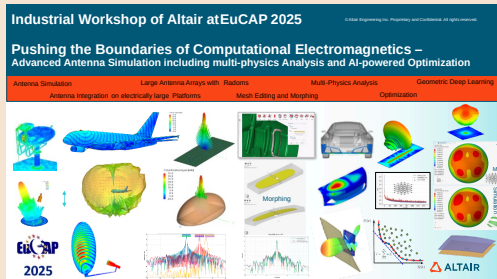


Pushing the boundaries of Computational Electromagnetics - Advanced antenna simulation including multi-physics analysis and AI-powered optimization

Abstract

With the increase in connected devices and platforms (such as 5G, 6G, C-V2X, ADAS etc.), advanced computational electromagnetic (CEM) tools have become part of the product design cycle. Now numerical simulations can be performed to evaluate the effects of antenna design, placement, radiation hazard, EMC/EMI, etc. for wide ranging industry applications.

In this workshop we demo for practical use cases EM-analysis workflows in Altair tools Feko, WinProp, Simlab, HyperStudy and physicsAI and show efficient preprocessing, simulation and optimization approaches. The focus is on new and recently added features, and addresses visitors with and without simulation experience.



Speakers

Dr. Christoph Mäurer is Lead Technical Specialist EM Solutions at Altair.

He received his M.S. (Diplom) in 1994 and his PhD in 1997 from TU Darmstadt and has been working in computational Electromagnetics (CEM) for over 25 years in customer projects and software development. He is particularly interested in how new methods can be integrated into simulation and optimization processes to make them more efficient. Recently he worked on efficient methods for RCS analysis and on applications of geometric deep learning in CEM. He published several papers about CAGD, CEM and ML.