

ON BIOMEDICAL IMAGING

ISBI 2024







VISIT WEBSITE biomedicalimaging.org/2024

27-30 MAY, 2024 – ATHENS, GREECE MEGARON ATHENS INTERNATIONAL CONFERENCE CENTRE (MAICC)

Call for submissions

The IEEE International Symposium on Biomedical Imaging (ISBI) is a scientific conference dedicated to the mathematical, algorithmic, and computational aspects of biological and biomedical imaging, across all scales of observation.

It fosters knowledge transfer among different imaging communities, including technological, clinical and industrial communities, and contributes to an integrative approach to biomedical imaging.

It offers an appealing environment for young researchers to pitch on their research and interact with a diverse network of scientists and experts in the entire spectrum of Biomedical Imaging.

ISBI is a joint initiative of the IEEE Signal Processing Society (SPS) and the IEEE Engineering in Medicine and Biology Society (EMBS).

The 2024 edition will be an in-person meeting that will take place in Athens, Greece, and will include tutorials, challenges, and a scientific program comprising plenary talks, special sessions, as well as oral and poster presentations of peer-reviewed papers.

Highlights of the 2024 edition include

- **pharma-meets-imaging:** for the first time, the role of imaging in pharmaceutical development will be highlighted over a dedicated event.
- clinical focus: following previous ISBI clinical day events, this initiative will highlight clinical aspects of Biomedical Imaging.
- art-in-biomedical-imaging: for the first time, ISBI24 will foster an Art-in-Biomedical-Imaging contest, asking participants to go beyond conventional concepts of medical imaging and image analysis and show their artistic talent.
- pitch competition: following the successful ISBI23 initiative, symposium participants can share their startup ideas with the ISBI community.

High-quality papers are solicited containing original contributions in the topics of interest.

All submissions must be original, and not under concurrent review at any other conference or journal.

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Accepted 4-page regular papers will be published in the symposium proceedings by IEEE Xplore.

To encourage attendance by a broader audience of imaging scientists and clinical professionals, ISBI 2024 will continue to have a second track featuring posters selected from 1- page abstract submissions without subsequent archival publication.

Submissions are also solicited for special sessions, tutorials, challenges, as well as the pitch and art-in-biomedical-imaging competitions.

Topics of interest include, but are not restricted to

- image formation and reconstruction
- physical, biological, and statistical modelling
- computational and statistical image processing and analysis,
- image segmentation
- · image quality assessment
- machine learning for image analysis
- · dynamic/ multimodal/ multiplexed/ multiscale imaging
- · computer-aided diagnosis
- integration of imaging and non-imaging biomarkers
- imaging informatics
- visualization in biomedical imaging, and biomedical applications.

Emerging topics include

- biological imaging
- challenging frontiers in AI for medical imaging: interpretability, domain shifts and adaptation, trustworthiness
- the role of medical imaging in in silico modelling, precision medicine and clinical applications
- virtual twins and medical imaging.

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Organizers

General chairs

Konstantina S. Nikita, NTUA, Greece Christos Davatzikos, U Penn, USA

Technical Program Chairs

Spyretta Golemati, NKUA, Greece Elisa E. Konofagou, Columbia U, USA

Plenary chair

Ioanna Chouvarda, AUTH, Greece

Finance

Ilias Maglogiannis, U Piraeus, Greece

Special advisor

Nikos Paragios, TheraPanacea, France

Strategic planning

Andrew Laine, Columbia U, USA

Special sessions

Elsa Angelini, Telecom Paris, France Yu Gan, Stevens Institute of Technology, USA

Award:

Roberto Lavarello, U Católica del Perú, Perú

Challenges

Spyridon (Spyros) Bakas, U Penn, USA **Alex Karargyris,** MLCommons

Tutorials

Aimilia Gastounioti, Washington U in St Louis, USA Aris Sotiras, Washington U in St Louis, USA

Industry

Beatriz Paniagua, Kitware, USA Jon Xue, Shanghai United Imaging Intelligence Co Ltd Lilla Zolley, Massachusetts General

Communication

Hospital, USA

Alexandros Tzallas, U Ioannina, Greece

Diversity

Jose Marcio Luna, Washington U in St Louis, USA

Social media

Konstantinos Mitsis, NTUA, Greece

Important Dates

SPECIAL SESSIONS

Submission deadline: **15 Oct 2023**Accept/reject notification: **10 Oct 2023**

TUTORIALS

Submission deadline: 27 Nov 2023
Accept/reject notification: 18 Dec 2023

CHALLENGES

Submission deadline: **27 Nov 2023** Accept/reject notification: **17 Dec 2023**

4-PAGE PAPERS

Submission deadline: 10 Nov 2023 Accept/reject notification: 26 Jan 2024 Final submission: 16 Feb 2024

1-PAGE ABSTRACTS

Submission deadline: **26 Feb 2024** Accept/reject notification: **11 Mar 2024**

PITCH COMPETITION

Submission deadline: **26 Feb 2024**Accept/reject notification: **11 Mar 2024**