

Welcome from the General Chairmen

It is our great pleasure to welcome you to the premiere of the 2023 Joint Edition of the VDE ITG Workshop on Smart Antennas (WSA) and the VDE ITG Conference on Systems, Communications, and Coding (SCC). It is the 26th edition of the WSA and the 13th edition of the SCC. We, the general chairs, are happy that the joint event will take place in presence onsite at TU Braunschweig in Brunswick, Lower Saxony. For the scientific exchange and for meeting colleagues and friends, the onsite meeting is the best option. For the joint event, we had a hard-working team of organizers, support from VDE, from TU Braunschweig, technical co-sponsorship from IEEE Communications Society and EURASIP, as well as two industrial sponsors and the Deutsche Forschungsgemeinschaft (DFG).

Looking at the schedule of WSA & SCC 2023, we identify almost a complete week of excellent invited keynote speakers, timely and relevant special sessions, regular sessions with oral and poster presentations, and a demo and prototype session. In addition, we look forward to the welcome reception on Monday evening in our old townhall of Brunswick and to the social event with fine cuisine and cultural ambience.

A special acknowledgement is owed to the TPC chair Stephan ten Brink and his team of TPC members who have guaranteed a rigorous and timely reviewing process that led to proceedings of high scientific standards as well as a lively technical program. The technical program includes regular sessions on classical topics such as channel and source coding, antennas, precoding, optics, multi-dimensional spaces as well as modern timely topics such as machine learning including federated learning, reconfigurable intelligent surfaces, and communications and sensing. In addition, the technical program includes a set of special sessions that presents carefully selected highlights from the German 6G research hubs. These sessions touch upon Integrated Sensing and Communications (organized by Anke Schmeink and Giuseppe Caire), Smart Radio Environments for 6G (organized by Robert Schober and Vahid Jamali), Satellite Communications for 6G (organized by Bho Matthiesen, Dirk Wübben, Armin Dekorsy, and Petar Popovski), and Explorative Concepts for 6G Air Interface (organized by Laurent Schmalen and Stephan ten Brink).

This year, WSA & SCC 2023 hosts six invited keynote speakers whose topics present a representative cross section through the topics of WSA as well as SCC ranging from information theory (Igal Sason) and mathematics for cryptography (Cong Ling), modulation and coding for nonlinear optical communications (Alex Alvarado), over signal processing for communications (Erik Larsson), to access protocols with reconfigurable intelligent surfaces (Petar Popovski) and intelligence at the wireless edge (Deniz Günduz).

We would also like to thank the rest of our organizing team that included our local arrangement chair Inga Schleicher from the Institute of Communications Technology at TU Braunschweig, and our very active and reliable publication co-chairs Bho Matthiesen and Pin-Hsun Lin. Special thanks also go to our advisory board members Wolfgang Utschick and Josef Nossék for their trust and advice, our industry sponsors Ericsson and NI for their generous contributions, the DFG for supporting the invitation of speakers, and also of course the administration of TU Braunschweig that has offered the flexibility and their support to make sure that WSA & SCC 2023 is successful.

Finally, special thanks go to our authors, speakers, and attendees for making this WSA & SCC 2023 a very special joint event. We hope you will enjoy the presentations and interactions with your peers on the newest scientific findings, and the opportunity to interact with old friends and colleagues.

Welcome to WSA & SCC 2023!

January 2023

Prof. Dr.-Ing. Eduard Jorswieck and Prof. Dr.-Ing. Robert F.H. Fischer
TU Braunschweig, Germany Universität Ulm, Germany

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