

# Simeon DJAMBOV

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Born: 1998 in Sofia, BULGARIA

## Education

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### ❖ Ph.D. in Mechanics

2021–

Laboratory of Fluid Mechanics and Instabilities, EPFL

Lausanne, SWITZERLAND

- Provisional thesis title: “Thin Film Instabilities and Morphogenesis: from Parallel to Non-parallel Flows”;
- Supervisor: Prof. François Gallaire;
- Doc.Mobility: “Condensation on Soluble Substrates: a Path to Impact-less Linear Karren Formation” (MSC, S. Courrech du Pont, February–July 2024);
- Summer schools: “Interfreeze” (Cargèse, Corsica, FRANCE, May 2023);  
“Fluid Flow and Phase Change of a Solid” (Udine, ITALY, July 2022);
- Teaching assistant: ME-466 Instability (F. Gallaire, 2023);  
ME-444 Hydrodynamics (F. Gallaire, 2023);  
ME-446 Two-Phase Flows and Heat Transfer (F. Gallaire, 2022);  
PHYS-106(d) Thermodynamics (S. Bréchet, 2022);  
PHYS-101(d) Mechanics (P. Müllhaupt, 2021);
- Student supervisor: “Dissolution Fingerprint left by the Spreading of a Drop on an Inclined Soluble Substrate” (Master, Ecole Polytechnique, 2023);

### ❖ M.Sc. in Physics

2019–2021

Université Côte d’Azur

Nice, FRANCE

- Research internships: “Fingering Instability on a Sphere” (LFMI, F. Gallaire, February–July 2021);  
“Impact-induced Cavitation” (INPHYNI, C. Raufaste and F. Celestini, April–July 2020);

### ❖ B.Sc. in Physics

2016–2019

Université de Bordeaux

Bordeaux, FRANCE

- Research internships: “Electric Double-layer Dynamics” (LOMA, A. Würger, May–June 2019);  
“Turbulent Friction in 2D Rough-walled Flows” (LOMA, H. Kellay, May 2018–April 2019);  
“Femtosecond Laser Spectroscopy” (LOMA, J. Degert, May–June 2017);

## Languages

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Bulgarian (native); French (fluent); English (proficient); German (elementary proficiency);

## Interests

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

## Publications and Conferences

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- [1] S. Djambov, F. Gallaire. “Weakly non-parallel linear instability of a condensing film flow,” in preparation.
- [2] S. Djambov, F. Gallaire. “Toy-model for the formation of rillenkarrén by rainfall,” poster presentation at the 27<sup>e</sup> Rencontre du Non-Linéaire in Paris, March 2024.
- [3] S. Djambov, F. Gallaire. “Boundary-layer approach to the linear karrén instability,” *J. Fluid Mech.* **977**, R3, 2023.
- [4] S. Djambov, F. Gallaire. “Weakly non-parallel stability of a condensing film flow,” oral presentation at the 15th European Coating Symposium in Paris, September 2023.
- [5] S. Djambov, F. Gallaire. “Kapitza instability of Nusselt’s condensation film,” oral presentation at the 11th Conference of the International Marangoni Association in Bordeaux, June 2023.
- [6] S. Eghbali, **S. Djambov**, F. Gallaire. “Stability of liquid film coating a horizontal cylinder: interplay of capillary and gravity forces,” arXiv:2305.08436, under review in *Phys. Rev. Fluids* (submitted in May 2023).
- [7] S. Djambov, F. Gallaire. “Fingering instability on a sphere,” oral presentation at the 14th European Fluid Mechanics Conference in Athens, September 2022.
- [8] 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,” *Sci. Adv.*, **7**(5), eabc6234, 2021.