

Marie Skłodowska Curie Action –Postdoctoral Fellowship 2024
(MSCA-PF-2024)

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Department /Institute /Centre	Name	Research Centre for the Management of Agricultural and Environmental Risks (CEIGRAM) Department of Agroforest Engineering
	Address	C/ Senda del Rey (28040, Madrid)
	Province	Madrid
Research Area		Environment and Geoscience (ENV)
Brief description of the Centre/Research Group		The Research Centre for the Management of Agricultural and Environmental Risks (CEIGRAM) is a Joint Research Centre of the Universidad Politécnica de Madrid (UPM), which was founded in 2007. It was established thanks to the collaboration agreement signed between the Spanish National Agency for Agriculture Insurance (ENESA, an Independent Body of the Ministry of Agriculture, Fisheries and Food), AGROMUTUA-MAVDA and the UPM. CEIGRAM is a reference and knowledge generation centre for conducting research and developing methodologies that respond to the growing concern about the production, market, and environmental risk management strategies that the agricultural sector is facing. CEIGRAM is part of the UPM School of Agricultural, Food, and Biosystems Engineering due to its missions, study areas, and staff.
Project description		Analysing the spatio-temporal variability of events-based hydrological processes at catchment scale with particular focus on merging physically-based and data driven approaches. We ambition not only to improve the understanding of underlying hydrological processes but also to come up with optimal monitoring strategies for hydrological processes at catchment scale. Our research combines programming physical and machine learning algorithms operating sensors network (self-developed soil moisture, ultrasonic water level gauges and rain gauges) and some field and laboratory works for determining soil physical properties. We also fly drones for gathering thermal and multi-spectral images. We have some cases studies spanning from a set of 60 small catchments across the Ebro river basin and three dense monitored small catchments in Madrid
Applications: documents to be submitted and deadlines		CV and letter of preferences Deadline: 30/04/2024