Victor Fournet

Curriculum Vitæ

4 place Jussieu
75005 Paris, France
victor.fournet@sorbonne-universite.fr
https://victorfournet.github.io
Born 16/10/1997

Education

2021-2024 **Ph.D. in Applied Mathematics**,
Subject: ***Mathematical modeling and advanced numerical methods for fluid-particles interaction***,
Advisors: Christophe Buet and Bruno Després,
Laboratoire Jacques Louis Lions and Commissariat à l'énergie atomique

2020-2021 **Master 2 in mathematics**, *Sorbonne Université*, Paris, France
Mathematics of modelisation

2019-2020 **Master "Préparation à l'agrégation"**, *Sorbonne Université*, Paris, France

2018-2019 **Master 1 in mathematics**, *Sorbonne Université*, Paris, France

2015-2018 **Bachelor in mathematics**, Sorbonne Université, Paris

2015-2018 **Bachelor in physics**, Sorbonne Université, Paris

Research interest

Analysis of partial differential equations, numerical analysis, kinetic theory, fluid mechanics

Publications and preprint

[1] C. Buet, S. Del pino, and V. Fournet. **Construction, analysis and implementation of two nodal finite volume schemes for the P_N model for particle transport in 2D**. preprint, Mar. 2024.

[2] C. Buet, B. Després, and V. Fournet. **Analog of Linear Landau Damping in a coupled Vlasov-Euler system for thick sprays**. *Communications in Mathematical Sciences*, 0(0):0–0, 2024.

[3] V. Fournet. **Investigation on the stability in a thick spray model**. *ESAIM: Proceedings and Surveys*, 0(0):0–0, 2024.

[4] V. Fournet, C. Buet, and B. Després. **Local-in-time existence of strong solutions to an averaged thick sprays model**. *Kinetic and Related Models*, 0(0):0–0, 2023.

Internship

January 2018-April 2018 **Internship under the supervision of Didier Smets**, *Laboratoire Jacques Louis Lions (LJLL)*, Sorbonne Université, Paris
Eikonale equation and application for shape from shading

January 2019-June 2019 **Internship under the supervision of Vincent Humilière** , *Institut Paris Rive Gauche*, Sorbonne Université, Paris
The h-principle

April 2021-September 2021 **Internship under the supervision of Christophe Buet and Stéphane Del Pino**, *Commissariat à l'énergie atomique et aux énergies alternatives (CEA)*
Sujet : *Construction, analysis and implementation of nodal finite volume scheme for the P_N model*

Talks and poster

May 2024 **CANUM**, Ile de Ré, France
Talk

November 2023 **PhD student's seminar**, Sorbonne Université, Paris
Talk

November 2023 **Numkin**, *Max Planck Institute for plasma physics*, Garching, Germany
Talk

September 2023 **Conference for young research in Mathematics and Applications**, Gif-sur-Yvette, France
Talk

May 2023 **SMAI congress**, Point à Pitre, Guadeloupe
Talk

December 2022 **Kinetic and hyperbolic equations: modeling, analysis and numerics**, *Institut de Mathématiques de Toulouse*, Toulouse, France
Talk

June 2022 **CANUM**, Evian les bains, France
Poster

Teaching

2022 **Analysis**, *Exercise sessions in 1st year of B.Sc (53h)*, Sorbonne Université

2018-2020 **Tutoring in mathematics**, *Exercise sessions for 2nd/3rd year B.Sc student in analysis and algebra*, Sorbonne Université

Computer skills

Advanced knowledge **Python, LaTeX**

Basic knowledge **C++**

Languages

French, *Native*

English, *Professional working proficiency*

Spanish, *Basic knowledge*

References

Bruno Després **Professor at Sorbonne Université**, *Laboratoire Jacques Louis Lions*, bruno.despres@sorbonne-universite.fr
PhD advisor

Christophe Buet **Research engineer at CEA**, *Commissariat à l'énergie atomique*, christophe.buet@cea.fr
PhD advisor