

## MEASUREMENTS



### DAK-R The Only Multi-Frequency Resonator For Testing Low-Loss Materials

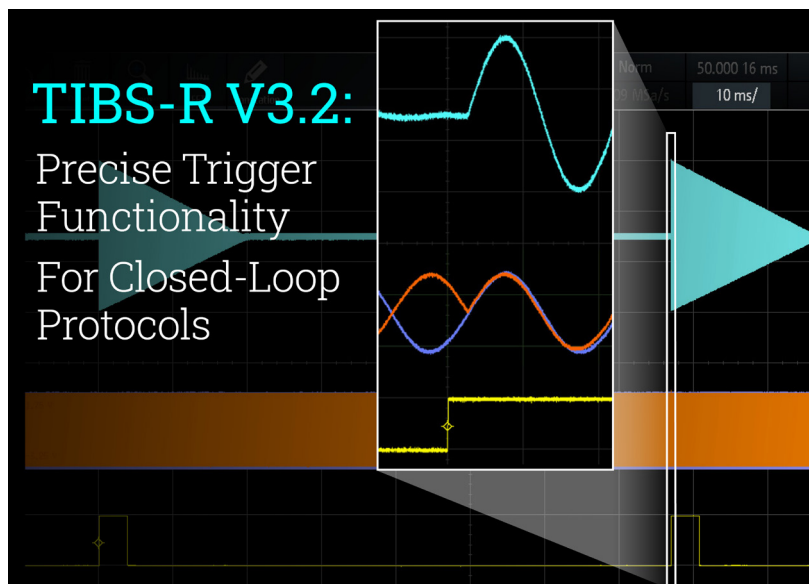
#### Release of DAK-R

SPEAG is excited to introduce DAK-R, the world's first true multi-frequency resonator cavity for accurate low-loss material characterization at 10, 17, 26, 35, and 45 GHz – all in a single measurement! The new DAK-R is based on a novel cavity combined with the most advanced solver. More information is available [here](#).

## TEMPORAL INTERFERENCE

### TIBS-R V3.2: Triggered Arbitrary Shape TI Envelope Pulses for Closed-Loop Protocols

TIBS-R V3.2 has been released, introducing the ability to deliver envelope waveforms of arbitrary shapes to the target region with minimal latency upon receipt of an external trigger. When combined with a feedback loop – e.g., from the electroencephalogram – this new feature makes it easy to implement flexible closed-loop stimulation protocols. Read more about TIBS-R V3.2 on the TI Solutions [website](#).



## RESEARCH FELLOWSHIPS

### Katja Poković Research Fellowship



The 2025 Katja Poković Research Fellowship call for proposals is now open! This competitive fellowship supports outstanding female scientists performing research in electromagnetics and its applications in information and medical technologies. The submission deadline is **April 30, 2025, 23:59h Swiss local time**. More details are available on our [website](#).

## INTERNATIONAL PROJECT

### EpiTIW Project Kick-Off

Mid-February, IT'IS members traveled to Belgium for the official kick-off of our new project "Minimally Invasive Targeting of Deep Brain Structures to Treat Epilepsy Using Temporal Interference Stimulation" with our collaborators, the Ghent University's 4BRAIN Lab and the Center for Care & Cure Technology Eindhoven. The aim of this project is to establish the foundation for a new paradigm for the use of TI stimulation in the treatment of epilepsy. We look forward to an exciting collaboration!

## STANDARDS

### IEC TC 106 and IEEE ICES TC34 Meetings



IT'IS were excited to host the latest IEC TC 106 and IEEE ICES TC34 meetings at the end of February in Zurich and on top of Mount Pilatus. The bird's eye view and the relaxed atmosphere facilitated progress on several standards (IEC/IEEE 62209-5, IEC/IEEE 63195-3 and -4, IEC/IEEE 63480). Read more on our [website](#).

## MEASUREMENTS

### Release of DASY8 Module APD V1.2



DASY8 Module APD has been upgraded and further enhanced with the new DAE8APD, PHA-30GV2, and software version 1.2 for improved measurement speed and precision. Module APD V1.2 systems have been delivered and successfully installed at the sites of two major regulators in Japan and South Korea, underpinning the progressive regulatory adoption of our technology. Learn more on our [website](#), and, for further information, please contact us at [info@speag.swiss](mailto:info@speag.swiss).

## RESEARCH

### PUBLICATIONS

**Recommendations for the Safe Application of Temporal Interference Stimulation in the Human Brain Part II: Biophysics, Dosimetry, and Safety Recommendations**

A. M. Cassarà, *et al.* 2025, *Bioelectromagnetics*, doi: [10.1002/bem.22536](https://doi.org/10.1002/bem.22536) (online 15 January 2025)

**A 49.8-mm<sup>2</sup> IR-UWB Transmitter with Co-Designed Power Amplifier and Antenna for Neural Implants with Extended Transmission Range**

C. Ding, *et al.* 2025, *IEEE Journal of Solid-State Circuits*, doi: [10.1109/JSSC.2025.3531234](https://doi.org/10.1109/JSSC.2025.3531234) (online 29 January 2025)

**Recommendations for the Safe Application of Temporal Interference Stimulation in the Human Brain Part I: Principles of Electrical Neuro-modulation and Adverse Effects**

A. M. Cassarà, *et al.* 2025, *Bioelectromagnetics*, doi: [10.1002/bem.22542](https://doi.org/10.1002/bem.22542) (online 07 February 2025)

**An Implantable Biohybrid Neural Interface Toward Synaptic Deep Brain Stimulation**

L. Sifringer, *et al.* 2025, *Advanced Functional Materials*, doi: [10.1002/adfm.202416557](https://doi.org/10.1002/adfm.202416557) (online 09 February 2025)

**Precision Non-Invasive Brain Stimulation: An In Silico Pipeline for Personalized Control of Brain Dynamics**

F. Karimi, *et al.* 2025, *Journal of Neural Engineering*, doi: [10.1088/1741-2552/adb88f](https://doi.org/10.1088/1741-2552/adb88f) (online 20 February 2025)

**Focal Control of Non-Invasive Deep Brain Stimulation Using Multipolar Temporal Interference**

B. Botzanowski, *et al.* 2025, *Bioelectronic Medicine*, accepted

**The Implantable System to Restore Hemodynamic Stability After Spinal Cord Injury**

A. A. Phillips, *et al.* 2025, *Nature Medicine*, accepted

**Non-Invasive Temporal Interference Stimulation of the Subthalamic Nucleus in Parkinson's Disease Reduces Beta Activity**

I. Rektorova, *et al.* 2025, *Movement Disorders*, accepted

## SIMULATIONS

### Sim4Life.web V8.4



Sim4Life.web V8.4 is here, featuring: **The Shop:** Instant access to posable Virtual Population anatomical models and electromagnetic phantoms directly in the graphical user interface – **Automation:** Full-featured JupyterLab and Amazon Web Services integration – **Refreshed Interface:** Streamlined menus and drag-and-drop actions. Sim4Life.web V8.4 is available exclusively on the [sim4life.swiss](https://sim4life.swiss) web platform – find out more [here](#). And this is just the beginning – Sim4Life V9.0 is scheduled to launch in 3 months, so stay tuned!

## AWARD

### BioEM STM Grants

Cindy Karina, PhD Student co-supervised by the Department of Information Technology and Electrical Engineering of the ETH Zurich and the IT'IS Foundation, and Parisa Karimi, assistant professor at the Isfahan University of Technology, Iran, were awarded two 2025 *Short Term Mission of Students or Early Stage Researchers Grants (STM)* funded by the BioEM Society! For their short [projects](#), Cindy will visit the UK Health Security Agency while Parisa will be hosted at the IT'IS Foundation. Congratulations!

## Z43 SOCIAL

### Zurich43 Retreat 2025 on ChatGPT and Generative AI



At the end of January, participants gathered at the Hôtel des Horlogers in Le Brassus in the Canton of Vaud, Switzerland, for the annual Z43 retreat on the topic “ChatGPT and Generative AI” to explore the transformative impact of generative artificial intelligence (AI) across disciplines and to address ethical implications, future projects, and internal guidelines for AI use and development. Over the next few weeks, we will begin implementing the ideas shared to ensure that they guide us in navigating this dynamic and transformative field.