

## The Institute of

# **Electrical & Electronics Engineers IEEE**

## The Power Chapter Presents a WEBINAR:

### How Close Can Far-Field Be? Getting the Best out of Your Measurement Range

By

Dr. Benoit Derat, Senior Director for Systems Developments and Project Implementations, Rohde & Schwarz, Munich

#### WEBINAR Date: WEDNESDAY, APRIL 30, 2025 AT 2:00 PM U.S. EDT

For this webinar copy the link below into your browser to register:

#### https://events.vtools.ieee.org/m/441934

Trends in modern wireless communications, including the use of massive MIMO and millimeter wave frequencies, have supported an increased deployment of electrically large antennas. This created technical and economic challenges as many EMC or regulatory tests require a far-field condition. This talk provides an overview of the recent findings in defining the shortest possible far-field test distance, depending on the size of the device under test, its operation frequency, the target metric and the upper bound acceptable measurement deviation. Practical ways are also described to determine the maximum antenna aperture size that can be tested in the far-field at a given frequency and for a maximum error, in an existing chamber with a defined range length.

#### WEBINAR PRESENTER:

Benoit Derat received the Engineering degree from SUPELEC, in 2002, and the Ph.D. degree (Hons.) in physics from the University of Paris XI, in 2006. From 2002 to 2008, he worked at SAGEM Mobiles, as an Antenna Design and Electromagnetics Research Engineer. In 2009, he founded ART-Fi, which created the first vector-array specific absorption rate measurement system. He operated as the CEO and the President of ART-Fi, before joining Rohde & Schwarz, Munich, in 2017. He is currently the Senior Director of Engineering for Vector Network Analyzers, Electromagnetic Compatibility, Over-The-Air and Antenna Test applications. Dr. Derat is a Senior Member of the Antenna Measurement Techniques Association (AMTA) and a Distinguished Lecturer of the IEEE EMC Society (2024 – 2025). He is the author of more than 80 scientific journals and conference papers, and an inventor on more than 40 patents, with main focus in antenna systems near and far-field characterization techniques.

For inquiries, contact:

Richard Kolodziejczyk P.O. Box 401, Hinsdale, MA 01235 (413) 655-2623 E-mail: rkolod@IEEE.org