

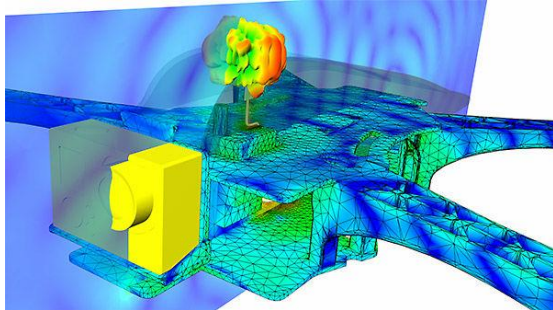
Advanced antenna simulation methods for new communication systems with Ansys

Abstract:

High frequency electromagnetic field simulation allows performing a virtual test of antennas before they are actually built. Simulation helps to visualize and understand the physics that is happening in your design. In this workshop important and new simulation techniques that are especially useful for antenna design will be highlighted and demonstrated. A special focus will also be set on antennas in placement situations: new volumetric SBR+ technology for radome simulation; hybrid solver methods, the new mesh fusion technology to handle problems extending over many length scales and complexity scales and the coupling with thermal and structural simulations.

Workshop outline:

This workshop will be a technical session, in which technologies of high frequency field simulation that are important for antenna design, will be explained and demonstrated. The focus will be on three main points: Antennas on large platforms and how to bridge many size scales using hybrid solver technology and the new mesh fusion technology. Radome simulation using SBR techniques and how to tackle multiphysics simulation aspects during the antenna design stage. The aim of this industrial workshop is that the participants learn how those simulation technologies work and how to apply them.



Samuel Lopez is an Application Engineer at Ansys in Spain. He earned a master's degree in Telecommunication Engineering, graduated with honors. His Master Thesis was awarded as the best thesis in new satellite communications.

Samuel joined Ansys in 2018, he supported researchers and engineers in various electronic departments involved in the design of advanced antennas, filters or PCBs.

Based in Spain and part of the Ansys Electronics Team, he is senior engineer and provides expertise in Electromagnetic and Multiphysics simulation and best practices to automate workflows with scripting.