with highest honors.

Experience

Since 2022 Teaching: Practical class "Physics of electromagnetic waves" at CentraleSupélec.

May 2022 Teaching: Experimental class "Experimental fluid dynamics" at ENSTA Paris.

Feb. 2020 Five-month internship at LEGA (*Laboratoire d'Etudes Géophysiques et Aléas*), CEA.

– June 2020 Study of the Proudman resonance and simulations of meteotsunamis.

Sep. 2019 Five-month internship in R&D in biomimetic projects at Bioxegy, Paris. Transposition

– Jan. 2020 of biological functions to an industrial R&D framework for SNCF, Safran and GSF.

Publications

Francisco, E., Bouillaut, V., Wu, T. & Aumaître, S. (2023). Spatiotemporal boundary dissipation measurement in Taylor–Couette flow using diffusing-wave spectroscopy. *Exp Fluids* 64, 156. <https://doi.org/10.1007/s00348-023-03693-w>

Date of birth :
20/01/1998

Nationality : French

E-mail :
enzo.francisco@cea.fr

Languages

French : Native

English : Fluent

Spanish :
Upper-intermediate

Portuguese : Basic

Numerical languages

Matlab

Python

Fortran

Experimental skills

Use of Class 4 lasers

High-speed cameras
imaging and processing

Use of photomultiplier
tubes and correlators

Set-up and use of light
scattering systems (DLS,
SLS, DWS)

Familiar with CAD, 3D
printing and laser cutting

Familiar with Labview

Awards

Young Scientist Award
from the EUROMECH
society at ETC18
(European
Turbulence Conference)