

AACD 2023

AACD 2023

XXXI Workshop on Advances in Analogue Circuit and Design
Carinthia University of Applied Sciences (FH Karnten)
Villach (Austria)

April, 12 - 14, 2023

<https://www.mbtechnoservices.com/aacd23>



Final Program

April, 12, 2023

- 8.00 Registration
- 8.45 Opening Ceremony
- Imaging Sensors – Chairman: Kofi Makinwa (TU Delft, The Netherlands)**
- 9.00 M. Pertjjs, Y. Hopf, P. Guo (TU Delft, The Netherlands), "Pitch-Matched Integrated Circuits for Ultrasound Transducer Arrays"
- 9.45 F. Widdershoven (NXP Semiconductors, The Netherlands), "Pixelated Capacitive Sensors for Embedded Multi-Sensing"
- 10.30 Coffee Break
- 11.00 L. Gasparini (FBK, Italy), "Single-Photon Imagers for Time-Resolved Applications"
- 11.45 F. Michel, C. Andreou, M. Rigo (ams OSRAM, Switzerland), "Photon Counting CT Detectors for Medical Imaging"
- 12.30 Lunch Break
- 14.00 A. Faisal, F. Muhammad (Infineon Technologies, Austria), "High-Performance SiGe FMCW Radar Demonstrators at 120 GHz and 240 GHz"
- 14.45 V. Jagtap and U. Pfeiffer (University of Wuppertal, Germany), "Broadband Terahertz Light-Field Camera for Single-Shot 3D Imaging"
- 15.30 Coffee Break
- 16.00 Panel Discussion
- 19.30 Welcome Cocktail

April, 13, 2023

- Power Management – Chairman: Andrea Baschirotto (University of Milano-Bicocca, Italy)**
- 9.00 G. Frattini (Analog Devices, Italy), "Integrated Isolated Power Conversion: Challenges and Opportunities"
- 9.45 F. Pulvirenti (STMicroelectronics, Italy), "Design Solutions for Power Converters from System in Package to Monolithic GaN Technology"
- 10.30 Coffee Break
- 11.00 F. Rezzi (Inventum, Italy), "Comparison of Standard Switching-Inductor Converter with Hybrid Topologies"
- 11.45 F. Tavernier, T. Van Daele (KU Leuven, Belgium), "Design and Implementation of a HV DC-DC Converter for Large Conversion Steps in CMOS"
- 12.30 Lunch Break
- 14.00 N. Zilio (Infineon, Austria), "Design, Control, and Implementation of Fully-Monolithic Hybrid Power Converters"
- 14.45 J. Verner (Renesas, The Netherlands), "A SIMO Buck Converter for IoT Applications with < 1 μ A Quiescent Current"
- 15.30 Coffee Break
- 16.00 Panel Discussion
- 20.00 Gala Dinner

April, 14, 2023

- PLLs and Frequency Synthesizers – Chairman: Bram Nauta (University of Twente, The Netherlands)**
- 9.00 B. Staszewski (University of Dublin, Ireland), "Beyond All-Digital PLL for RF and Millimeter-Wave Frequency Synthesis"
- 9.45 X. Gao (Zhejiang University, China), "Low Jitter Fractional-N PLL with Phase Detection and Quantization Noise Cancellation"
- 10.30 Coffee Break
- 11.00 A. Mazzanti (University of Pavia, Italy), A. Franceschin (STMicroelectronics, Italy), D. Riccardi, (Infineon Technologies, Austria), "BiCMOS(Voltage-Controlled) Oscillators with Ultra-Low Phase Noise"
- 11.45 F. Brandonisio (Maxlinear, Austria), "Digital PLLs for WiFi: State-of-the-Art and Trends"
- 12.30 Lunch Break
- 14.00 D. Chermiak (Infineon Technologies, Austria), "Digitally-Intensive PLLs for mm-Wave FMCW Radars"
- 14.45 J. M. Velandia Torres (NXP Semiconductors, Austria), "Design and Implementation Challenges for PLLs in UWB Radios"
- 15.30 Panel Discussion

AACD 2023 Organization

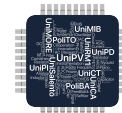
Scientific Committee

Andrea Baschirotto – University of Milan-Bicocca (Italy)
Kofi Makinwa – TU Delft (The Netherlands)
Bram Nauta – University of Twente (The Netherlands)

Organizing Committee

Christoph Sandner – Infineon Technologies (Austria)
Andrea Baschirotto – University of Milano-Bicocca (Italy)
Piero Malcovati – University of Pavia (Italy)

Local organizers



Italian National
Ph. D Program in
Micro- and Nano-
Electronics

Diamond Sponsors



Gold Sponsors

