



CALL FOR SIGNAL PROCESSING GRAND CHALLENGE PROPOSALS

Signal Processing Grand Challenges (SPGC) Program 2022 IEEE International Conference on Acoustics, Speech, & Signal Processing (ICASSP 2022)

Grand Challenge Chairs:

Andy W. H. KHONG, Nanyang Technological University, Singapore
Wee Peng TAY, Nanyang Technological University, Singapore

Signal Processing Grand Challenges (SPGC) Program Call for Proposals:

The 2022 International Conference on Acoustics, Speech, & Signal Processing (ICASSP) invites proposals for its Signal Processing Grand Challenges (SPGC) program. ICASSP is the IEEE Signal Processing Society's flagship conference targeting signal processing and its applications. ICASSP 2022, to be held in the vibrant island-nation Singapore, includes keynotes by international speakers, cutting-edge tutorial topics, and forward-looking special sessions. ICASSP 2022 also provides a great networking opportunity with a wide range of like-minded professionals from academia, industry, and government organizations.

SPGC Program Guidelines:

- **Proposal:** Prospective SPGC organizers should include the following items in their proposal:
 - One-page call for participation;
 - Signal Processing Grand Challenge description;
 - Description of the dataset provided for training and evaluation, evaluation criteria and methodology, guidelines for proponents, and submission deadline; and
 - List of potential participants.
- **Participation:** Grand Challenge organizers should facilitate participation, communication, and impact. Grand Challenge organizers are not allowed to participate in the competition they are organizing.
- **Dataset:** If applicable to the challenge, organizers should make the competition datasets available to the participants. Organizers are encouraged to provide at least one training dataset with both input and ground truth and one test dataset without the ground truth—the latter to be used for final assessment. A secondary test set for evaluation, which is not available to participants, is also encouraged to highlight the generalizability of their approach.
- **Evaluation:** How the results are evaluated and ranked should be announced along with the challenge description. During the competition, the participants and organizers have to follow the challenge's criteria carefully. The evaluation methods should be unbiased and transparent to all participants. Regular update of ranking is also encouraged via management platforms such as Kaggle or Piazza. Provision of baseline approaches and evaluation metrics is encouraged.
- **SPGC Papers:** Each SPGC would have around 2-3 months to run the competition and rank/select winning teams. Each SPGC can have up to 5 papers from the top ranked teams. The format should be consistent with ICASSP regular paper, and should be submitted before the camera-ready deadline.

- Organizers are responsible for coordinating the review of the challenge papers.
 - SPGC papers have the same camera-ready deadline as regular papers, but with a much tighter review cycle.
 - The SPGC paper submission deadline should coincide with the model submission deadline for SPGCs.
 - The SPGC paper acceptance announcement should coincide with the model evaluation results announcement. This gives proponents the maximum amount of time to prepare their models for submission to SPGC organizers for evaluation.
- **SPGC Sessions:** SPGC organizers should organize accepted SPGC papers into their own 2-hour SPGC session in the ICASSP 2021 program. This session should include SPGC paper presentations (oral or poster), typically followed by a panel or open discussion. At the end of the session, the organizers should announce the winners of the competition.

Important Dates:

- Proposal submission deadline: **18 October 2021**
- Notification of proposal acceptance: **8 November 2021**
- Grand challenge paper acceptance: **10 February 2022**
- Camera-ready grand challenge papers due: **17 February 2022**

Contact Information: For inquiries please contact the SPGC committee. Email contacts are given below:

- Andy W. H. KHONG, Nanyang Technological University (andykhong@ntu.edu.sg),
- Wee Peng TAY, Nanyang Technological University (wptay@ntu.edu.sg)