

# ARFTG Spring'04 Line-Up and Program Schedule

**8:00 – 8:15 AM Welcome and Introduction**

**8:15 – 9:45 AM - Power/Pulsed IV**

**“The Influence of Pulse Separation and Instrument Input Impedance on Pulsed IV Measurement Results”**

Charles Baylis, Lawrence Dunleavy, Peter Ladbrooke, James Bridge

**“Spectral-Null Pulse Waveform For Characterizing Gain and Phase Distortion in Devices with Uncorrelated Frequency Translation or Limited CW Power Capability”**

Ralph L. Brooker

**“Simultaneous Load-Pull and Real-Time Infrared Thermal Imaging Of RF/Microwave Power Transistors”**

John F. Sevic, Grant Albright, Werner Schuerch, Gary M. Simpson

**“On-Wafer I/V measurement setup for the characterization of low-frequency dispersion in electron devices”**

A. Raffo, A. Santarelli, P.A. Traverso, G. Vannini, F. Filicori

**9:45 – 10:30 AM Morning Break & Open Forum**

**10:30 AM – 12:00 NOON - General Measurement**

**“Comparing Internet-Enabled VNA Measurements with Primary National Standards”**

Andrew G. Morgan, Ian C. Instone, Nick M. Ridler and Richard P. Thompson

**“Base-Band Impedance Control and Calibration for On-Wafer Linearity Measurements”**

M.J. Pelk, L.C.N. de Vreede, M. Spirito and J.H. Jos

**“Amplifier Noise-Parameter Measurement Checks and Verification”**

J. Randa, D.K. Walker

**“A New Instrument Architecture for Millimetre-Wave Time-Domain Signal Analysis”**

Jonathan B Scott, Peter Blockley, and Anthony E Parker

**12:00 NOON – 1:30 PM - Lunch and Awards**

## **1:30 – 3:00 PM - VNA De-embedding Techniques**

### **“Simple PCB based S-parameter extraction method for RF amplifier circuits”**

S. C. Choi, J. E. Youm and S. W. Hwang

### **“Network Analyzer Measurement De-embedding Utilizing a Distributed Transmission Matrix Bisection of a Single THRU Structure”**

Erik S. Daniel, Nathan E. Hariff, Vladimir Sokolov, Shaun M. Schreider, Barry K. Gilbert

### **“A New On-Wafer De-Embedding Technique for On-Chip RF Transmission Line Interconnect Characterization”**

Youri Tretiakov, Jay Rascoe, Kunal Vaed, Wayne Woods, Sonal Venkatadri, Thomas Zwick

### **“The "Unknown Thru" Calibration Advantage”**

Ken Wong

## **3:00 – 3:45 PM - Afternoon Break & Open Forum**

## **3:45 – 5:00 PM - Calibration Techniques**

### **“Advanced Technique for Broadband On-Wafer RF Device Characterization”**

René F. Scholz, Falk Korndörfer, Biswanath Senapati, Andrej Rumiantsev

### **“Advanced On-Wafer Multiport Calibration Methods for Mono- and Mixed-Mode Device Characterization”**

Holger Heuermann, Andrej Rumiantsev, and Steffen Schott

### **“Novel Concept for a Dual On Wafer Probe Tip and Corresponding Calibration Techniques”**

Steffen Schott, Steffen Thies, Michael Wollitzer, Bernd Rosenberger

## **End of Presentation Papers**

## **Open Forum Papers:**

### **“Artificial Neural Network to Statistically Model the Variation in Small Signal Equivalent Circuit Model Parameters for a Si/SiGe HBT process”**

H. Taher, D. Schreurs, R. Gillon, E. Vestiel, A. Alabadelah, C. van Niekerk, and B. Nauwelaers

### **“A Mechanically Optimized Stable and Accurate On-Wafer Tuner Setup”**

Christos Tsironis, Vincent Ducamp, Vincent Mallette, Roman Meierer

### **“Characterization of dynamics in on-wafer RF MEMS variable capacitors using RF measurement techniques”**

David Girbua, Antonio Lázaro, Lluís Pradell

### **“Mismatch Errors in Microwave Power Measurement and Uncertainty Computation Based on the GUM Guidelines”**

Yeou-Song (Brian) Lee

### **“Extension of the Hammerstein Model for Power Amplifier Applications”**

Magnus Isaksson, David Wisell

### **“A 4-Term Reflectometer Error Model for Systems with Variable Coupling”**

J. Martens

### **“Participation in the RF & Microwave Measurement Program for Your Quality and Accreditation Needs”**

John Gregory Burns, Yeou-Song (Brian) Lee

### **“A First Step toward a Wave-Based 'Stochastic' Calibration for Multi-port Vectorial Network Analyzers.”**

Yves Rolain, Wendy van Moer and Don deGroot

### **Nonlinear Large-signal Scattering Parameters: Theory and Applications”**

Jeffrey A. Jargon, K.C. Gupta, and Donald C. DeGroot

### **“DUT Input Impedance Measured in an Automated Load-pull System”**

Michael Majerus

### **“Large-signal On-Wafer Characterization of RF Conduction Characteristics”**

P.H. Ladbroke, J.P. Bridge, N. Goodship

### **“A Method to Observe Mutual Fluctuations Between Carriers in Broadband Communication Systems”**

Ming Yan and Thomas Wong

### **“Theoretical Study of the Effects of the Parasitic Resistance, $R_D$ and $R_S$ , on the Voltage and Current Waveform in the Transmission Line Class E PA”**

J.R. Loo-Yau and J.A. Raynoso-Hernández

**“On-Wafer LRM Calibration Technique using a Non-Reflecting Lossy Line of Arbitrary Length”**

J.A. Raynoso-Hernández

**“Frequency-Dependent RLGC Extraction for a Pair of Coupled Transmission Lines Using Measured Four-Port S-Parameters”**

Dong-Ho Han, Joong-Ho Kim, Henning Braunsch, Thomas G. Ruttan

**“Precise High Frequency Measurement Method without Connectors for Small Diameter Coaxial Cable”**

Katsuya Kikuchi, Seiji Tanaka, Taiju Unno, Kazunori Watanabe, Shigehiro Matsuno, Hiroshi Nakagawa, Kazuhiko Tokoro, and Masahiro Aoyagi