

RSHS'18, Remote Sensing & Hydrology Symposium, ICRS-IAHS

Dates: May 8th - 10th, 2018

Location: Andalusian Institute for Earth System Research (IISTA), University of Cordoba, Spain

Topic

Earth Observation for Integrated Water and Basin Management: New possibilities and challenges for adaptation to a changing environment

Objective and themes

RSHS'18 is a meeting point for researchers from both the hydrology and remote sensing communities, and brings together their joint experience in Earth Observation for developing innovative and environmentally-sustainable water resources and basin management. The Symposium is organized by the International Commission on Remote Sensing of the IAHS and the Andalusian Institute for Earth System Research (IISTA) at the University of Cordoba with support from the Daugherty Water for Food Global Institute at the University of Nebraska. It is focused on the use of the new generation of remote sensors and applications to hydrology, water resources, agricultural water management and river basin management, and the challenges and opportunities of blending remote sensing images and data sources with multi-scale modelling and ground-based data.

Integrated river basin management involves a sound knowledge of water and land interactions, and impacts from and feedbacks to human activity. Remote sensing has been an efficient and increasingly promising means of gathering direct information of the Earth surface, as well as information on water and energy fluxes. The recent generation of space and aircraft based high-resolution sensors offer a huge potential for monitoring, assessing, and modelling our changing environment in a context of uncertainty about how future climate conditions will affect the current water resource and basin management framework. Moreover, large amounts of data are now available posing a challenging opportunity to the scientific community for both exploring and transforming these data into readily usable information products for different end-users in our societies.

The scientific decade 2013–2022 of IAHS, entitled “Panta Rhei – Everything Flows”, is dedicated to research activities on change in hydrology and society. Undoubtedly, remote sensing from different sources provides us with the information needed to monitor the changes in the environment at different spatial and temporal scales. Renewed efforts are needed to merge different data sources for



generating medium to long-term series that benefit from both earlier satellite missions and the recent availability of high quality data provided by the new satellites and airborne technologies.

Under the light of these objectives for RSHS'18, the ICRS committee welcomes innovative and integrated remote sensing research and applications within the four thematic areas of the Symposium that include but are not limited to the following topics:

Theme A, GIS and Remote Sensing includes Data mining and assimilation, GIS and Remote sensing technologies and products, Hydroinformatics, Software and tools.

Theme B, Hydrology includes Hydrological modelling, Flood management, Global hydrologic cycle, Urban hydrology, Eco-hydrology, Precipitation retrievals, Evapotranspiration and Energy Balance processes, water balance and accounting, agricultural water and irrigation management

Theme C, Water Resources includes Remote Sensing and Spatial applications to Water resources modeling, Integrated water resources management and planning, Reservoir management, Water resources management system, Dam development, Water transfer.

Theme D, Environment includes Water quality modeling, Pollutant fate and transport in reservoirs, rivers and lakes, Groundwater quantity and quality modelling, River and dam restoration, Ecosystem diversity and integrity.

Venue

The conference will take place at the historical building of the central facilities of the University of Córdoba (UCO), in the city of Cordoba in Southern Spain. The venue is located close to the historical city center. UCO conducts research and education through 10 faculties/schools with an academic staff made up of 1400 professors, where approximately 18000 students interact, distributed as 15000 undergraduates, 1400 MSc students, and 1500 PhD students; and 10% international students. UCO is the coordinator institution of a consortium of five Spanish universities specialized on Agrifood and its relationships with the environment (ceiA3 Agrifood Campus of International Excellence). The importance of water resources for both natural and agricultural systems in a Mediterranean region is crucial and a strategic emphasis for research and technical transfer activities at UCO.

The RSH Symposium of ICRS-IAHS will be hosted by the Andalusian Institute For Earth System Research at the University of Córdoba, an interuniversity research institute (Universities of Córdoba and Granada) focused on water, soil, vegetation, and atmospheric research oriented towards natural resources management and global change, made up of academics from the Forestry and Agriculture Engineering School and the Sciences Faculty at UCO.

http://www.uco.es/internacional/extranjeros/conocelauco/index_en.html
<https://www.youtube.com/watch?v=zKedqMeK2w4>

Cordoba is the third largest provincial capital city of Andalusia with just over 300,000 inhabitants. Located in the Guadalquivir River Valley, with a Mediterranean climate, the city is bordered to the north by the Sierra Morena mountain range and to the south by the Campiña, one of the most traditional farming areas of Andalusia.

Cordoba is a city immersed in History. Thanks to its cultural and monumental legacy, Cordoba was designated World Heritage City by the UNESCO in 1984 and was one of the leading candidates for the European Capital of Culture title in 2016. A crossroads of diverse cultures throughout the city's history, the splendor it achieved under the Romans and Visigoths grew with the arrival of the Moors at the beginning of the 8th century when Cordoba became the capital of Al-Andalus, and the largest and most developed city in the West. The Mosque, one of the most emblematic monuments of the city, was the greatest in the Western world under Moorish rule. Located on the banks of the Guadalquivir River, the Mosque also houses a Christian cathedral. The nearby Jewish Quarter stands out for its narrow, winding streets, shops and restaurants. May is a month with many traditional events and festivals in Cordoba.

<https://www.youtube.com/watch?v=qFjQTqqGlgc>
<https://www.youtube.com/watch?v=Us3hTNxtQ18>

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