

## Call for challenge at IUS 2022

Since 2016, the IEEE UFFC International Ultrasonics Symposium has included a challenge every second year. These challenge sessions (PICMUS 2016 [https://www.creatis.insa-lyon.fr/Challenge/IEEE\\_IUS\\_2016](https://www.creatis.insa-lyon.fr/Challenge/IEEE_IUS_2016), SAVFI 2018 [https://www.creatis.insa-lyon.fr/Challenge/IEEE\\_IUS\\_2018](https://www.creatis.insa-lyon.fr/Challenge/IEEE_IUS_2018), and CUBDL 2020 <https://cubdl.jhu.edu/>) have been a great success, and the organizers of the IUS to be held in Venice, Italy from the 10<sup>th</sup> to the 13<sup>th</sup> of October 2022 are soliciting proposals for the 2022 IUS Challenge.

A challenge provides a unique opportunity for friendly competition between research groups from all over the world. Researchers with diverse perspectives and expertise work 1) towards the same objective, 2) with the same datasets, and 3) with the same evaluation criteria. Ideally, the challenge topic should be broad enough to bring together a significant number of participants and it should address an important emerging question in the field. Challenges can be purely computational-based or the physical realization of a prototype, though more complicated to organize, is also a possibility.

We invite any group, or association of groups, in the world willing to organize such a challenge to make a formal proposal. Challenge organizers will get a full oral session to present the results of their challenge during IUS 2022.

### Expected schedule

31st of December 2020 : Challenge proposal submission deadline

31st of January 2021 : Challenge decision notification sent to proposers

Spring 2021 : Challenge organizers submit progress report for review and comment by the IUS challenge committee

IUS 2021 : Challenge call for participation shared with the entire community

Early Spring 2022 : Challenge participation submission deadline (at the same time as the IUS 2022 abstract deadline)

IUS 2022 : Challenge results presentation

### Proposal submission:

Your **PDF** file (3 pages MAX) should include: Acronym and Title, Organizers list, Context, Objectives, Justification of relevance/importance to organize a challenge on this topic, Description of the challenge organization (nature of the data, metrics, platform to host the evaluation or any information that permits to anticipate a smooth progression of the challenge), Prizes and/or sponsors, Tentative list of potential participants.

If you need additional information to prepare your proposal, do not hesitate to contact the members of the IUS challenge committee for informal feedback and potentially some input to help build your proposal.

**Send your proposal as a PDF file by e-mail to [liebott@creatis.insa-lyon.fr](mailto:liebott@creatis.insa-lyon.fr)** with the subject line "IUS 2022 challenge proposal" before the 31st of December 2020.

**IUS challenge committee:** Muyinatu Bell, Jan D'Hooge, Koen van Dongen, Erdal Oruklu, Jorgen Jensen, Hervé Liebgott.

*This document can serve as a template for a challenge proposal for the IEEE IUS 2022. No section should be removed, but any additional section that the organizers want to add if they consider relevant for the evaluation of their proposal is welcome. The proposal should be submitted to liebott@creatis.insa-lyon.fr with the subject line "IUS 2022 challenge proposal" before the 31st of December 2020. The proposal should be a PDF file (3 Pages MAX) with name IUS\_2022\_challenge\_ACRONYM.pdf.*

## **Challenge full title**

### **ACRONYM**

#### **Organizers names and Institutions**

Context

Objectives

Justification of relevance/importance to organize a challenge on this topic

Challenge organization

*(should include but is not restricted to nature of the data, metrics, platform to host the evaluation or any information that permits to anticipate a smooth progression of the challenge)*

Prizes and/or sponsors

Tentative list of potential participants.

*(Names, countries and institutions)*