

Vincent Bertin

☐ +336 777 525 85
☐ vincent.bertinn@gmail.com
⑤ https://vincent-bertin.github.io/
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Education

2021 - 2023 Postdoc, University of Twente - Physics of Fluids group

2018 - 2021 PhD in physics, University of Bordeaux & ESPCI Paris

Flows at soft interfaces: the roles of elasticity, capillarity & fluctuations. Defended in September 2021. Under the supervision of *Thomas Salez* and *Elie Raphaël*

2014 – 2018 École Normale Supérieure, Élève normalien

2017: Master of physics ICFP ENS - Soft Matter and biophysics

2015 : Bachelor of fundamental physics FIP ENS

2012 – 2014 Preparatory school, Lycée Thiers, Marseille

Publications

Articles

- 13. C. KOPECZ-MULLER, **V. BERTIN**, ET. AL., *Mechanical response of a thick poroelastic gel in contactless colloidal-probe rheology.* Proceedings of the Royal Society A **479** (2271), 20220832 (2023) 12. A. VILQUIN, **V. BERTIN**, ET. AL., *Nanoparticle Taylor dispersion near charged surfaces with an open boundary.* Physical Review Letters, **130** (3), 038201 (2023)
- 11. **V. Bertin**, Et. Al., *Enhanced Dip-Coating on a Soft Substrate.* Physical Review Fluids, **7**(10) L102002 (2022)
- 10. Z. ZHANG, M. ARSHAD, V. BERTIN, ET. AL., Broadband contactless rheology of viscoelastic elastomers. Phys. Rev. Applied 17, 064045 (2022)
- 9. **V. BERTIN**, ET. AL., Soft-lubrication interactions between a rigid sphere and an elastic wall. Journal of Fluid Mechanics **911**, A13 (2021)
- 8. C. DE BLOIS, **V. BERTIN**, ET. AL., *Swimming droplet in 1D geometries, an active Bretherton problem.* Soft Matter **17**, 6646-6660 (2021)
- 7. **V. BERTIN**, Z.ZHANG ET. AL., *Non-contact rheology of finite-size air-water interfaces.* Physical Review Research (Letter) **3**, L032007 (2021)
- 6. A. VILQUIN, **V. BERTIN**, P. SOULARD ET. AL., *Time dependence of advection-diffusion coupling for nanoparticle ensembles.* Physical Review Fluids **6**, 064201 (2021)
- 5. **V. BERTIN**, C. LEE ET. AL., *Capillary Levelling of a Liquid Stepped Film Supported on an Immiscible Liquid Film*. Journal of Fluid Mechanics **911**, A13 (2021)
- 4. **V. BERTIN** ET AL., Symmetrization of Thin Free-Standing Liquid Films via Capillary-Driven Flow, Physical Review Letters **124**, 184502 (2020)
- 3. Z. ZHENG, **V. BERTIN** ET. AL., *Direct measurement of the elastohydrodynamic lift force at the nanoscale*, Physical Review Letters **124**, 054502 (2020)
- 2. J.M. Aurnou, **V. Bertin** et. al., *Rotating thermal convection in liquid gallium: multi-modal flow, absent steady columns*, Journal of Fluid Mechanics **846**, 846-876 (2018)
- 1. M. RIVETTI, **V. Bertin** Et. Al., *Elastocapillary Levelling of Thin Viscous Films on Soft Substrates*, Physical Review Fluids **2**, 094001 (2017)

Conferences

National - GDR Liquids at Interfaces (Grenoble 2017, Bordeaux 2018, Grenoble 2019, Grenoble 2021), Journée de la Physique Statistique (2019, 2020), Voyage Gulliver (Lyon 2017, Amsterdam 2019, Bordeaux 2021), Theory Days LOMA (Bordeaux 2021 & 2022), Max Planck Center Meeting (Twente 2022). SPP Wetting (Gottingen 2022)

Internationnal - APS March Meeting 2018 Los Angeles, ICTAM 2020+1 Milan (online), APS March Meeting 2021 (online), Euromech EFMC14 Athens (2022).

Summer school - LAI Cargèse 2019, Complex Motion in Fluids 2022 (Twente), CISM 2023 (Udine) **Seminar** - Gulliver ESPCI Paris 2020, Physics of Fluids, IUSTI Marseille 2022, Soft Matter Group Amsterdam 2023

Skills

Languages Français (Mother tongue), English (fluent), Español (basics)

Computer Python, Mathematica, LATEX, ...

Social Student representative at Gulliver (~ 50 pers.) 2018-2020

Organizer of student seminar ($\sim 2/\text{mois}$)

Outreach Fête de la science 2018 - 2019 - 2020

Climate Collage - Organizer of workshops on Climate Change.

Awards

2020 Jean Langlois foundation prize

2022 PhD prize Science et Technologie of the University of Bordeaux

Teaching

2017 - 2018 **Physics tutorials (colle)**, Lycée Condorcet Paris, MPSI (2h/weeks)

2018 - 2021 **Applied mathematics**, *ESPCI Paris*, L3/M1, ~45h/year

2018 - 2020 **Supervision of experimental projects**, *Ecole Normale Supérieure*, L3 Physique FIP, 32h/year