

AACD 2014

XXIII Workshop on Advances in Analog Circuit and Design

IST – Lisbon (Portugal)

April, 8th - 10th, 2014

www.aacd.ws - www.it.pt/aacd2014

Final Program

April, 8th, 2014

8:30 **Registration**

8:50 **Welcome and opening**

Session I - High-Performance AD and DA Converters - Chairman: Pieter Harpe (Eindhoven Univ. of Tech. - The Netherlands)

9:00 **Joao Goes** (Univ. Nova de Lisbon - Portugal), "Techniques for Low-Power, High-Speed, High Effective-Resolution Pipeline ADCs in Deep Nanoscale CMOS"

9:45 **Bob Verbruggen** (imec - Belgium), "Digitally Assisted Analog to Digital Converters"

10:30 **Coffee break**

11:00 **Lukas Kull** (IBM Research - Zurich - Switzerland), "Energy-Efficient High-Speed SAR ADCs in CMOS"

11:45 **Maurits Ortmanns** (Univ. of Ulm - Germany), "Automated Design of High-Speed Continuous-Time Sigma-Delta Modulators employing Compensation and Correction of Non-Idealities"

12:30 **Lunch break**

14:00 **Pedro Figueiredo** (Synopsys - Portugal), "Recent Advances and Trends in High-Performance Embedded Data Converters"

14:45 **Joost Briaire** (IDT – Netherlands), "High-performance DACs: unifying 16-bit dynamic range with GS/s data-rates"

15:30 **Coffee break**

16:00 **Panel Discussion**

18:00 **Welcome reception**

April, 9th, 2014

Session II - IC Design in Scaled Technologies - Chairman: Andrea Baschirotto (Univ. Milan-Bicocca - Italy)

9:00 **Brent Beacham** (Synopsys - Canada), "Mixed-Signal IP Design Challenges in 20nm and Beyond"

9:45 **Marcello De Matteis** (Univ. Milan Bicocca - Italy) "Continuous-Time Analog Filter Design in CMOS Nanoscale Era "

10:30 **Coffee break**

11:00 **Patrick Quinn** (Xilinx - Ireland), "Silicon innovation exploiting Moore scaling and "More than Moore" technology"

11:45 **Francesco Svelto** (Univ. Pavia - Italy) "On the design of circuits for frequency synthesizers at mm-waves in ultra-scaled CMOS "

12:30 **Lunch break**

14:00 **M. Fulde** (Intel - Germany) "Digital Enhanced Transmitter Concepts for Nanometer-CMOS Technologies"

14:45 **R. Pelliconi** (S3 - Ireland) "Design of a DC/DC controller IP in 28nm"

15:30 **Coffee break**

16:00 **Panel Discussion**

19:30 **Social event: Gala dinner**

April, 10th, 2014

Session III - Time-Domain Signal Processing - Chairman: Kofi Makinwa (Delft Univ. of Tech. - The Netherlands)

8:30 **Shingo Mandai, Edoardo Charbon** (TU Delft - Netherlands), "High Speed Time-domain Imaging"

9:15 **Lukas Perktold, Jorgen Christiansen** (AMS - Austria, CERN - Switzerland), "High Resolution Time Measurements for High Energy Physics Experiments"

10:00 **Coffee break**

10:30 **Wanghua Wu, Bogdan Staszewski** (TU Delft - The Netherlands), "Time-Domain Techniques for mm-Wave Frequency Generation"

11:15 **Sachin Rao, Pavan Hanumolu** (Qualcomm – US, Oregon State Univ. - USA), "A Deterministic Background Calibration Technique for VCO-based ADCs"

12:00 **Lunch break**

13:30 **Jelle van Rethy, Georges Gielen** (KU Leuven - Belgium), "Towards energy-efficient CMOS integrated sensor-to-digital interface circuits"

14:15 **Benjamin Hershberg, Un-Ku Moon** (imec – Belgium, Oregon State Univ. - USA), "The Ring Amplifier: Scalable Amplification with Ring Oscillators"

15:00 **Panel Discussion**

AACD 2014 Organization

Scientific Committee:

Andrea Baschirotto - Univ. of Milan-Bicocca (Italy)

Kofi Makinwa - Univ. Delft (The Netherlands)

Pieter Harpe - Univ. Eindhoven (The Netherlands)

Organizing Committee:

Nuno Horta - Instituto Superior Tecnico (Lisbon)

Jorge Guilherme - Instituto Politecnico Tomar (Tomar)

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