



DIPARTIMENTO DI
GEOSCIENZE
**UNIVERSITÀ
DEGLI STUDI
DI PADOVA**

EX-AQUA 2016

PALAEOHYDROLOGICAL EXTREME EVENTS: EVIDENCE AND ARCHIVES

September 26th- October 1st 2016, Padova, ITALY

Scientific Committee

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Organizing Committee

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Floods and droughts are some of the most serious natural hazards and their catastrophic effects have attracted the global attention to warrant the assessment of their magnitude and frequency, also in relation with climate change. The quantification of the recurrence time and the magnitude of the hydrological extreme events is mainly based on direct measures, that are generally available only for the last decades. But the use of palaeohydrological tools, investigating floods and droughts occurred along the Quaternary, can extend the useful records for assessing present and future extreme events.

The EX-AQUA 2016 is a project supported by the INQUA Commission on Terrestrial Processes, Deposits, and History (TERPRO). The conference in Padova follows the work of the scientific group on Global Continental PalaeoHydrology (GLOCOPH) and, in particular, the international conference HEX 2014 "Hydrological EXTreme Events in historic and prehistoric times", held in Bonn, with tens of researchers of different disciplines (e.g. geologists, physical geographers, geochronologists, historians, archaeologists, palaeobotanists, engineers, modelers, ...). The title EX-AQUA consists of the Latin words "ex" (meaning "from" but also "ancient") and "aqua" (water) and it symbolizes the processes related to the lack or the abundance of water in the past.

The conference is organized by the Department of Geosciences of Padova University and AIQUA (Italian Association for Quaternary Sciences), with the patronage of AIGeo (Italian Association of Physical Geography and Geomorphology). The EX-AQUA project is sponsored by HEX (INQUA Focus Area on Palaeohydrology and fluvial archives - extreme and critical events).

The meeting in Padova will consist of an afternoon welcome session, 2 full days of oral and poster presentations about palaeohydrological events, their archives and the methodology to recognize, describe and date their evidence.

The conference will be followed by a 3-days fieldtrip aimed at discussing methodology and results applied in selected case studies dealing with extreme events in the Venetian-Friulian Plain, the southern Alps, the Classical Karst and Istria Peninsula.

THE VENUE

Padova is 30 km west of Venice and is known also as the city of Sant'Antonio. It can be easily reached from other regions of Italy by train, but also from abroad by flights landing in Venice, Treviso, Verona and Bologna airports. Moreover, the city is connected also with Central and Eastern Europe by bus with rather cheap fares. Padova was a proto-urban centre already in 1000 BC and since its origin it had a strong connection with the Brenta and Bacchiglione rivers and their evolution. The city has been characterized by a dense network of canals until few decades ago. The university was founded in 1222 AD and Galileo Galilei joined it between 1592-1610. The research institution has also a long tradition in Natural History and Engineering and some of its scholars supervised the hydraulic works connected to the management of Venice Lagoon and the reclamation of its mainland.

ABSTRACT SUBMISSION

You can submit abstracts about oral or poster presentations related to the main following topics of suggested sessions:

- Holocene hydrological events and climate change
- Historical flood events and chronology
- Geochronology of palaeohydrological events: methods and results
- Events, phases or periods of flooding and drought: recognition and distinction
- Human impact and societal resilience: Geoarchaeology & Palaeohydrology
- Quaternary fluvial system evolution and flood/drought variations
- Weather, climate and chronicles: temporal series and archives
- Palaeoenvironmental analyses and palaeohydrology
- New techniques of relevance for palaeohydrological investigations

You are also encouraged to promote a session about a topic related to extreme palaeohydrological events not described above.

Send your abstract and specify if you ask for an oral or poster presentation to: secretary.glocoph@gmail.com

The abstract should be written in English, maximum 1 pages of A4 format, according with the format that you can download at www.aiqua.it.

PUBLICATIONS

We are planning to edit an issue of Quaternary International dedicated to the researchers presented in the EX-AQUA 2016 meeting. Particular attention will be devoted to papers dealing with interdisciplinary approaches. There is also the additional possibility to edit an issue of AMQ – Alpine and Mediterranean Quaternary (formerly Il Quaternario - Italian Journal of Quaternary Sciences).

DEADLINES

July 15th 2016: Deadline for abstracts submission.

July 15th 2016: Deadline for payment of early registration and fieldtrip fees.

REGISTRATION

Online registration is available via website of MV Congressi:

<http://mvcongressi.onlinecongress.it/Cod1764>

Registration fee for the conference is 140 € with reductions for students, early-career scientist (i.e. PhD and postdoc) and AIQUA subscribers for 2016. The cost of the fieldtrip will be 350 € including field guide, transport, food and accommodation for the nights of September 29th and 30th.

According to Italian law, the employees of Italian public agencies and institutions can ask for the exemption of VAT taxes on registration fee (see details in the registration website).

Typology	Until July 15 th 2016	After July 15 th 2016
Senior participant	140 € (114.75 € + VAT)	170 € (139.34 € + VAT)
Early-career researcher	110 € (90.16 € + VAT)	140 € (114.75 € + VAT)
Senior participant (AIQUA member 2016)	120 € (98.36 € + VAT)	150 € (122.95 € + VAT)
Early-career researcher (AIQUA member 2016)	100 € (81.97 € + VAT)	130 € (106.56 € + VAT)
Fieldtrip, 3 days from 29/09 to 1/10 *(limited to 30 people, twin room)	350 €	400 €

*For logistic reasons, the number of participants to the fieldtrip is limited to 30 people and the places will be assigned on first-come first-served basis. The fieldtrip fee is all inclusive of transport from / to Padova, entrance tickets to museums and caves, food and accommodation for the 2 nights during the excursion.

FUNDINGS AND GRANTS

The Workshop is organized as an official activity of the Project EX-AQUA 2016, funded by INQUA. INQUA sponsors some grants for early-career researchers (PhD students, postDoc or other young researchers without a permanent position and within 8 years from the PhD). The grants will cover travel and accommodation costs or part of them.

If you are eligible for a grant, send a short Curriculum Vitae and an abstract of your proposed presentation to secretary.glocoph@gmail.com

ACCOMMODATIONS

Padova offers a large variety of Hotels, B&B, and any kind of accommodation. For a cheap hotel very close to the conference hall in Padua, with a basic but clean accommodation (private bathroom and wi-fi), we recommend Hotel Residenza Belzoni. Other possibilities with rather cheap costs and close locations are Hotel Giotto, Hotel Maritan, Hotel Igea, Hotel M14, Hotel B&B. The number of these rooms is limited, thus, make your reservation as soon as possible.

For abstract submission, for any supplementary information about EX-AQUA 2016 conference and/or if you are eligible for a grant, please send an e-mail to: Alessandro Fontana (secretary.glocoph@gmail.com).

CONFERENCE PROGRAM

Monday September 26th

Arrival of participants and in the afternoon invited opening lectures followed by a guided tour of the city centre and the strong connections between fluvial of Brenta and Bacchiglione rivers and the story of Padova since the II millennium BC. In the evening, a simple ice-breaker party will follow.

Wednesday and Tuesday September 27-28th

Full day of oral and poster presentations at the Department of Geosciences of Padova.

In the late afternoon of Tuesday the workshop of the Project EX-AQUA is planned, but more details will be described in a further circular.

In the evening of Tuesday, social dinner in Padova (payment on site).

FIELDTRIP PROGRAM (limited to 30 people because of logistics)

Thursday September 29th

Fluvial evolution and river management in southern-Alpine valleys and Venetian-Friulian Plain.

a) Casso and Longarone: the Vajont landslide and the related catastrophic flood along Piave River; in 1963 the construction of the Vajont artificial reservoir induced a mass failure of about 300 millions of m³ collapsing in the artificial lake and generated an impulse wave that splashed the area of Longarone, claiming about 2000 victims. b) Gorgazzo and La Santissima springs of Livenza River; c) the Cellina and Meduna alluvial fans, relations between southern Alps, alluvial megafans and hydrological circuit. Overnight stay near Spilimbergo.



The braided channel of Tagliamento River in the Friuli Plain, near Spilimbergo.

Friday September 30th

The Tagliamento River: a reference fluvial system for the Alps.

a) Pinzano: from LGM alluvial megafan to present situation of the riverbed; discussion about glacial lake outburst and Holocene events with similar effects and different formation. b) Concordia Sagittaria: Lateglacial fluvial incisions and their funnelling effects for floods and sedimentary transport; the medieval floods and their magnitude; relationships between geoarchaeological and palaeohydrological research. c) Latisana: river management vs. environmental conservation of Tagliamento, benefits and disadvantages; the disastrous floods of the 1965 and 1966. Overnight stay at Trieste.

Saturday October 1st

Hydrological dynamics and fluvial evolution in the Classical Karst and Istria.

a) Novigrad (Croatia): Mirna River system, an unconventional river in the karstic environment; natural forced and human-induced floods; b) Škocjan Cave (Slovenia), visit of the spectacular area where the the River Timavo (in Italian) or Reka (in Slovenian) enters in its underground tract (40 km); c) Duino (Italy), Timavo River mouth: karstic systems and sea-level variations over long and short term periods.

In the evening return to Padova. Possibility for participants to be dropped off at the airport of Friuli, near Trieste, or at the railway station of Mestre (mainland of Venice; 10 km from Venice Airport).