

Validation of Computational Electromagnetics

Prof. Alistair Duffy

Department of Engineering, De Montfort University, The Gateway, Leicester, UK

A main problem being addressed here is that, as EMC engineers, we have a sense when a result is good (or a comparison of results is good) irrespective of how visually complex those results actually are. Quantification is easy when the results have a simple structure using simple distance measures, correlations, etc. This task is not easy when we are faced with graphs with many peaks and troughs and differing mean amplitude level. Yes, we still have a “bye-eye” ability to label the graphs as “good” or “better than the last bunch” or “not good enough”. Over the years, research has focussed on trying to capture this human-centred approach in a simple computer-based approach. This lecture looks at the problem, how people actually look at these graphs, how we categorise “good” or “bad”, how this can be captured in a computer implementable method and what challenges this now poses.