



Davi Lazzari

PHD IN PHYSICS

Profile

Resourceful and dedicated worker with excellent analytical and computational skills. Able to effectively self-manage during independent projects, as well as collaborate as part of a productive team.

Positions and Titles

Postdoc, DIMA, Sapienza, Roma, IT

Title: "Applicazioni nanofluidiche di sistemi nanoporosi e nanostrutturati."
Advisor: Alberto Giacomello.
2024 -

PhD in Statistical Physics (2025), UFRGS, Porto Alegre, BR

Internship at Gulliver Lab (6 months, 2023), ESPCI-PSL, Paris, FR

Title: "Active Elastic Solids."
Advisor: Carolina Brito (UFRGS-BR).
Co-Advisor: Olivier Dauchot (ESPCI-FR).
2020 - 2024

Bachelor in Physics (2018), UFRGS, Porto Alegre, BR

Title: "Wetting properties in Surfaces with Spatial and Chemical Disorder."
Advisor: Carolina Brito.
2013 - 2018

Publications

2019 - *Geometric and chemical nonuniformity may induce the stability of more than one wetting state in the same hydrophobic surface.*
Davi Lazzari & Carolina Brito.
Physical Review E 99 (3), 032801.

2023 - *Hierarchical structured surfaces enhance the contact angle of the hydrophobic (meta-stable) state.*
Iara Patrícia da Silva Ramos, Cristina Gavazzoni, Davi Lazzari & Carolina Brito.
The Journal of Chemical Physics 158 (15)

2024 - *Tuning collective actuation of active solids by optimizing activity localization.*
Davi Lazzari, Olivier Dauchot & Carolina Brito.
Soft Matter 20 (43), 8570-8580

2025 - *Optimizing oil-water separation using fractal surfaces.*
Cristina Gavazzoni, Davi Lazzari, Iara Patrícia da Silva Ramos & Carolina Brito.
The Journal of Chemical Physics 162 (4)

Participation in Events

2025 - International Conference of Soft Matter, Crete, Greece.
Oral presentation: *Molecular Origin of Slippery Behavior in Tethered Liquid Layers.*

2025 - The 29th International Conference on Statistical Physics, Florence, Italy.
Poster presentation: *Molecular Origin of Slippery Behavior in Tethered Liquid Layers.*

2024 - School of Active Matter, ICTP-SAIFR.

2022 - School and Conference Physics of Active Matter, Millennium Nucleus, Universidad de Chile.

2022 - School on Disordered Elastic Systems, ICTP-SAIFR.

2021 - XI Workshop in Complexity of Water, Other Liquids and Education, UFPel and UFRGS,
Oral presentation: *Effect of disorder in wetting characteristics of super hydrophobic surfaces.*

2017 - XI Workshop: Out of Equilibrium Dynamics in Soft and Condensed Matter, UFRN.
Poster presentation: *Phase metastability of hydrophobic surfaces with spatial disorder.*