2027 IAHS ACADEMY: CALL FOR TOPICS (OPEN CALL VERSION)

Building on the success of the first IAHS Academy (Ningbo, January 2026), the second edition aims to further strengthen IAHS capacity-building activities by expanding the scientific offer, enlarging participation, and consolidating the Academy as a flagship global training initiative for early-career hydrologists.

The 2nd IAHS Academy will be hosted again in Ningbo, China, confirming the strong partnership with the host institution and ensuring continuity in logistics, facilities, and organizational excellence.

Ningbo (China), 11–17 January 2027
Venue: Eastern Institute of Technology (EIT), Ningbo

Introduction and Objectives of the 2027 IAHS Academy

The Academy will run up to five parallel short courses, each delivered by senior keynote lecturer(s) (*eventually up to 3 keynote co-lecturers may be considered*) and a junior/early-career co-instructor, integrating state-of-the-art hydrological science, computational tools, and applied case studies. The 2027 edition aims to:

- Strengthen global hydrological capacity among early-career scientists.
- Promote distributed science and open scientific collaboration.
- Foster diversity and inclusion across geographies and institutions.
- Enhance the transfer of scientific algorithms and tools into operational practice.
- Reinforce IAHS strategic priorities and the HELPING decade vision.

Each proposed topic must ensure scientific excellence, strong community backing, and a balanced integration of theory and practice.

How to participate to the 2027 IAHS Academy CALL FOR TOPIC

Please submit a PROPOSAL FOR A TOPIC by **may 8th, 2026** by filling up this form. Forms must be sent to the IAHS Academy Chair by email (fernando.nardi@uniroma2.eu)

2027 IAHS Academy:
PROPOSAL FOR TOPIC
FILL THIS TEMPLATE by May 8th, 2026

1) Title of the Topic

a) Insert here a short title (max 8 words, for flyer)

[Insert short title here]

b) Full title

[Insert full scientific title here]

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2) Keynote Lecturers and Teaching Team

Keynote Lecturer(s) (1–3 maximum)

- Name, affiliation, country
- Role in IAHS (if applicable)
- Scientific expertise relevant to the topic

Additional Senior/Junior / Early-Career Co-Instructor

- Name, affiliation, country
- Role in course delivery (hands-on sessions, mentoring, labs)

Additional Invited Speakers (1–4 maximum)

Short seminars (1–2 hours each), preferably in-person:

- Name – Topic of seminar – Format (in-person/online)
- Name – Topic of seminar – Format

These invited lectures should expand scientific perspective, connect with international academic programs, operational agencies, UN programs, or industry, and reinforce IAHS strategic themes.

Hands-on Support Team

List of additional team members supporting laboratory sessions and case study development:

- Name – Role (e.g., Python lab support, GIS training, model calibration)
- Name – Data preparation and workflow supervision
- Name – Case study coordination

It is expected that the teaching team ensures continuous mentoring throughout the week, including final group project supervision.

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4) Theoretical and Practical Training Material and Case Studies

A core objective of the IAHS Academy is the operational application of theoretical knowledge. Therefore, proposals must clearly demonstrate the availability of structured training material and scientific tools.

Theoretical Material

- Lecture slides (peer-reviewed, structured modules)
- Lecture notes or handbook (PDF/manual)
- Recommended scientific papers
- Conceptual frameworks and analytical derivations
- Uncertainty quantification and model evaluation methods

[Insert Your Theoretical Material here]

Practical / Applied Training Material

Proposals must specify:

- Programming language(s) used (Python, R, MATLAB, etc.)
- Software packages (open-source preferred)
- Pre-developed algorithms by the lecturer's team
- Reproducible workflows
- GitHub or similar repositories

[Insert Your Practical / Applied Training Material here]

Case Studies

Participants should work on real-world datasets, examples may include (inserted here only as a reference):

- Watershed-scale modeling case
- Groundwater system analysis
- Flood hazard mapping
- Monitoring network optimization
- Climate scenario impact assessment

Each course must culminate in:

- *Group-based applied project*
- *Final presentation in plenary session*
- *Integrated workflow demonstration*

The availability of datasets (satellite data, in-situ data, model outputs) must be clearly stated.

[Insert Your Case Studies Material here]

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5) References and Background

Provide:

Key Scientific Publications (5–10 references)

List peer-reviewed papers central to the topic, preferably including contributions from the proposing team.

Example format:

- Author(s), Year. Title. Journal. DOI.
- Author(s), Year. Title. Journal. DOI.

Research Group Website(s)

- URL of the lecturer's research group
- URL of laboratory/institute
- URL of IAHS Working Group (if relevant)

Data and Algorithm Repositories

- GitHub repository link
- Zenodo dataset link
- Institutional repository link
- Model documentation website

Preference is given to proposals ensuring:

- Open-access tools
- Reproducible research practices
- FAIR data principles

[Insert Your References and Background here]

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6) IAHS Mission and Programs Relevance

The proposal must explicitly describe how the topic aligns with IAHS strategic priorities and programs.

Relevant linkages may include:

- *IAHS Scientific Commissions*
- *IAHS Working Groups*
- *HELPING decade*
- *CANDHY MOXXI (…) initiatives*
- *Panta Rhei legacy themes*

- *IAHS conferences and assemblies*
- *SYSTA program support to early-career scientists*
- *Collaboration with UNESCO-IHP, WMO, or UN bodies*

Explain:

- Contribution to global hydrological challenges
- Support to early-career scientists
- Integration of science-policy interface
- Relevance for climate resilience and water security
- Potential synergies with future IAHS events

[Insert Your Info describing relevance to IAHS Mission and Programs here]

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7) Capacity to Attract Applicants

This section must clearly demonstrate the proposal's capacity to attract a critical mass of high-quality applicants (target: 20–30 participants per topic) and its contribution to the overall enrollment objectives of the 2027 IAHS Academy.

Given the strategic goal of expanding participation and reaching approximately 100 total participants across five courses, proposers are expected to provide concrete evidence of scientific visibility, network strength, and outreach potential.

[Insert Your Info describing Capacity to Attract Applicants here]

Please use the following subsections as a reference, but you may adapt the spefications of your proposal as you wish

8.1 Scientific Relevance and Broad Interest

Please describe:

- The global relevance of the proposed topic in addressing pressing hydrological challenges (e.g., climate change, flood risk, drought, groundwater sustainability, digital transformation).
- The interdisciplinary nature of the topic and its potential appeal to:

  - PhD students
  - Postdoctoral researchers
  - Early-career professionals
  - Practitioners from operational agencies
- Emerging scientific trends or policy priorities that make this topic timely and attractive.

Clearly explain why this topic is expected to generate strong interest across continents and scientific communities.

8.2 Networks, Projects, and Institutional Ecosystem

Indicate the scientific and institutional networks connected to the proposing team, such as:

- IAHS Scientific Commissions and Working Groups
- HELPING decade initiatives
- UNESCO-IHP or WMO programs
- EU-funded projects (Horizon Europe, ERC, PRIMA, Interreg, etc.)
- National or regional research programs
- International research clusters or alliances
- Professional associations or academic consortia
- Operational agencies collaborating with the lecturers' team

Provide details on:

- Ongoing funded projects directly linked to the topic.
- Research infrastructures or observatories associated with the course.
- Size and geographical distribution of the related scientific community.
- Mailing lists, newsletters, or community platforms that can support dissemination.

This information should demonstrate that the proposal is embedded in an active and well-connected scientific ecosystem capable of mobilizing applicants.

8.3 Outreach and Recruitment Strategy

Proposers should outline how they intend to actively support the IAHS Academy in attracting participants, including:

- Direct dissemination through:
    - Project mailing lists
    - Scientific networks
    - Social media
    - Research group websites
- Promotion at conferences and workshops prior to September 2026.
- Engagement of former students and collaborators.
- Coordination with IAHS Commissions and Early Career Scientist networks.
- Collaboration with partner institutions in Africa, Asia, Latin America, and other underrepresented regions.

Please specify any concrete commitment, such as:

- Webinars prior to the Academy to present the topic.
- Pre-Academy information sessions.
- Direct mentoring invitations to selected young scientists.
- Integration with existing doctoral training networks.

8.4 Financial Support and Sponsorship Potential

In line with the IAHS Academy growth strategy, proposals should indicate potential financial contributions that may support participation, especially for applicants from disadvantaged countries.

Provide information on:

- Existing research projects that may sponsor participants' travel or registration.
- Institutional scholarships linked to the lecturer's university.
- National mobility grants.
- EU or international project budgets allowing training activities.

- Foundations or private sector partners interested in supporting capacity building.
- Synergies with IAHS SYSTA support mechanisms.

Indicate whether:

- The proposing team is willing to co-fund a limited number of participants.
- External partners have expressed interest in sponsorship.
- Matching funding opportunities may be available.

Financial leveraging capacity will be positively considered during topic evaluation, particularly when aligned with IAHS inclusivity goals.

[Insert Your Info describing Financial Support and Sponsorship Potential here]

8.5 Expected Enrollment and Target Audience

Please specify:

- Estimated minimum number of participants (threshold for activation).
- Expected maximum number (based on lab capacity).
- Target geographical distribution.
- Target career stage (PhD, postdoc, early-career professional).
- Expected disciplinary background (hydrology, hydrogeology, remote sensing, data science, etc.).

Explain clearly why reaching 20–30 participants for this topic is realistic and feasible.

[Insert Your Info describing Expected Enrollment and Target Audience here]

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8) Additional Information

Include any additional relevant elements:

- Estimated minimum and maximum number of participants (recommended: 15–25)
- Required software installation before arrival
- Hardware requirements (laptop specifications)

- Possible field visit component (if feasible)
- Expected long-term impact (e.g., community building, future IAHS WG)
- Potential sponsorship or institutional backing
- Gender and geographical balance strategy in teaching team
- Support for disadvantaged countries (SYSTA alignment)

[Insert Your Additional Information here]