

Conference Program

08:00 – 09:00 Coffee & Registration

09:00 – 09:15 Conference Opening

09:15 – 10:00 First Keynote-Address

René Scholz

IHP – Leibniz Institute for high performance Microelectronics, Im Technologiepark 25, 15236 Frankfurt (Oder), Germany

IHP OpenPDK and MPW:

Pushing Open-Source EDA tools to Analog and RF Design

10:00 – 10:45 Second Keynote-Address

Frank K. Gürkaynak

ETH Zürich, Institut für Integrierte Systeme, ETZ J 60.1, Gloriastrasse 35, 8092 Zürich, Switzerland

Open-source SoC design using PULP

10:45 – 11:00 Break

11:00 – 12:00 Paper Session I:

Session Chair: **TBA**, TBA

- Gain Expansion Generator based on a Reduced Conduction Angle for H-Band Applications
Thomas Ufschlag, Benjamin Schoch, Lukas Gebert, Dominik Wrana, Axel Tessmann and Ingmar Kallfass
University of Stuttgart (ILH), Fraunhofer Institute for Applied Solid State Physics IAF
- Greyhound: A Reconfigurable and Extensible RISC-V SoC and eFPGA on IHP SG13G2
Leo Moser, Meinhard Kissich, Tobias Scheipel and Marcel Baunach
Graz University of Technology
- Comparison of Low Power Digitally Controlled Ring Oscillator Architectures in 12 nm FinFET
Florian Schneider, Luca Avallone and Alicja Michalowska-Forsyth
Infineon Technologies Austria AG
Institute of Electronics (IFE), Graz University of Technology

12:00 – 12:30 Poster & Sponsor Pitch Session

12:30 – 14:00 Lunch

14:00 – 15:15 Paper Session II:

Session Chair: **TBA**, TBA

- A 150-GHz 9-dBm EIRP Open-Source FMCW Radar Chip in 130-nm BiCMOS
Ghaith Al Sabagh, Georg Zachl and Harald Pretl
Institute for Integrated Circuits and Quantum Computing, JKU Linz
- A CMOS Source-Coupled Relaxation Oscillator Achieving Close-in Phase Noise of -72.9 dBc/Hz at a 1 kHz Offset
Baset Mesgari, Saeed Saeedi, Reinhard Feger and Horst Zimmermann
Institute for Communications Engineering and RF-Systems, Johannes Kepler University Linz
Faculty of Electrical and Computer Engineering, Tarbiat Modares University
Christian Doppler Laboratory MWTH
Institute of Electrodynamics, Microwave and Circuit Technology, TU Wien

- A FR3, 25 dBm Unbalanced MMIC GaAs Doherty Power Amplifier with Auxiliary Gate Voltage Modulation for Linearity Improvement
Abdolhamid Noori, *Fatemeh Abbassi, Christoph Wagner, Christian Fager and Gregor Lasser*
Chalmers University of Technology, Silicon Austria Labs
- A 72.7-90.4 GHz VCO with a Stacked NMOS based Tuning Network in 28nm FDSOI
Waseem Abbas, *Samir Aziri and Christoph Wagner*
Silicon Austria Labs
- A D-Band Active Down-Conversion Mixer with 80 GHz IF for FMCW Radar Frequency Extension
Fatemeh Abbassi, *Samir Aziri, Waseem Abbas, Christoph Wagner and Timm Ostermann*
Silicon Austria Labs, Institute for Integrated Circuits and Quantum Computing, JKU Linz

15:15 – 15:30 Break

15:30 – 16:45 Paper Session III:

Session Chair: **TBA**, *TBA*

- Design Automation of a Digitally Controlled Ring Oscillator using CUAS Cell Creator Framework
Daniel Cerdà Holmager, *Santiago Martin Sondón, Violeta Petrescu, Wolfgang Scherr and Johannes Sturm*
Carinthia University of Applied Sciences in Austria, CUAS
- Event-Based ADCs vs. Nyquist ADCs: Rethinking Performance Metrics
Simon Dorrer, *Anna Werzi, Bernhard A. Moser, Michael Lunglmayr and Harald Pretl*
Institute for Integrated Circuits and Quantum Computing, JKU Linz
Institute of Signal Processing, JKU Linz
- Modeling Location-dependent Random Telegraph Noise for Circuit Simulators
Florian Berger, *Gerhard Landauer, Alicja Michalowska-Forsyth, Martin Flatscher, Philipp Greiner and Stefan Gansinger*
Institute for Electronics, Graz University of Technology
Power and Sensor Systems, Infineon Technologies
- An 8.1- μ W 12-bit Non-Binary Self-Clocked SAR-ADC in 130 nm Open-Source PDK
Ali Olyanasab, *Patrick Fath, Leonhard Schreiner, Christoph Guger and Harald Pretl*
g.tec medical engineering GmbH
Institute for Integrated Circuits and Quantum Computing, JKU Linz
- SPAD Active Quenching/Resetting Circuit in 0.35- μ m HV-CMOS Enabling 24V Excess Bias for PDP >90%
Sherwin Nasirifar, *Baset Mesgari, Christoph Ribisch, Saman Kohneh Poushi and Horst Zimmermann*
Institute of Electrodynamics, Microwave and Circuit Engineering, TU Wien
Institute for Communications Engineering and RF Systems, JKU Linz
Austrian Institute of Technology (AIT), Vienna
Silicon Austria Labs

16:45 – 17:00 Conference Closing, Best Paper Award & Outlook Austrochip 2026