



Advanced Measurement Techniques Adapted for Different Memory Effects Workshop

IMS 2009 and 73th ARFTG, spring 2009, Wednesday June 10 1:00 PM – 5:00 PM, BCEC Room 152

Co-sponsored by **MTT-11, MTT-1, IMS09, ARFTG09, IMS-S TC33**

Memory effects in transistors and amplifiers are troublemakers from the early days. The goal of this workshop is to give an overview of the present state-of-the-art characterization techniques in relation to the different types of memory effects that can occur within transistors and amplifiers. This workshop will provide you with an understanding of the different measurement setups that provide the necessary information to develop, for example, linearization techniques. The first talk focuses on the different memory effects for emerging wideband PA designs and clarifies the importance of an in-depth understanding. Related to these different types of memory effects, the other talks elaborate on the different state-of-the-art measurement techniques to properly characterize and quantify these effects, going from DC via small-signal measurements to large-signal measurements.

Organizers:

Dominique Schreurs, K.U.Leuven, Belgium; AdCom, TCC, MTT-11, IMS TPC.
Marc Vanden Bossche, NMDG, Belgium.

Speakers:

1. Nuno Borges Carvalho, IT, Portugal
“Importance of Memory Effects from a Designer Point of View”
2. Leo de Vreede, T.U.Delft, Netherlands
“Large-Signal Device Characterization for Wide-Band PA Applications”
3. Kristoffer Andersson, Chalmers University, Sweden
“Electrical Characterization of Self-Heating Effects”
4. Anthony Parker, Macquarie University, Australia
“Measurement and Modeling of FET/HEMT Trapping Dynamics”
5. Damien Ducatteau, IEMN, France
“Time Domain Analysis of Memory and Trapping Effects of AlInN/GaN HEMT Devices”