Paolo Olivucci

Contacts: ✉ p.olivucci@tu-braunschweig.de +4915259652812 +447450625825

Personal: Passport: Italy Residence: Germany Work visa: EU, UK

Education

2016-2021	**PhD, Fluid Mechanics**	University of Sheffield, UK
2013-2016	**MSc, Naval Architecture**, 1st	University of Genoa, Italy
2015	Exchange student, Naval Architecture	TU Hamburg, Germany
2010-2013	**BSc, Naval Architecture and Marine Engineering**, 2:1	University of Genoa, Italy

Research Experience

Doctorate [dissertation]:

- Active and passive flow control methods for frictional drag reduction based on wall-mounted rotating discs.
- Coupled fluid-body dynamics of solid discs in a moderately turbulent channel flow via fully resolved simulations.
- Efficient optimization of turbulent flow control through Bayesian response models.

Postdoctoral:

- Efficient prediction of costly aerodynamical data via multi-fidelity probabilistic models.
- Reduced-order dynamical predictions at unseen conditions via cluster-based Markov models (ongoing).
- Summarisation of large experimental databases on gust-wing loads through data-driven models (ongoing).
- Mapping the biomechanical fitness landscape of swimming modes through differentiable computing (ongoing).

Publications: **P. Olivucci** and S. Gaggero. In *ECCOMAS Congress 2016*, (2016)
D. J. Wise, **P. Olivucci**, and P. Ricco. *J. Fluid Mech.*, 856:1064–1066, (2018)
P. Olivucci, P. Ricco, and S. K. Aghdam. *Phys. Rev. Fluids*, 4(9):093904, (2019)
P. Olivucci, D. J. Wise, and P. Ricco. *J. Fluid Mech.*, 923, (2021)
M. Corelli, **P. Olivucci**, and C. Badryia. In *AIAA Scitech*, (2023)
P. Olivucci, X. Shao, M. Albers, R. Semaan, and W. Schröder. *Comp. Fluids*, (2025)
P. Olivucci and D. Rival. (submitted to journal). (2025)
P. Olivucci and R. Semaan. (in preparation). (2026)
P. Olivucci and D. Rival. (in preparation). (2026)

Res. grants: jointly granted about 2,000,000 core-hours, EPCC supercomputer facility (UK 2017-2020);
joint DFG proposal submission (Germany 2025 – under review);

Additional work experience

2017-2019	**Teaching assistant, "Heat transfer" and "Aerodynamics"**	University of Sheffield, UK
2022 - present	**Postdoctoral researcher**	TU Braunschweig, Germany
2025	**Lecturer, "Smart sensing in fluid dynamics"** [syllabus]	TU Braunschweig, Germany