

2025

AUTHORS	TITLE	DOI	SOURCE TITLE
Aparicio-Ibáñez, J., Pimentel, R., Bonet-García, F.J., Polo, M.J.	Using NDVI-derived vegetation vigour as a proxy for soil water content in Mediterranean-mountain traditional water management systems: Seasonal variability and restoration impacts	https://doi.org/10.1016/j.ecolind.2025.113468	Ecological Indicators
Kreibich, H., Sivapalan, M., AghaKouchak, A., and Blöschl, G.	Panta Rhei: a decade of progress in research on change in hydrology and society	https://doi.org/10.1080/02626667.2025.2469762	Hydrological Sciences Journal
Scheidt, K.T., Pimentel, R., Premier, V., Marin, C., Polo, M.J., Notarnicola, C.	Assessing the impact of terrestrial photography-derived roughness lengths on evaporesublimation from seasonal snow in the Mediterranean mountains of Sierra Nevada (Spain)	https://doi.org/10.1016/j.ejrh.2025.102431	Journal of Hydrology: Regional Studies
Pechlivanidis, I.G., Du, Y., Bennett, J., and Werner, M.	Enhancing Research-to-Operations in Hydrological Forecasting: Innovations across Scales and Horizons	https://doi.org/10.1175/BAMS-D-24-0322.1	Bulletin of the American Meteorological Society

2024

AUTHORS	TITLE	DOI	SOURCE TITLE
Crochemore, L., Materia, S., Delpiazzo, E., and Mysiak, J.	A Framework for Joint Verification and Evaluation of Seasonal Climate Services across Socioeconomic Sectors	https://doi.org/10.1175/BAMS-D-23-0026.1	Bulletin of the American Meteorological Society
Contreras, E., Jurado-Ezqueta, M., Pimentel, R., Serrano, L., Hidalgo, C., Jiménez, A., Polo, M.J.	Assessment of seasonal and annual patterns in phosphorus content in a monitored catchment through a partitioning approach based on hydrometeorological data	https://doi.org/10.1016/j.envres.2023.117501	Environmental Research
Gómez-Beas, R., Contreras, E., Polo, M.J., Aguilar, C.	Stochastic Flow Analysis for Optimization of the Operability in Run-of-River Hydroelectric Plants in Mountain Areas	https://doi.org/10.3390/en17071705	Energies

Arheimer, B., Cudennec, C., Castellarin, A., and Xia, J.	The IAHS Science for Solutions decade, with Hydrology Engaging Local People IN one Global world (HELPING)	https://doi.org/10.1080/02626667.2024.2355202	Hydrological Sciences Journal
Pimentel, R., Torralbo, P., Polo, M.J., Notarnicola, C.	Combining Terrestrial Photography and Sentinel-1 Imagery for Assessing Wet Snow Dynamics in Ephemeral Snowpack over Semiarid Mountain Areas	https://doi.org/10.1109/IGARSS53475.2024.10641534	International Geoscience and Remote Sensing Symposium (IGARSS)
Contreras, E., Pimentel, R., Aguilar, C., Aparicio, J., Polo, M.J.	Quantifying irrigation returns into a highly human managed wetland using remote sensing: The Primera de Palos freshwater lagoon (Spain)	https://doi.org/10.5194/piahs-385-297-2024	Proceedings of the International Association of Hydrological Sciences
Ma, Y., He, T., Aguilar, C., Pimentel, R., Liang, S., McVicar, T.R., Hao, D., Xiao, X., Liu, X.	Evaluating Topographic Effects on Kilometer-Scale Satellite Downward Shortwave Radiation Products: A Case Study in Mid-Latitude Mountains	https://doi.org/10.1109/TGRS.2024.3365865	IEEE Transactions on Geoscience and Remote Sensing
Muñoz-Gómez, M.J., Andreu, A., Carbonero, M.D., Blázquez- Carrasco, Á., González-Dugo, M.P.	Impact of water stress on Mediterranean oak savanna grasslands productivity: Implications for on- farm grazing management	https://doi.org/10.1016/j.agwat.2024.109025	Agricultural Water Management
Andreu, A., Carpintero, E., Muñoz-Gomez, M.J., Blázquez- Carrasco, Á., González-Dugo, M.P.	Influence of data spatial resolution in water resources management for oak- savanna distinctive vegetation patches	https://doi.org/10.5194/piahs-385-339-2024	Proceedings of the International Association of Hydrological Sciences

2023

AUTHORS	TITLE	DOI	SOURCE TITLE
Peñas, F.J., Álvarez-Cabria, M., Sáinz- Bariáin, M., and Barquín, J.	An evaluation of freshwater monitoring programs in ILTER nodes and mountain national parks: identifying key variables to monitor global change effects	https://doi.org/10.1007/s10531-022-02466-x	Biodiversity and Conservation
Torralbo, P., Pimentel, R., Polo, M.J., Notarnicola, C.	Characterizing Snow Dynamics in Semi-Arid Mountain Regions with Multitemporal Sentinel- 1 Imagery: A Case Study in the Sierra Nevada, Spain	https://doi.org/10.3390/rs15225365	Remote Sensing
Notarnicola, C., Callegari, M., Castelli, M., and Zebisch, M.	Earth Observation tools to monitor and protect mountain environment: current challenges and future perspectives	https://doi.org/10.1016/B978-0-12-822095-5.00014-0	Safeguarding Mountain Social- Ecological Systems: A Global Challenge: Facing Emerging Risks, Adapting to Changing Environments
Contreras, E., Aguilar, C., Polo, M.J.	Accounting for the annual variability when assessing non-point source pollution potential in Mediterranean regulated watersheds	https://doi.org/10.1016/j.scitotenv.2023.167261	Science of the Total Environment
Pimentel, R., Crochemore, L., Andersson, J.C.M., Arheimer, B.	Assessing robustness in global hydrological predictions by comparing modelling and Earth observations	https://doi.org/10.1080/02626667.2023.2267544	Hydrological Sciences Journal
Pimentel, R., Arheimer, B., Crochemore, L., Andersson, J.C.M., Pechlivanidis, I.G., Gustafsson, D.	Which Potential Evapotranspiration Formula to Use in Hydrological Modeling World-Wide?	https://doi.org/10.1029/2022WR033447	Water Resources Research

2022

AUTHORS	TITLE	DOI	SOURCE TITLE
Nardi, F., Cudennec, C., Abrate, T., and Grimaldi, S.	Citizens AND Hydrology (CANDHY): conceptualizing a transdisciplinary framework for citizen science addressing hydrological challenges	10.1080/02626667.2020.1849707	Hydrological Sciences Journal
Sebok, E., Henriksen, H.J., Pastén-Zapata, E., and Refsgaard, J.C.	Use of expert elicitation to assign weights to climate and hydrological models in climate impact studies	https://doi.org/10.5194/hess-26-5605-2022	Hydrology and Earth System Sciences
Polo, M.J., Herrero, J., Millares, A., Pimentel, R., Moñino, A., Pérez-Palazón, M.-J., Aguilar, C., Losada, M.A.	Snow Dynamics, Hydrology, and Erosion	https://doi.org/10.1007/978-3-030-94219-9_10	The Landscape of the Sierra Nevada: A Unique Laboratory of Global Processes in Spain
Pimentel, R., Photiadou, C., Little, L., Huber, A., Lemoine, A., Leidinger, D., Lira-Loarca, A., Lüickenkötter, J., Pasten-Zapata, E.	Improving the usability of climate services for the water sector: The AQUACLEW experience	https://doi.org/10.1016/j.cliser.2022.100329	Climate Services
Pastén-Zapata, E., Pimentel, R., Royer-Gaspard, P., Sonnenborg, T.O., Aparicio-Ibañez, J., Lemoine, A., Pérez-Palazón, M.J., Schneider, R., Photiadou, C., Thirel, G., Refsgaard, J.C.	The effect of weighting hydrological projections based on the robustness of hydrological models under a changing climate	https://doi.org/10.1016/j.ejrh.2022.101113	Journal of Hydrology: Regional Studies
Burchard-Levine, V., Nieto, H., Riaño, D., Kustas, W.P., Migliavacca, M., El-Madany, T.S., Nelson, J.A., Andreu, A., Carrara, A., Beringer, J., Baldocchi, D., Martín, M.P.	A remote sensing-based three-source energy balance model to improve global estimations of evapotranspiration in semi-arid tree-grass ecosystems	https://doi.org/10.1111/gcb.16002	Global Change Biology

Johnston, M.R., Andreu, A., Verfaillie, J., Baldocchi, D., Moorcroft, P.R.	What lies beneath: Vertical temperature heterogeneity in a Mediterranean woodland savanna	https://doi.org/10.1016/j.rse.2022.112950	Remote Sensing of Environment
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2021

AUTHORS	TITLE	DOI	SOURCE TITLE
Aguilar, C., Pimentel, R., Polo, M.J.	Two decades of distributed global radiation time series across a mountainous semiarid area (Sierra Nevada, Spain)	https://doi.org/10.5194/essd-13-1335-2021	Earth System Science Data
García-Rupérez, J., Portero, M.J.M., Piá, M.A.B., Tamarit, M.E.B., Genaro, L.A.T., Polo, M.J.B., Vidal, B., Kilders, P.S., Ribera, M.L.F., Tovar, R.S.	Peer-assessment using test exams in a Sakai-based e-learning platform	https://doi.org/10.1109/JICV53222.2021.9600291	Proceedings - 11th International Conference on Virtual Campus, JICV 2021
Su, Z., Ma, Y., Chen, X., and, Zeng, Y.	Monitoring water and energy cycles at climate scale in the third pole environment (Climate-tpe)	https://doi.org/10.3390/rs13183661	Remote Sensing
Pimentel, R., Arheimer, B.	Hydrological impacts of a wildfire in a Boreal region: The Västmanland fire 2014 (Sweden)	https://doi.org/10.1016/j.scitotenv.2020.143519	Science of the Total Environment

2020

AUTHORS	TITLE	DOI	SOURCE TITLE
Contreras, E., Herrero, J., Crochemore, L., Pechlivanidis, I., Photiadou, C., Aguilar, C., Polo, M.J.	Advances in the definition of needs and specifications for a climate service tool aimed at small hydropower plants' operation and management	https://doi.org/10.3390/en13071827	Energies

Gómez-Giráldez, P.J., Pérez-Palazón, M.J., Polo, M.J., González-Dugo, M.P.	Monitoring grass phenology and hydrological dynamics of an oak-grass savanna ecosystem using sentinel-2 and terrestrial photography	https://doi.org/10.3390/rs12040600	Remote Sensing
Contreras, E., Herrero, J., Crochemore, L., Aguilar, C., Polo, M.J.	Seasonal climate forecast skill assessment for the management of water resources in a run of river hydropower system in the Poqueira River (Southern Spain)	https://doi.org/10.3390/W12082119	Water (Switzerland)
Polo, M.J., Pimentel, R., Gascoin, S., Notarnicola, C.	Mountain hydrology in the Mediterranean region	https://doi.org/10.1016/B978-0-12-818086-0.00003-0	Water Resources in the Mediterranean Region
Crochemore, L., Isberg, K., Pimentel, R., Pineda, L., Hasan, A., Arheimer, B.	Lessons learnt from checking the quality of openly accessible river flow data worldwide	https://doi.org/10.1080/02626667.2019.1659509	Hydrological Sciences Journal
Arheimer, B., Pimentel, R., Isberg, K., Crochemore, L., Andersson, J.C.M., Hasan, A., Pineda, L.	Global catchment modelling using World-Wide HYPE (WWH), open data, and stepwise parameter estimation	https://doi.org/10.5194/hess-24-535-2020	Hydrology and Earth System Sciences

2019

AUTHORS	TITLE	DOI	SOURCE TITLE
Polo, M.J., Herrero, J., Pimentel, R., Pérez-Palazón, M.J.	The Guadalfeo Monitoring Network (Sierra Nevada, Spain): 14 years of measurements to understand the complexity of snow dynamics in semiarid regions	https://doi.org/10.5194/essd-11-393-2019	Earth System Science Data
Blöschl, G., Bierkens, M.F.P., Chambel, A., and Zhang, Y.	Twenty-three unsolved problems in hydrology (UPH)—a community perspective	https://doi.org/10.1080/02626667.2019.1620507	Hydrological Sciences Journal

Iliopoulou, T., Aguilar, C., Arheimer, B., Bermúdez, M., Bezak, N., Ficchi, A., Koutsoyiannis, D., Parajka, J., Polo, M.J., Thirel, G., Montanari, A.	A large sample analysis of European rivers on seasonal river flow correlation and its physical drivers	https://doi.org/10.5194/hess-23-73-2019	Hydrology and Earth System Sciences
Salamanca, A.J.A., Navarro-Cerrillo, R.M., Bonet-García, F.J., Pérez-Palazón, M.J., Polo, M.J.	Integration of a Landsat time-series of NBR and hydrological modeling to assess Pinus pinaster Aiton. forest defoliation in south-eastern Spain	https://doi.org/10.3390/rs11192291	Remote Sensing