

Industrial Workshop IW04

Methods for Simulation Driven Antenna Design (by Ansys)

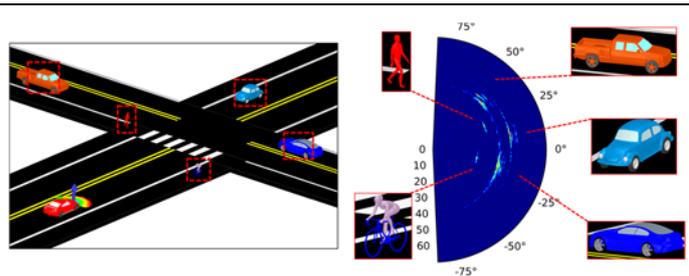


Abstract:

High frequency electromagnetic field simulation is an essential and indispensable tool in antenna development: It allows to perform a physical test of antennas before they are actually built and to visualize and understand the physics that is happening.

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:

Analytic derivatives for fast tuning of design parameters; hybrid solver methods and the new mesh fusion technology to handle problems extending over many length scales and complexity scales.



Workshop Program (Tuesday 23 March 2021, 11.40-13.10h)

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: Antenna tuning and optimization, especially with the use of analytic derivatives; Antennas on large platforms and how to bridge many size scales using hybrid solver technology and solving geometrically complex settings using the mesh fusion technology. The aim of this industrial workshop is that the participants learn how those simulation technologies work and how to apply them.