

SMACD 22

12-16 JUNE 2022 • VILLASIMIUS • SARDINIA • ITALY



PRELIMINARY CALL FOR PAPERS

The 2022 edition of the **International Conference on Synthesis, Modeling, Analysis and Simulation Methods, and Applications to Circuit Design** (SMACD) will be held in Villasimius, Sardinia, Italy. SMACD is a forum devoted to modeling, simulation, and synthesis for Analog, Mixed-signal, RF (AMS/RF), and multi-domain (nanoelectronics, biological, MEMS, optoelectronics, etc.) integrated circuits and systems. Open-source tools and methods for AMS/RF and multi-domain IC design and experiences with modeling, simulation, and synthesis techniques in diverse application areas are also welcomed. Objective technologies include CMOS, beyond CMOS, and More-than-Moore such as MEMs, power devices, sensors, passives, etc.

AREAS OF INTEREST

Modeling

- Compact modeling
- Performance and behavioral modeling
- Power and thermal modeling
- Reliability and variability modeling
- Multi-domain modeling (fluidic, bio, chemical, optical, mechanical)
- EMC & analog signal integrity
- RF/microwave/mm-wave modeling
- Linear and non-linear model order reduction
- Circuit & system theory and application
- Automated model generation

Simulation, Verification and Test

- Behavioral simulation
- Numerical and symbolic simulation methods
- Simulation and estimation methods of variability and yield
- Analysis of reliability effects (aging, electromigration, stress, faults,...)
- High-frequency simulation techniques
- Multilevel simulation techniques
- Multi-domain simulation
- Functional safety

Synthesis

- Multilevel design methodologies
- Synthesis methods of multi-domain circuit and systems
- Physical synthesis
- High-frequency circuit and system design
- Low-power and energy-aware design techniques
- Parasitic-aware synthesis
- Variability-aware & reliability-aware design
- Performance monitors & self-healing techniques
- Test and design-for-test methods
- Optimization methods applied to circuit and system design
- Procedural design automation

Applications of Modeling, Simulation and Synthesis in

- Automotive
- Bio-electronics
- Security
- Internet-of-things
- Communications
- Renewable systems
- Energy management
- Engineering education

CONFERENCE VENUE

SMACD 2022 will be hosted at Tanka Village in Villasimius, Sardinia, Italy in person, provided that Covid 19 pandemic situation allows it.

IMPORTANT DATES

18th Feb. 2022 Paper Submission Deadline

1st April 2022 Author Notification

29th April 2022 Camera Ready Paper Submission

COMPANY FAIR

The **SMACD and PRIME Company Fair** will be held at the conference venue to allow academia **researchers** and Ph.D. **students**, attending to both conferences in the areas of IC Design and Electronic Design Automation, to get in contact with **industries** and other **research** institutions (and vice-versa) to promote **networking** and identify future **opportunities** and **collaborations**.

EDA COMPETITION

As usual in SMACD Conferences, the 2022 edition will also hold a **thrilling** and **dynamic** event where MSc and PhD students can **compete** with their **best ideas**, methodologies, flows and tools with one unique yet **challenging** goal:

"To improve design automation for integrated circuits and systems!!"

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