Paper Validation Report
for DS2025_diff

Correspondence: No
Percentages: 5.0%

Conclusion:

The paper focuses on dissolved-oxygen prediction for the Sitnica River using features (T, EC, pH) and ML models (e.g., LightGBM with GA-based hyper-parameter tuning). The repository code, however, is entirely devoted to PDE discovery, numerical differentiation benchmarking, and neural-network gradient learning for equations such as Burgers, KdV, Laplace, Wave, etc. It contains no scripts for loading or cleaning the Sitnica water-quality dataset, no LightGBM implementation, no GA optimisation, and no evaluation metrics or figures related to DO prediction. Consequently, the experimental setup, data, algorithms, and reported results of the paper cannot be reproduced from the supplied code.