



ICUA2024

International Conference on
Underwater Acoustics
17-20 June 2024, Bath, UK

University of Bath, Chancellors' Building, Bath BA2 7AY, UK

In 2022, the Institute of Acoustics organised the successful ICUA conference in Southampton. The many advances in the field of underwater acoustics since then make it appropriate to hold another international conference to discuss the latest research and applications. We look forward to welcoming our friends and colleagues from all over the world to present their latest research.

University of Bath

Located on a hill overlooking the UNESCO World Heritage city of Bath, the University of Bath received its royal charter in 1966. It is at the forefront of international research in many fields, including underwater acoustics. The conference will take place in the Chancellors' Building on the University's main campus, Claverton Down.

Bath

Beautiful Bath with its stunning honey-coloured Georgian architecture has been a popular destination since Roman times. It is particularly famous for its hot natural thermal springs that visitors can still enjoy and bathe in. Bath's compact and visitor-friendly centre with its numerous places to eat and drink, plus some fine independent shops, and its collection of museums, galleries, theatre, music and sports make it an ideal city to visit.

The conference logo

The ICUA 2024 logo is taken from a stone carving found near the city's Roman Baths. It's normally called the Gorgon's head, because the Romans dedicated the baths to Minerva (Athena) and she had a Gorgon's head on her shield.

Nick Pace Memorial Session

Our friend and colleague left us in 2022 after spending most of his career at Bath. Nick joined Bath in 1973 and organised the first underwater acoustics conference at Bath in 1983, followed by another successful conference in 1993. After nearly a decade on secondment at the NATO Undersea Research Centre in La Spezia (Italy), Nick came back to Bath and organised another conference in 2005 with Philippe Blondel. He participated in the last conference at Bath in 2015. In 2024, we will honour his memory and his many achievements in underwater acoustics, at the forefront of instrument development and field deployments, with presentations from many of his former students and colleagues.

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Topics for this conference include:

- Acoustic measurement of sediment transport
- Ambient sound measurement and modelling
- Bioacoustics and Biosonar
- Bubble acoustics
- Geoacoustic inversion
- Effects of sound on marine life
- Fluctuations and scattering
- Habitat mapping
- Marine renewables
- Machine learning in underwater acoustics
- Measurement and modelling of acoustic particle motion
- Measurement and modelling of air guns and air gun arrays
- Metamaterials
- Noise and vibration from pile driving
- Ocean observatories
- Polar acoustics
- Radiated noise from ships
- Scattering from biota and particles in the water column
- Sea surface acoustic scattering
- Seabed and sediment acoustics
- Sediment and bathymetry imaging and mapping
- Signal processing
- Sonar, vector sensors and transducer technology, testing and calibration
- Sonar performance measurement and modelling
- Standards in underwater acoustics
- Synthetic aperture sonar
- Target scattering
- Tomography
- Underwater communications
- Underwater propagation – 2D and 3D
- Underwater acoustic detection and classification on unexploded ordnance
- Very low frequency acoustics

Prospective authors for both papers and posters are invited to submit a title and a maximum 300 word abstract on the conference website by 31 January 2024. Authors will be notified by 26 February 2024 and invited to submit a full paper by 29 April 2024. Completed papers may be up to 8 pages long, including diagrams. Papers will be reviewed. Papers will be stored and freely available on the IOA website library.

Authors should submit their abstracts on the conference website www.icua2024.org

Organising Committee:

Philippe Blondel, Conference Chair
University of Bath, UK

Andrew Holden, Co-Chair
Dstl, UK

Nikhil Banda, Co-Chair
Drumgrange, UK

Gary Heald
Chair, IOA Underwater Acoustics Group

Michael Ainslie
JASCO Applied Sciences, Germany

Alex Brooker
Clarke Saunders Acoustics, UK

Chris Capus
ULTRA CSS, UK

Alan Curtis
Thales, UK

Kevin Hamson
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Toby Hill
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