Z43 NEWSQUARTER
No.11 / 2020

Dear Z43 Partners, Friends, and Followers

The coronavirus pandemic is a crisis unlike any other in recent history. In addition to the human impact, its spread causes significant upheavals in research, teaching, and businesses alike.

At Z43, we are working to keep disruption to a minimum and to maintain our core operations. Especially now, our priority is the safety of our employees and local communities, and we take every precaution necessary to minimize COVID-19 transmission.

At the moment, we are confident that we can meet all our commitments with our usual level of high-quality customer support. While the situation remains dynamic, regular updates on the status of our operations can be found on our IT'IS, SPEAG, and ZMT websites.

Stay safe and healthy!

Z43 GONE VIRAL!
COVID19 Virtual Whiteboard

MEASUREMENT

EASY6 – DASY6 Technology for Any Setup

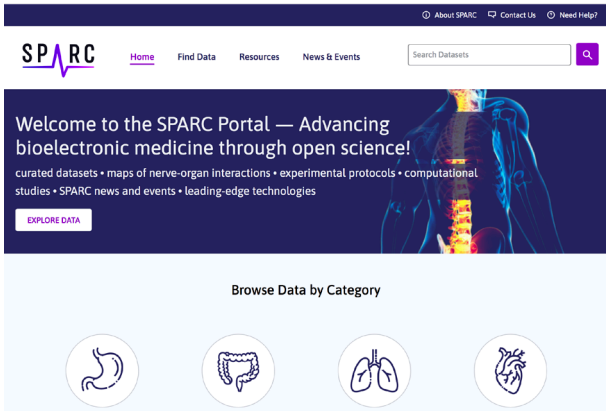
SPEAG released EASY6, an easy-to-use solution for performing measurements with SPEAG's high-precision field and temperature probes. EASY6 is optimally suited as a stand-alone measurement system for monitoring and controlling radiofrequency fields, e.g., in open-sites, anechoic chambers, electromagnetic compatibility laboratories, reverberation chambers, as well as in clinical and biomedical applications. It also has a powerful application programming interface that allows the integration of EASY6 into any custom-made measurement setup for automated measurements. Curious about how it works?

Check out our EASY6 video.

VIRTUAL POPULATION

Official Launch of NIH SPARC Portal

Following the release of a preview version at ISAN 2019, the US National Institutes of Health has now officially launched the "Stimulating Peripheral Activity to Relieve Conditions" (SPARC) online portal – an open-source public web-application that serves as an entry point for the public to search, access, and interactively explore the steadily growing collection of data, maps, and computational models generated by SPARC investigators. In this initial version on the portal, the IT'IS o²S²PARC platform provides computational and visualization services that selected SPARC researchers have already shared with the community.



Z43 SOCIAL

Z43 Retreat 2020

The Zurich43 annual retreat was held 27 – 28 January 2020 at Hotel Frutt-Lodge in Melchsee-Frutt, this year on the topic of "Artificial Intelligence". Over 30 participants came together to discuss the benefits of artificial intelligence (AI) as well as the opportunities and threats for research, technology, and society. The collected results from these discussions were used as a basis for creating an AI research group that will focus on utilizing AI to advance Z43's technologies.

A very special thanks to all participants for all the valuable input and interesting discussions and in particular to Prof. Peter Niederer and Prof. Peter Achermann for their guidance throughout the retreat!

RESEARCH

PUBLICATIONS

Discussion on Spatial and Time Averaging Restrictions within the Electromagnetic Exposure Safety Framework in the Frequency Range Above 6 GHz for Pulsed and Localized Exposures
E. Neufeld et al., 2020, Bioelectromagnetics, 41(2):164–168, doi:10.1002/bem.22244
(online 30 December 2019)

RF-Induced Temperature Increase in a Stratified Model of the Skin for Plane-Wave Exposure at 6 – 100 GHz
A. Christ et al., 2020, Radiation Protection Dosimetry, ncz293, doi: 10.1093/rpd/ncz293
(online 16 January 2020)

Assessment of Genotoxicity in Human Cells Exposed to Modulated Electromagnetic Fields of Wireless Communication Devices
D. Schuermann et al., 2020, Genes 11: 347, doi: 10.3390/genes11040347
(online 25 March 2020)

Novel Test Field Diversity Method for Demonstrating Magnetic Resonance Imaging Safety of Active Implantable Medical Devices
A. Yao et al., 2020, Physics in Medicine and Biology, 65(7):075004. doi: 10.1088/1361-6560/ab7507
(online 06 April 2020)

Modelling Intracranial Aneurysm Stability and Growth: An Integrative Mechanobiological Framework for Clinical Cases
F. S. Teixeira et al., Biomechanics and Modeling in Mechanobiology, in press