

## **Welcome Message of the General Chairman**

It is a great pleasure for me to welcome you to the 12th European Conference on Synthetic Aperture Radar (EUSAR) 2018 in the beautiful city of Aachen. Started in 1996 as the first dedicated conference on Synthetic Aperture Radar, over the years EUSAR has evolved to become the leading international conference in the field of SAR techniques, technology and applications. EUSAR is attracting SAR engineers and scientists from all over the world, presenting their newest and most challenging results and discussing exciting ideas for future developments.

SAR has long grown up and has become an exceptionally powerful tool in various civilian and military applications. In the future, SAR will be used not only for remote sensing, or as an important contribution to surveillance and reconnaissance in conflict areas, but for many more applications such as a true imaging component in automotive sensors, or in highly interesting indoor applications. SAR is still very attractive scientifically; engineers and scientists still succeed in making substantial innovations in fields ranging from the sensor hardware all the way to the complex mathematical challenges of signal and data processing. This is strikingly illustrated by the diverse program of EUSAR 2018.

The Technical Program Committee, consisting of a multitude of international experts, has selected 340 contributions from 33 countries, which will be presented in 50 oral sessions and the distinguished poster session. The presentations will be given in five parallel sessions. For beginners and future experts, five full-day tutorials will be offered on topical themes. Furthermore, an industrial exhibition will be hosted, presenting new developments and products by international companies and hereby offering a forum for academics, professionals and industry representatives. EUSAR 2018 will also comprise different events, like the celebrated piano concert by Richard Klemm, the Get-Together in the town hall, and the Conference Dinner. The conference will be concluded by the well-known awards presentation.

The conference site is the Eurogress Aachen, situated in a beautiful park near the town center. Within walking distance there is the more than 2000 years old historic city center, with many impressive ancient buildings. Particularly noteworthy are Aachen cathedral, developed in the course of more than 1200 years of history, and Aachen town hall, comprising diverse building structures of the last centuries. Nowadays, the renowned International Charlemagne Prize is awarded there.

I am looking forward to meeting you in Aachen during EUSAR 2018!

**Andreas Brenner**

EUSAR 2018 General Chairman  
Fraunhofer FHR, Germany

## Welcome Message of the Technical Chairman

On behalf of the program board I would like to welcome you to EUSAR 2018.

This year's edition of EUSAR enjoys a superior response from academia, industry and scientific institutions from all over the world. To our greatest pleasure, all important fields of SAR have been covered, including the latest results from SAR systems and missions, news from the cutting-edge in technology and signal processing, and advanced data evaluation, modelling and feature extraction, as well as unconventional applications.

The technical program committee of more than 120 international well-known SAR experts have reviewed carefully all submitted papers. From these contributions 250 papers were selected for oral presentations (5 session parallel) and nearly 100 papers for the interactive poster session. The oral sessions are organized in 5 parallel sessions with minimal interference between the session topics.

On Monday, prior to the opening of EUSAR 2018, a set of tutorials is given where the interested attendees can get a deep dive into selected technical or application aspects of SAR technology. The higher level perspectives and future trends in Synthetic Aperture technology will be given by Keynote Speakers during the opening plenary session on Tuesday. On the evening, after the traditional piano recital in the Eurogress conference center, you will have time to discuss hot topics with colleagues during the conference dinner in the Krönungssaal (town hall of Aachen, about 20 minutes walking distance). Special attention should be given to the interactive poster session on Wednesday evening. It will be a good opportunity for fruitful debates with new colleagues and their ideas within a relaxed atmosphere. Also have a look at our Best-SAR-Image display area where every attendee can pin-up his best SAR image without any competition.

A commercial exhibition will be hosted during the conference showing the latest industrial developments in SAR systems and applications.

Posters will be displayed throughout the three conference days. However, on Wednesday evening we will have the interactive poster session, also known as wet-poster-session. Here authors and participants have time to discuss their research results with the participants of the conference.

At the closing session on the last day of the conference a Best Paper Award, a Best Poster Award, and three Best Students Awards will be presented. The independent award committee is under the lead of Prof. Lombardo from Sapienza University of Rome.

All papers received prior the deadline and presented at the EUSAR conference will profit from the visibility of their contributions in ISI and SCOPUS databases, whereas the publications will be made accessible in the conference proceedings and in IEEEExplore.

I would like to express my thanks to all authors for their outstanding submissions and in particular to the members of the Program Committee for their competent evaluation of the high number of submissions assuring the technical quality of the conference. Likewise, I thank the organizers of the Invited Session for their careful preparation of their sessions and the Session Chairs for leading the sessions. Last but not least I would like to thank all participants for providing the whole content of this year's edition of EUSAR 2018. Have fruitful discussions and let the conference be once again a successful forum for creation of new ideas and networks.

I'm looking forward seeing you in Aachen!

**Matthias Weiß**

EUSAR 2018 Technical Chairman & EUSAR Executive