Industry-Academic Forum on EMC 2020

Academic Participants and Contributions



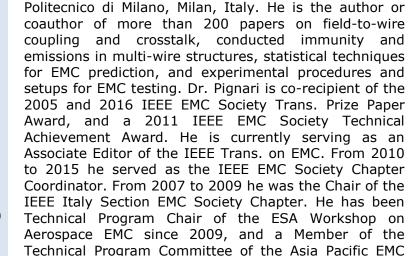
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Interference Effects in Complex Wiring Harnesses

Design of complex wiring harness still represents a challenge for EMC engineers since wiring structures are often the main receptors and radiators of interference.

This talk will show examples of analysis of complex wiring structures subjected to far- or near-field coupling with external sources. Modeling will be addressed firstly from the deterministic viewpoint, and then reconsidered from the statistical standpoint by introducing computationally efficiency prediction models accounting for random variations of the noise sources as well as the geometrical/electrical parameters of the wiring harness. Hybrid approaches combining transmission line theory and full-wave simulations will be presented as a trade-off between prediction accuracy and computational time. Also, examples experimental setups for prediction model validation will be illustrated and discussed.



Sergio A. Pignari is a Full Professor of Circuit Theory

Compatibility

(EMC)

Electromagnetic

Week since 2010.

