

AACD 2024



# AACD 2024

XXXII Workshop on Advances in Analogue Circuit and Design  
University of Pavia  
Pavia (Italy)

April, 9 - 11, 2024

<https://www.mbtechnoservices.com/aacd24>



## Final Program

### April, 9, 2024

- 8.00 Registration
- 8.30 Opening Ceremony
- High-Performance Audio — Chairman: Bram Nauta (University of Twente, The Netherlands)**
- 9.00 Mikkel Høyerby (Consultant, Denmark), "20 Years of Fully Integrated Class-D Audio"
- 9.45 Pedro Amaral (Infineon, Austria), "High-Performance Capacitive MEMS-Based Microphones for Consumer Market Applications: Analog Design and System Considerations"
- 10.30 Coffee Break
- 11.00 Daniel Schinkel (Axign/Monolithic Power Systems, The Netherlands), "Mixed-Signal Amplifier Control"
- 11.45 Enrico Oberti (Inventum, Italy), "Ultra-Low Power Class-D Amplifiers for True Wireless Stereo (TWS) Applications"
- 12.30 Lunch Break
- 14.00 Huajun Zhang (TU Delft, The Netherlands), "Capacitively Coupled Class-D Audio Amplifiers"
- 14.45 Marco Berkhout (Goodix, The Netherlands), "Smart Speaker Drivers"
- 15.30 Coffee Break
- 16.00 Panel Discussion
- 19.00 Welcome Cocktail

### April, 10, 2024

- Biomedical and Wearable Applications — Chairman: Kofi Makinwa (TU Delft, The Netherlands)**
- 9.00 Giuseppe Bruno (STMicroelectronics, Italy), "Wearable Devices for Vital Sign Monitoring"
- 9.45 Yun-Shiang Shu (MediaTek, Taiwan), "Biopotential Sensing in Consumer Wearables with Dry Electrodes"
- 10.30 Coffee Break
- 11.00 Jiawei Xu (Fudan University, China), "Multimodal Analog Front-End Circuits for Wearable Healthcare"
- 11.45 Dante Muratore (TU Delft, The Netherlands), "Implantable Electronics for a High-Fidelity Artificial Retina"
- 12.30 Lunch Break
- 14.00 Nick van Helleputte (imec, Belgium), "Sensing Electro-Chemical Signals with CMOS"
- 14.45 Drew Hall (University of California at San Diego, USA), "CMOS Chips for Single-Molecule Biosensing"
- 15.30 Coffee Break
- 16.00 Panel Discussion
- 20.00 Gala Dinner

### April, 11, 2024

- High-Voltage Analog — Chairman: Andrea Baschiroto (University of Milano-Bicocca, Italy)**
- 9.00 Davide Giacomini (Infineon Technologies, Italy), "The Magic of High Voltage Technologies in the Development of Analog Integrated Circuits for Applications up to 1200 V"
- 9.45 Jef Thone (MindCet, Belgium), "Design Techniques for WBG Transistor Adoption in HV Power Conversion"
- 10.30 Coffee Break
- 11.00 Ruida Yun (Analog Devices, USA), "Introduction to High-Voltage Isolation Technology, from Process Development to Circuit Design"
- 11.45 Stefen Heinen (RWTH Aachen University, Germany), "Smart High-Voltage Integrated Circuits"
- 12.30 Lunch Break
- 14.00 Bernhard Wicht (Hannover University, Germany), "Chip-Scale High-Voltage Power Supplies"
- 14.45 Marco Grassi (University of Pavia, Italy), "High-Voltage SC DC-DC Converters for High-Efficiency at Light-Load Power Supplies"
- 15.30 Panel Discussion

## AACD 2024 Organization

### Scientific Committee

Andrea Baschiroto - University of Milano-Bicocca (Italy)  
Kofi Makinwa - TU Delft (The Netherlands)  
Bram Nauta - University of Twente (The Netherlands)

### Organizing Committee

Andrea Baschiroto - University of Milano-Bicocca (Italy)  
Piero Malcovati - University of Pavia (Italy)

### Local organizers



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