

# Youssef Saliba

Full List of Publications

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This list consolidates the publications and scientific conference contributions currently associated with the doctoral work, grouped by their relationship to the thesis and publication status.

## Publications Directly Related to the Thesis

### Web of Science Indexed Journal Articles

1. **Saliba, Y.**; Bărbulescu, A. "A Multi-Method Approach to Analyzing Precipitation Series and Their Change Points in Semi-Arid Climates: The Case of Dobrogea." *Water* **2025**, *17*, 391. <https://doi.org/10.3390/w17030391>
2. **Saliba, Y.**; Bărbulescu, A. "Genetic-algorithm based changepoints detection and homogenization of precipitation series." *Stochastic Environmental Research and Risk Assessment* **2026**, *40*, 8. <https://doi.org/10.1007/s00477-025-03142-6>
3. **Saliba, Y.**; Bărbulescu, A. "Copula-based assessment of compound warm-dry climate risk: a 55-year analysis of dependence structure stability in Tulcea, Romania." *Stochastic Environmental Research and Risk Assessment* **2026**, *40*, 59. <https://doi.org/10.1007/s00477-026-03180-8>
4. **Saliba, Y.**; Bărbulescu, A. "Homogenization of Monthly Precipitation Series: A Case Study from Romania." *Romanian Journal of Physics* **2026**, *71*, 801. <https://doi.org/10.59277/RomJPhys.2026.71.801>
5. **Saliba, Y.**; Bărbulescu, A. "Detecting Undocumented Shifts in Seasonal Precipitation: An MDL-Driven Periodic Autoregressive Segmenter with Fourier Compression and Genetic Search.." *Water Resour Manage* **2026**, *40*, 344. <https://doi.org/10.1007/s11269-026-04734-9>
6. **Saliba, Y.**; Bărbulescu, A. "Beyond Correlation: Quantifying Compound Hydro-Climatic Shocks with Copulas." *Environ Ecol Stat* **2026**. <https://doi.org/10.1007/s10651-026-00736-3>

### Related Scientific Publications

1. **Saliba, Y.**; Bărbulescu, A. "Downscaling MERRA-2 Reanalysis PM<sub>2.5</sub> Series over the Arabian Gulf by Inverse Distance Weighting, Bicubic Spline Smoothing, and Spatio-Temporal Kriging." *Toxics* **2024**, *12*, 177. <https://doi.org/10.3390/toxics12030177>
2. Bărbulescu, A.; **Saliba, Y.** "Sensitivity Analysis of the Inverse Distance Weighting and Bicubic Spline Smoothing Models for MERRA-2 Reanalysis PM<sub>2.5</sub> Series in the Persian Gulf Region." *Atmosphere* **2024**, *15*, 748. <https://doi.org/10.3390/atmos15070748>
3. **Saliba, Y.**; Bărbulescu, A. "A Comparative Evaluation of Spatial Interpolation Techniques for Maximum Temperature Series in the Montreal Region, Canada." *Romanian Reports in Physics* **2024**, *76*, 701. <https://doi.org/10.59277/RomF>
4. **Saliba, Y.**; Bărbulescu, A. "Assessing Pollution with Heavy Metals and Its Impact on Population Health." *Toxics* **2025**, *13*, 52. <https://doi.org/10.3390/toxics13010052>

### Conference Paper Indexed in Scopus

1. **Saliba, Y.**; Bărbulescu, A.; Dumitriu, C. Ștefan. "A critical approach to clustering precipitation series in the Dobrogea region, Romania." *E3S Web of Conferences* **2025**, *608*, 05027. <https://doi.org/10.1051/e3sconf/202560805027>

### Conference Presentations

1. **Saliba, Y.**; Bărbulescu, A.; Dumitriu, C. Ștefan. "A critical approach to clustering precipitation series in the Dobrogea region, Romania." *Presented at the EU-CONEXUS EENVIRO Research Conference 2024, Bucharest, Romania. 29–31 October 2024*
2. **Saliba, Y.**; Bărbulescu, A. "Identifying Change Points in Seasonal Hydrological Data using a Genetic Algorithm Approach." *Presented at MadeAI 2025 – Modelling, Data Analytics and AI in Engineering, Porto, Portugal. 7–9 July 2025*

3. **Saliba, Y.**; Bărbulescu, A. "A copula approach for analyzing the hydro-meteorological shocks." *Presented at CIBv2025 International Scientific Conference: Civil Engineering and Building Services, Braşov, Romania. 6–7 November 2025*
4. **Saliba, Y.**; Bărbulescu, A. "Does a copula quantify compound temperature–precipitation risk in Tulcea, Romania?." *Presented at the 8th Edition of the Doctoral School Conference (DSC 2025), Technical University of Civil Engineering Bucharest, Bucharest, Romania. 13 November 2025*
5. **Saliba, Y.**; Bărbulescu, A.; Dumitriu, C. Ştefan. "Detected Latent Seasonal Precipitation Patterns with Genetic Search and Fourier Compression." *Presented at the 6th World Conference on Climate Change and Global Warming (CCGCONF 2025), Copenhagen, Denmark. November 2025*
6. Bărbulescu, A.; **Saliba, Y.** "Assessing the precipitation series variability at the regional scale in the Dobrogea region based on a long data series set." *Accepted for presentation at the Hydroinformatics Conference (HIC 2026), Zaragoza, Spain. 22–26 June 2026*

Signature



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Coordinatori doctorat

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