

Summary Report — HIC 2026

16th International Conference on Hydroinformatics
Zaragoza, Spain · 22–26 June 2026

Hosted by the University of Zaragoza (UNIZAR) and the I3A

Chair: Prof. Pilar García-Navarro (I3A, UNIZAR)

1. Overview

HIC 2026, the 16th International Conference on Hydroinformatics, was held in Zaragoza, Spain, from 22 to 26 June 2026. The conference was hosted by the University of Zaragoza (UNIZAR) and the I3A — Aragón Institute for Engineering Research (i3a.unizar.es) — and chaired by Prof. Pilar García-Navarro (I3A, UNIZAR). It has become one of the leading international forums for advancing Hydroinformatics and the digital transformation of water systems. The conference brought together researchers, practitioners, industry representatives, and students from over 35 countries, with over 350 delegates in attendance. Hydroinformatics combines hydraulic and hydrological sciences with data analytics, artificial intelligence, digital technologies, and decision-support systems to improve the sustainability and resilience of water systems — a mission made increasingly urgent by climate change, water scarcity, most frequent extreme events, urbanization, and the interdependence of water, energy, food, and ecosystems.

The opening ceremony, held at the Paraninfo of the University of Zaragoza, brought together Rosa Bolea (Rector of the University of Zaragoza), M^a Dolores Pascual Vallés (Director General for Water, Ministry for the Ecological Transition and the Demographic Challenge of Spain), Carlos Arrazola (President of the Ebro River Basin Authority), Philippe Gourbesville (President of IAHR), and Prof. Pilar García-Navarro (Chair of the HIC 2026 Organising Committee).



2. Key figures

Indicator	Value
International delegates	338
Countries represented	31
Abstract submissions	317
Oral presentations	285
Poster presentations	32
Keynote lectures	6
Special sessions	6
Workshops	2
Technical sessions	63+
Full papers received for the proceedings	131



3. Conference themes

Across three days, the program featured 63+ technical sessions organized around eleven thematic areas:

- Technologies for water management and monitoring
- Big data, knowledge, and water data management
- AI-based solutions in modelling methods
- High-performance computing in hydroinformatics
- Digital transformation of urban water systems
- Climate change impacts and climate resilience
- Environmental and coastal hydroinformatics
- Complex water systems, remote sensing, and control
- Water-energy-food nexus
- Innovation in education and training in hydroinformatics
- Innovative water technologies

4. Special sessions

Six special sessions, convened by invited teams, addressed focused and emerging topics:

- Forecasting coastal and river hazards, flooding and water quality
- High-performance computing in hydrodynamics, hydrology and hydroinformatics
- Modelling hydro- and environmental systems (in honor of the 64th birthday of Prof. Reinhard Hinkelmann)
- From models to decisions: decision support and intelligent systems for sustainable aquatic environments
- Water system operation and digital twin
- Advanced hydroinformatics technologies of catchment digital twin: strategy, tools and applications

5. Keynote lectures

Six keynote lectures were delivered by leading experts in the field:

- Prof. Ibrahim Demir (Tulane University, USA). *“Reimagining Hydrology Education, Research and Engineering Practice in the Age of AI”*.
- Prof. Reinhard Hinkelmann (TU Berlin, Germany). *“High Performance Computing in the Hydrosocieties”*.
- Prof. Efi Foufoula-Georgiou (University of California, Irvine, USA). *“Climate-water systems, precipitation extremes and resilience”*.
- Prof. Enrique Playán (CSIC, Spain). *“The Water-Energy-Food-Ecosystems nexus in irrigation management”*.
- Prof. Francesca Pianosi (University of Bristol, UK). *“Greater power, greater responsibility: water systems modelling with ever increasing data and computing power”*.
- Prof. Enrique Cabrera (Universidad Politécnica de Valencia, Spain). *“Digital transformation of urban water systems”*.



6. Scientific program and peer review

The conference received 317 abstract submissions, resulting in 285 oral presentations and 32 poster presentations, complemented by 6 keynote lectures, 6 special sessions, and 2 workshops. Of the accepted contributions, 131 full papers were submitted for publication in the proceedings and partner venues.

All papers followed a review process coordinated by the International Scientific Committee: technical review criteria were defined, each submission was evaluated by one or two experts in the field, authors addressed the reviewers' comments, and revised papers were reviewed until final approval. The published papers reflect the work of the authors and are published as submitted.

The accepted contributions are collected in the HIC 2026 Book of Abstracts and proceedings, published by IAHR and available through the IAHR library (iahr.org). Authors could choose to publish their full papers either in the IAHR Proceedings or in Digital Water — IAHR's open-access journal, which carries no article processing charge and offers rapid publication.

<https://hic2026.org/book-of-abstracts/>

7. Committees

The conference was organized by the following committees:

Member	Role (I3A, Universidad de Zaragoza, Spain)
Prof. Pilar García-Navarro	Chair
Prof. Pilar Brufau	Local Organizing Committee
Dr. Mario Morales-Hernández	Local Organizing Committee
Dr. Adrián Navas	Local Organizing Committee
Dr. Sergio Martínez-Aranda	Local Organizing Committee
Prof. Javier Zarazaga	Local Organizing Committee

A National Organizing Committee and an International Scientific Committee (approximately fifty members from universities and research centers worldwide) supported the organization and the peer-review process. The full lists are available in the Book of Abstracts.

8. Awards

Three awards were presented in recognition of outstanding scientific communication and excellence in presentation, on the basis of the evaluations completed by the session chairs during the conference:

- **Best Poster Presentation** — Noor Ahmad Yaqubi. *“AI-Based Rainfall Forecasting of Extreme Localized Events: A Review”*



- **Best Oral Presentation** — Susanna Dazzi. *“Levee-breach inundation forecasting with deep-learning and hydrodynamic models: the 2020 Panaro River case study”*



- **Best Young Presentation Award** — Lennart Steffen. *“Kokkidio: Performance Portability for Hydroinformatics Code”*



9. Social program and networking

Networking was central to HIC 2026. The welcome ceremony was held at the historic Paraninfo Building in the city center, and the conference dinner took place at the Aura restaurant. Participants received a public-transport card to travel between the city center and the university campus.



A large selection of photographs, organized by day (Monday 22 to Thursday 25 June), is available in the conference album at hic2026.org/album/, where the whole album can also be downloaded. Select photos for the report from there.

10. Young Professionals activities

The Young Professionals program centered on the Best Young Presentation Award, which recognized outstanding scientific communication by an early-career researcher (see Section 8).

11. Venue and host city

Zaragoza is a walkable city in north-eastern Spain, located on the Ebro river and well connected by high-speed rail. The welcome ceremony took place at the Paraninfo Building in the historic center, while the technical sessions were held on the University of Zaragoza campus. The Fluid Mechanics and Hydraulics group of the I3A, with a long tradition in hydraulic engineering and computational hydraulics, hosted the event.



12. Media coverage and outreach

HIC 2026 attracted attention from national and regional media, helping to bring hydroinformatics and water-management challenges to a wider audience. Coverage included:

Onda Cero 24 June

Radio Ebro 25 June

Radio Zaragoza 25 June

Aragon Radio 30 June

rtve/noticias-aragon 23 June

Heraldo de Aragon 11 July



13. Acknowledgements

The organizers gratefully acknowledge the distinguished speakers and delegates, the International Steering Group and the National Organizing Committee, the International Scientific Committee and the reviewers, the session chairs, the conveners of the special sessions, the volunteers, and all contributing institutions. Their support and commitment made HIC 2026 a memorable week. The organizers also gratefully acknowledge the sponsors and exhibitors for their collaboration and support.

14. Concluding remarks and next edition

HIC 2026 in Zaragoza consolidated the hydroinformatics community around data-driven, computational, and digital-twin approaches to water and the environment, and provided a lively forum for exchange between researchers, practitioners, and young professionals. The next edition, HIC 2028, will be hold in Pescara, Italy.

