

h 15:00-18:30, April 14, 2024, Sala Consiliare DII



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SWAT (Soil and Water Assessment Tool) and its connection to the AI4Water project

Abstract: In this talk, we will review SWAT, a watershed-scale hydrological model used to simulate the quantity and quality of surface and groundwater, among many other functionalities. After analyzing SWAT's inputs, outputs, and typical applications, we will explore its potential role within the AI4Water project.

Additionally, we will briefly examine the possibility of integrating SWAT with our optimization model using the pySWATPlus tool. We will outline the required pipeline to provide the necessary inputs to the model and run a simulation to obtain the standard outputs produced by a SWAT simulation.

Short Bio: Eva is a Professor of Computer Science at Universitat Politècnica de Valencia (UPV) in Spain. She has worked in several subfields of AI, particularly on the areas of Knowledge Representation and Reasoning, Automated Planning and Multi-Agent Systems. Currently, her main focus is on the integration of Planning and Learning and the development of personalized decision-making techniques that account for human values and user preferences. She was Editor-in-Chief of the journal AICommunications, the European journal on AI, and served as program co-chair of the conference ICAPS 2019, the International Conference on Automated Planning and Scheduling.