









Workshop APPROXIMATING THE RESPONSE OF COMPLEX HYDROLOGICAL SYSTEMS: FROM THEORY TO REAL-WORLD APPLICATIONS

3 giugno 2025 Sala conferenze Orio Zanetto, Campus Scientifico via Torino Via Torino 155 - Venezia Mestre

10.00 - 10.40 **Adam Siade**: *Reduced-dimensional gaussian process machine learning for groundwater allocation planning using swarm theory*

10.45 - 11.25 **Reygie Macasieb**: *A probabilistic approach to surrogate-assisted multi-objective optimization of complex groundwater problems* 14.45 - 15.25 **Antonia Larese, Damiano Pasetto**: *RBF-based Surrogates of a high-fidelity simulation model of a debris flow*

Organizers Damiano Pasetto, Gabriele Santin, Antonia Larese

11.40 -12.20 Federico Piazzon: Surrogate modelling and

sensitivity analysis of Kelvin-Voigt viscoelastic flow by polynomial approximation

14.00 - 14.40 **Boumediene Hamzi**: *Bridging machine learning, dynamical systems, and algorithmic information theory: Insights from sparse kernel flows, Poincaré normal forms and PDE simplification*



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