Ansys HFSS Mesh Fusion Technology and What's New in HFSS 2022R1

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Thursday, August 11, 2022 | 10:00 AM | EIT-3142

ABSTRACT

HFSS Mesh Fusion continues to use the same "electromagnetically aware" adaptive meshing technology as before without compromising accuracy because a fully coupled electromagnetic matrix is solved with each adaptive mesh step and for each point in a frequency sweep. HFSS Mesh Fusion's patented technology enables much more complex designs to be simulated with the same rigor, accuracy, and reliability of Ansys HFSS. It accomplishes this by applying targeted meshing technologies within the same design, appropriate to the local geometry. It provides best-in-class parallel meshing technology, enabling fast simulation of large electromagnetic systems. Think of large, in fact very large, complex systems such as a 5G millimeter wave array antenna, IC-package-PCB-connector combination, TV in an electromagnetic interference (EMI) chamber, antenna on an aircraft and everything else that warrants a large-scale electromagnetic simulation. HFSS Mesh Fusion targets two critical customer challenges: Electromagnetic system simulation and accuracy without compromise.

Please join us for this seminar where we will go over all the new innovations in Ansys HFSS 2022 R1. Some big enhancements included in this release are the addition of the ground-breaking Phi Plus meshing technology into the HFSS Mesh fusion simulation flow, introduction of a new Broadband Fast Sweep for rapid extraction of broadband frequency data, and the addition of a new surface roughness model to provide more realistic outputs for automotive radar scene analysis using the HFSS SBR+ solver technology

BIOGRAPHY

Dr. Laila Salman received the B.S. and M.S. degrees in electronics and communication engineering from Cairo University, Giza, Egypt, in 2003 and 2005, respectively, and the PhD. Degree in electromagnetic and antenna design from the University of Mississippi, MS, USA in 2009. She also worked as a post-doctoral student at the Université de Quebec en Outaouais, Gatineau, QC, Canada till 2010. Her research was on dielectric resonator antennas, wearable antennas, microwave and millimeter-wave circuits and systems, microwave imaging for early detection of breast cancer and scattering from left-handed metamaterials.

Dr. Salman joined Ansys Canada Ltd. in August 2010 as a Principal Application Engineer for High Frequency Electromagnetics. Her current expertise is mainly in high frequency RF microwave applications, antenna design, 5G & millimeter wave applications, Automotive Radar, and IoT Applications

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