

Rui Aleixo, PhD

Rui Aleixo finished his PhD in 2013 on the study of dam-break flow by means of non-intrusive techniques. He did a Post-Doc in the National Center for Computational Hydroscience of the University of Mississippi, USA and was a researcher at the University of Bologna from 2017 to 2019. He was the chair of the Experimental Methods and Instrumentation committee of the IAHR from 2015 to 2017 where he co-organized the W.A.T.E.R. Summer School. His main body of research is on experimental methods and experimental hydraulics and fluid mechanics. He is currently assistant professor at the Institute of Hydroengineering - Polish Academy of Sciences, in Gdansk, Poland.

Work Experience (Last 5 years)

2023-Present: Assistant Professor. Institute of Hydro-Engineering - Polish Academy of Sciences, Gdansk, Poland.

2022-2023: Researcher. National Laboratory for Civil Engineering LNEC. Lisbon. Portugal

2020-2022: Researcher. CERIS: Civil Engineering Research for Innovation and Sustainability. Instituto Superior Técnico. University of Lisbon. Portugal.

2020-2022: Visiting scholar. Vrije Universiteit Brussel. Belgium.

Relevant Publications on experimental techniques

M. Guerrero, **R. Aleixo**, L. Schippa (2025). Scaling turbulent wake flow downstream of isolated piers in laboratory and river. Results in Engineering, Volume 27, September 2025, 106932. DOI: 10.1016/j.rineng.2025.106932.

R. Jónatas, **R. Aleixo**, Amaral, S., Mendes, S., Viseu, M.T. and Ferreira R., (2025). Laboratory application of real-time LiDAR technology for assessing the breach morphology during the failure of earth dams and fluvial dikes. DOI: 10.1061/JHEND8/HYENG-14126

Y. Fuchs, **R. Aleixo**, L. Strohschneider, S. Scherbaum, M. Chen, N. Rüther, and A. Hartlieb (2025), Comprehensive river cleaning: PTV analysis of a novel plastic debris removal concept in a large-scale physical model, Water Research, 124172, ISSN 0043-1354, DOI: 10.1016/j.watres.2025.124172.

S. Mendes, S. Amaral, T. Alvarez, **R. Aleixo**, A. Muralha, T. Viseu and R. Ferreira (2023). Image Analysis Techniques to Characterize Scaled Embankment Failures. In: Chastre, C., et al. Testing and Experimentation in Civil Engineering. TESTCE 2022. RILEM Bookseries, vol 41. Springer, Cham. https://doi.org/10.1007/978-3-031-29191-3_35

F. Molteni Perez, **R. Aleixo**, A. Gubler, P. Winckler and M. Reyes. Tracking the transport of pollutants by means of imaging methods. Acta Geophys. (2022). DOI: 10.1007/s11600-022-00897-2