

Call for Challenges

The IEEE International Symposium on Biomedical Imaging 2018 ([ISBI 2018](#)) is soliciting proposals for challenges. The goal of a challenge is to accelerate the pace of research on a demanding academic and/or clinical problem. To accomplish this goal, a challenge should provide a structure for the quantitative comparison of competing methods using standardized datasets and evaluation metrics, and should foster collaboration, communication, and understanding. Critical components of a challenge proposal include the organizing team, the challenge schedule, the challenge topic and representative data. Each challenge needs an organizing team responsible for providing training and test data, defining the tasks, specifying the metrics used to measure performance, managing entries, and organizing the on-site workshop presentations.

Challenges will have corresponding half-day workshops during the first day of the conference and a challenge summary session during the technical program of the conference. We encourage on-site evaluations and scientific presentations during these workshops. However, the organization of a challenge and the agenda for each workshop is determined by the challenge organizers.

We encourage new challenge topics as well as topics that were addressed during previous challenges. New challenge topics could introduce new imaging devices, new biomedical applications, or existing applications that would benefit from focused attention from the medical imaging research community. Challenges that address previous challenge topics could feature, for example, repeating a challenge to track how the field has advanced, addressing bottlenecks in existing processing pipelines, processing larger datasets, analyzing specific sub-populations, or exploring the utility of particular technologies such as deep learning. Prospective challenge organizers are encouraged to discuss their plans in an early stage with the challenge co-chairs.

Important Challenge Dates

Challenge Proposal Deadline	September 25, 2017
Notification of Acceptance	October 2, 2017
Challenge Announcements on ISBI Website	October 9, 2017
Challenge Half-Day Workshops at ISBI	April 4, 2018

How to Submit Challenge Proposal

To propose a challenge, please [fill in the form](#) and submit a PDF document to the ISBI 2018 Challenge Co-Chairs:

- Dan Weller (dsw8c@virginia.edu)
- Bram van Ginneken (bram.vanginneken@radboudumc.nl)
- Adriënné Mendrik (a.mendrik@esciencecenter.nl)

Call for Tutorials

The IEEE International Symposium on Biomedical Imaging (ISBI) is a scientific conference dedicated to mathematical, algorithmic, and computational aspects of biomedical imaging, across all scales of observation. It fosters knowledge transfer among different imaging communities and contributes to an integrative approach to biomedical imaging. ISBI 2018 will be held in Washington D.C., USA, April 4-7, 2018.

ISBI is a joint initiative of the IEEE Signal Processing Society (SPS) and the IEEE Engineering in Medicine and Biology Society (EMBS). ISBI seeks proposals for half-day tutorials, which should provide clear and focused material covering emerging topics in biomedical imaging, with a special focus on algorithmic tools. It is anticipated that four tutorials will be held, in parallel, during four-hour time slots, with a half-hour coffee break in the middle, on the morning of Wednesday April 4, 2018. A total of \$1,000 will be allocated for each tutorial to support travel of the presenters. Due to reduced tutorial registration fees (\$25 for students, \$50 for non-students, \$125 for non-registrants) significant attendance is expected.

Submission format: Tutorial proposals must be submitted as a single PDF file (not exceeding four pages excluding biosketches), which should contain:

- Title, outline, and the relevance to ISBI audience;
- Short description of the material to be covered (no more than 4000 characters);
- Contact information including name, affiliation, email, mailing address, and a two-page biosketch for each presenter;
- Description of the expected audience, especially prerequisite knowledge and skills;
- Description of the expected audience participation, especially whether hands-on computer (or other) work will be involved;
- Description of the coursepacks (including slides and other tutorial material) that will be provided to the audience in hardcopy and/or electronic format. All such material must be free from copyright issues.
- Proposals must be emailed to Jerry Prince (prince@jhu.edu) and Tanveer Syeda-Mahmood (stf@us.ibm.com) with the subject heading ISBI 2018 Tutorial Proposal.

Important Dates: Proposals should be submitted as soon as possible, as the proposals are being reviewed on a rolling basis, and no later than September 25th, 2017. Final notification of acceptance/rejection will be sent by October 26th, 2017.

Call for Special Sessions

We are looking for scientists desiring to organize focused special sessions at the 2018 International Symposium on Biomedical Imaging (ISBI) being held in Washington, DC, between April 4 and 7.

Special sessions concentrate on critical and emerging topics in biomedical imaging, preferably of interest to a relatively large audience.

Each of the sessions is expected to last 1.5 hours, counting between 4 and 5 invited speakers (each exploring different facets of the chosen topic). Presentations will be oral, and only by invitation of the organizers.

We expect these sessions to be a focusing opportunity at the Symposium, establishing synergies and eventual links to relevant communities and exploring the new opportunities that these can offer. A travel reimbursement in the amount of \$1500 will be allocated for each Special Session to support invited speakers. Invited speakers are required to register to the conference, either at the discounted IEEE-rate for the full conference (even if not IEEE members) or at the one-day rate for the day of the special session. Session organizers are also encouraged to seek outside funding to provide additional support for speakers.

In advance of the meeting, invited contributors will be required to either submit a 4-page paper for inclusion in the proceedings, or to submit a 1-page abstract that summarizes the content of the talk (which will not be included in the proceedings), following the regular paper submission deadline. According to IEEE standards, the 4-page invited papers will undergo peer review though this review will be intended to lead to improvement of the manuscript and will not lead to rejection of special session papers. The review process will be organized and supervised by the Chairs (proposers) of the individual special sessions. As contributions are expected to be more of an overview than presenting novel contributions, reviews will essentially focus more on quality than on novelty. The review process will use the same system as the main conference and will run parallel to the main review.

If you are interested, please submit a proposal to

- **Arrate Muñoz-Barrutia** (mamunozb@ing.uc3m.es)
- **Erin Girard** (erin.girard@siemens.com)

with the following information:

1. Brief description of the proposed topic, including justification of its relevance to ISBI.
2. Short CV (2 pages) of the session proposer
3. Expected audience
4. Tentative list of speakers (indicate whether they have agreed to participate).
5. For each potential speaker include:
 1. A description of the talk (1 page maximum)

2. Short CV (2 pages)
3. Indication whether each speaker will submit a 4 page paper or a 1 page abstract

Submission format and Important Dates

Proposals must be submitted as a single PDF file. The subject heading should clearly state **ISBI18 Special Session Proposal**.

Proposals should be submitted as soon as possible, but no later than **September 25th, 2017**, as the proposals are being reviewed on a rolling basis.

Final notification of acceptance/rejection will be sent by **October 9th, 2017**.

Deadline for 4 pages papers submission is **October 16th, 2017** and for 1-page abstract submission, **January 8th, 2018**.

- Arrate Muñoz-Barrutia, Universidad Carlos III de Madrid
- Erin Girard, Siemens Medical Solutions, Medical Imaging Technologies

Call For Contributed Papers

Full-Paper Instructions

Papers are limited to **4 pages**, with an additional \$200 fee for up to **1 extra page**. Four pages must contain technical content, figures, and references, while the 5th page may contain only references. This is the maximum number of pages that will be accepted, including all figures, tables, and references. Any documents that exceed the **5-page limit**, or that have a 5th page containing anything other than references, will be rejected.

Submission Instructions

Download the ISBI Manuscript templates [MS-Word, Latex \(ZIP\)](#)

Manuscripts are submitted online

Go to [Papercept System](#) to upload your paper.

Click “Submit a contribution to ISBI’18”

Click “Submit” next to “Contributed Paper”.

(For Invited Special Sessions ONLY: An alphanumeric code, provided by the session organizer, is required for paper upload.)

An individual can be first author of at most two paper submissions. There is no limit on individuals being co-authors of paper submissions.

By submitting a manuscript to ISBI 2018, authors acknowledge that it has not been previously published or accepted for publication in substantially similar form in any peer-reviewed venue including journal, conference, or workshop. Furthermore, no paper substantially similar in content has been or will be submitted to another conference or workshop during the review period (October 17 – December 18, 2017). The authors also attest that they did not submit substantially similar submissions to ISBI 2017. Violation of any of these conditions will lead to rejection. **Authors of all 4 page paper submissions need to fill out and submit the form “[ISBI 2018 Author Questionnaire](#)”. No paper will be sent out for review unless this form is filled out and submitted.**

Animal/Human Subjects

IEEE-ISBI supports the standard requirements on the use of animal and human subjects for scientific and biomedical research. For all IEEE ISBI 2018 papers reporting data from studies involving human and/or animal subjects, formal review and approval, or formal review and

waiver, by an appropriate institutional review board or ethics committee is required and should be stated in the papers. For those investigators whose Institutions do not have formal ethics review committees, the principles outlined in the Helsinki Declaration of 1975, as revised in 2000, should be followed.

Registration Guidelines:

If you register as a:	Your registration fee allows you to submit
	2 papers in any combination
Full member (EMBS/SPS, IEEE or Non-member)	e.g. 2 contributed papers, 1 contributed paper & 1 abstract, or 2 abstracts
Student member (EMBS/SPS, IEEE or Non-member)	1 paper e.g. 1 contributed paper or 1 abstract

Final Paper Submission Requirements:

Once notification of paper status is sent, each Accepted paper **must** have a Corresponding Author (first and/or presenting author) registered at the appropriate full conference rate in order to upload the final paper submission.

Complete payment of a registration fee is required in order to upload the final submission. If registration is not completed, authors will be unable to proceed with uploading their final manuscript. While any author of the paper may be registered, **only** the designated “corresponding author” may upload the final paper.

Any co-author of the paper can complete registration payment. However, the Corresponding Author **must** upload the final paper by the deadline. Registration fees are non-refundable once the final paper submission has been up-loaded.

The registration deadline for 4-page paper authors is January 8, 2018. Authors who have not registered and submitted their papers by the final submission deadline will be removed from the Proceedings of the conference.

Author No Shows

EMBS enforces a strict “no show” policy. ISBI 2018 requires that each accepted paper be presented by one of the authors, in-person, at the conference site, according to the schedule published. Any paper accepted into the technical program, but not presented on-site will be

withdrawn from the proceedings published in IEEE Xplore ®. A [Paper Substitution/Author Absence form](#) must be completed and submitted by the corresponding author of any paper that has been included in the ISBI 2018 program, when the corresponding author or any co-authors are no longer able to attend and present the paper in the conference.

Co-Author Paper Transfers

We realize changes occur prior to the Conference. In the event, the original Corresponding Author cannot attend the Conference; a co-author can attend to present the paper. The original Corresponding Author must complete the above Paper [Substitution/Author Absence form](#). Registration fees can be transferred to another co-author ONLY under special circumstances. Please contact embs-conferences@ieee.org to request registration transfers.