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research

❖ postdoctoral researcher

Laboratoire d'Hydrodynamique de l'Ecole Polytechnique (LadHyX)

2026–

Palaiseau, FRANCE

- advisor: Etienne Jambon-Puillet;

❖ doctoral assistant

Laboratory of Fluid Mechanics and Instabilities, EPFL

2021–2025

Lausanne, SWITZERLAND

- thesis title: “Gravity-driven thin films: flow and dissolution;”
- advisor: François Gallaire;

❖ research intern

2017–2021

- “Fingering instability on a sphere” (F. Gallaire, LFMI, Feb–Jul 2021);
- “Impact-induced cavitation” (C. Raufaste & F. Celestini, INPHYNI, Apr–Jul 2020);
- “Electric double-layer dynamics” (A. Würger, LOMA, May–Jun 2019);
- “Turbulent friction in 2D rough-walled flows” (H. Kellay, LOMA, May 2018–Apr 2019);
- “Femtosecond laser spectroscopy” (J. Degert, LOMA, May–Jun 2017);

teaching

❖ epfl: ME-444 Hydrodynamics (2023, 2025); ME-466 Instability (2023, 2024);

ME-446 Two-Phase Flows and Heat Transfer (2022);

PHYS-106(d) Thermodynamics (2022); PHYS-101(d) Mechanics (2021);

co-supervision of two master's students (2023, 2024);

education

❖ ph.d. in mechanics

EPFL

2021–2025

Lausanne, SWITZERLAND

❖ m.sc. in physics

Université Côte d'Azur

2019–2021

Nice, FRANCE

❖ b.sc. in physics

Université de Bordeaux

2016–2019

Bordeaux, FRANCE

❖ highschool diploma

French language Highschool “Alphonse de Lamartine”

2011–2016

Sofia, BULGARIA

languages

bulgarian (native); french (fluent); english (proficient); german (elementary proficiency);

interests

piano (ABRSM, Grade 8), choir (CHUL), F. M. Dostoevsky, pétanque, sudoku, sailing, swimming;

publications

- [6] S. Djambov, F. Gallaire. “Analytical solutions to the gravity-driven rain-fed free-surface Stokes equations,” *under review in Comptes Rendus. Mécanique*.
- [5] M. Chaigne, A. Maller, **S. Djambov**, M. Berhanu. “Dissolution rate of a soluble surface in a unidirectional turbulent flow,” *under review in Journal of Fluid Mechanics*.
- [4] S. Djambov, F. Gallaire. “Linear instability of weakly non-parallel film flows,” *under review in Journal of Fluid Mechanics*.
- [3] S. Eghbali, **S. Djambov**, F. Gallaire. “Stability of asdjambov.github.io liquid layer draining around a horizontal cylinder: Interplay of capillary and gravity forces,” *Physical Review Fluids* **9**(6), 063903, 2024.
- [2] S. Djambov, F. Gallaire. “Boundary-layer approach to the linear karren instability,” *Journal of Fluid Mechanics* **977**, R3, 2023.
- [1] A. Vilquin, J. Jagielka, **S. Djambov**, H. Herouard, P. Fischer, C.-H. Bruneau, P. Chakraborty, G. Gioia, H. Kellay. “Asymptotic turbulent friction in 2D rough-walled flows,” *Science Advances* **7**(5), eabc6234, 2021.

grants

- ❖ **epfl doc.mobility:** six-month-long stay with S. Courrech du Pont at MSC with a project funded for nearly 20 kCHF, Feb–Aug 2024;