

RAUFASTE Christophe
Maître de conférences HDR (Assoc. Prof.)
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Born on September 20th, 1980 in Hayange
French, 1 child
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EDUCATION

2017: “Habilitation à diriger les recherches”, Université Côte d’Azur.

“Dynamique d’objets capillaires et écoulement aux interfaces libres”.

committee: I. Cantat, C. Clanet, N. Vandewalle, F. Graner, M. Argentina, E. Villermaux

2004-2007: PhD supervised by F. Graner, Université Grenoble I.

“Rhéologie et imagerie des écoulements 2D de mousse : approche expérimentale, numérique et théorique”.

PhD prize in 2008 awarded by the French Rheology Society

2003/2004: Master’s degree in physics of liquids, Paris

2002/2003: “Agrégation de physique”

2000-2004: Student at ENS Lyon, physics department

PROFESSIONAL EXPERIENCE

since 2009: Associate Professor, Université Nice Sophia Antipolis, section CNU 28.

2020: junior member of the Institut Universitaire de France

2018: sabbatical, 8 months, DAMTP, Cambridge, group of Pr. Ray Goldstein

2016-2020 : PEDS (bonus for doctoral supervision)

2012-2016 : PES (bonus for scientific excellence)

CNRS sabbatical, 6 months in 2014/2015 and 2015/2016

2007-2009: postdoc, group “Physics of Geological Processes”, Univ. Oslo

2004-2007: PhD and teaching assistant, Université Grenoble I

SUPERVISION

Postdocs: Florence Haudin (2010-2011), Florence Gibouin (2016-2017), Fu Li (2020-2022)

PhD students: Geoffroy Kirstetter (2010-2014), Alexandre Cohen (2011-2015), Christophe d’Angelo (2018-), Jesus Sanchez (2018-), Guillaume Giombini (2019-), Florian Schott (2020-, Lunds Univ.)

Master students: Mathieu Pellegrin (M2, 2011), Damien Scandola (M1, 2013), Marine Borocco (M2, 2014), Alexandre Barzyk (M1, 2014), Abidi Bilel (M1, 2016), Christophe d’Angelo (M1, 2017), Christophe d’Angelo (M2, 2018), Guillaume Giombini (M2, 2019), William Bontemps (M1, 2019), Lisa Sicard (M2, 2020), Simeon Djambov (M1, 2020), Leo Guschemann (M1, 2020), David Paulovics (M2, 2021)

TEAM MANAGEMENT

since 2020: team leader of the “Complex Fluids” group

since 2017: principal investigator (with F. Celestini) of the superpropulsion research program. 2 senior researchers and 1 theoretical physicist from the Niels Bohr Institute involved, 2 PhDs funded since 2018, 3 articles published and 2 submitted

since 2011: principal investigator of the liquid foam program. 5 senior researchers involved, 2 PhDs defended, 12 articles published, 1 keynote and 1 invited presentation in international conference

PROJECTS FUNDED AS PRINCIPAL INVESTIGATOR

2020-2024: “Stability of foam films: marginal regeneration and drainage (DrainFilm)” funded by the ANR, two partners (LPS Orsay and IPR Rennes), 411k€

2019-2022: “Use of the superpropulsion effect to optimize ballistic throws”. 1 PhD funded by the Directorate General of Armaments, 117k€

2018-2020: “Fast infrared imaging for thermohydrodynamics”. 95k€ obtained from several sources (CNRS/UNS/Doeblin/RégionPACA) to get an infrared high-speed camera

2010-2016: 3 projects about X-ray tomography experiments on foam flow. French-Swiss collaboration, 5 members of 4 institutes

“Resolving three dimensional foam flow”, 2015-2016, 49k€ in beam time

“Structural rearrangements and flow in 3D liquid foams”, 2011-2013, 59k€ in beam time

“Dynamics of gas injection inside 3D liquid foams”, 2010-2011, 49k€ in beam time

PARTNER OF FUNDED PROJECTS

2020-2025: “Multi-scale analysis of structural rearrangements in a flowing liquid foam using X-ray tomographic microscopy”, PI R. Mokso (MaxIV, Lund University). 355 k€ from the Swedish Research Council (SRC). X-ray tomography experiments and analysis on foam flow. French-Swedish collaboration, 6 partners.

2020-2023: “Model-based and deep learning methods for robotic control”, PI G. Allibert. 190k€ (UCA IDEX). Transdisciplinary project between the physics and informatics institutes of Nice.

2016-2018: “Swimming Underwater roBOT”, PI M. Argentina. 77k€ (UCA IDEX), 6 members from 4 institutes.

2010-2013: “Cavitation and bubble dynamics”, PI X. Noblin. 223k€ (ANR), 4 members.

MOBILITY AND VISITS FOR COLLABORATION

2019: Lavrentyev Institute of Hydrodynamics, Russia, collaboration E. Ermanyuk (2 weeks)

2018: DAMTP, University of Cambridge, sabbatical, group of Pr. R. Goldstein (8 months)

2018: Aberystwyth University, UK, collaboration S. J. Cox (2 weeks)

2012-2016: Niels Bohr Institute, collaboration J. Mathiesen (2x 1 week)

2011-2019: ENS Lyon, collaboration S. Santucci (4x 1 week)

2011-2016: IPR Rennes, collaboration B. Dollet (3x1 week)

Sep. 2011: PSI Villigen, Switzerland, collaboration R. Mokso (2 weeks)

2008-2009: University of Oslo, Norway, postdoc (2 years)

Jun. 2007: Aberystwyth University, UK, collaboration S. J. Cox (2 weeks)

Mar. 2005: Los Alamos National Laboratory, US, collaboration Yi Jiang (1 month)

PHD COMMITTEES (12 committees, 7 as reviewer)

2020 (reviewer) Manon Marchand, LPS Orsay

2020 (reviewer) Lucile Favreau, ENS Lyon

2019 (reviewer) Miguet Jonas, Université Paris-Sud

2019 (reviewer) Raimbaud Quentin, Université de Rennes

2019 (examiner) Koleski Goce, Université de Bordeaux

2019 (examiner) Gross David, Université Côte d’Azur

2018 (reviewer) Keiser Armelle, PSL - ESPCI

2018 (reviewer) Ehlinger Quentin, Université de Lyon - ILM

2015 (supervisor) Alexandre Cohen, Université de Nice

2014 (examiner) Sébastien Kosgodagan Acharige, Université Paris Diderot

2014 (supervisor) Geoffroy Kirstetter, Université de Nice

2013 (reviewer) Kevin Mader, ETH Zürich

ORGANIZATION OF CONFERENCES

Waves Côte d'Azur, 4-7 June 2019, Nice

<http://wavescotedazur.org/>

Member of the organization and scientific committees

workshop "Mousses, films et effets Marangoni", 27-29 March 2019, Rennes

<https://ipr.univ-rennes1.fr/agenda/workshop-mousses-films-et-effets-marangoni>

Member of the scientific committee

LECTURES, COMMUNICATIONS, ABSTRACTS, SEMINARS

1 lecture in a summer school

1 keynote and 1 invited presentation at international conferences

14 selected oral presentations at international conferences

10 selected oral presentations at national conferences

62 abstracts at national (22) and international (40) conferences

16 invited seminars in institutes (9 in France and 7 abroad)

PUBLICATIONS

Orcid ID : 0000-0003-4328-7438

ResearcherID : R-2217-2017

36 articles published, 18 in 2015-2020