



## 2025 Program-at-a-Glance

Boston, Massachusetts, USA

Sunday, 13 April 2025

*\*All Sunday sessions are included with conference registration\**

<i>Olympia</i>	<i>Michelangelo</i>	<i>Aquitania</i>	<i>Brittannic</i>	<i>Grand Ballroom</i>
9:00 am-4:45 pm (12:15 pm-1:30 pm break) <b>Educational Session 1:</b> Mastering LLMs: A Deep Dive into Software Models, Hardware Challenges, Security and Reliability	9:00 am-4:45 pm (12:15 pm-1:30 pm break) <b>Educational Session 2:</b> High Precision Converters and Digital Calibration Techniques	9:00 am-4:45 pm (12:15 pm-1:30 pm break) <b>Educational Session 3:</b> Security or Privacy From Hardware to Systems	<b>Educational Session 4:</b> Advanced Biomedical Interfaces 9:00 am-4:45 pm (12:15 pm-3:15 pm break)	<b>Circuits Insights</b> *For Senior undergraduate & Starting Graduate Students – <a href="#">Pre-registration required</a> 9:15 am-4:45 pm
5:00 pm-6:30 pm <b>SSCS Bingo Networking Night</b> <i>Skyline Ballroom</i>				
<b>Monday, 14 April 2025</b>				
8:30 am-8:50 am <b>Welcome and Opening Remarks</b> <i>Grand Ballroom</i>				
8:50 am-9:40 am <b>Session 1:</b> Keynote Session <i>Grand Ballroom</i>				
9:40 am-10:05 am <b>BREAK</b> <i>Grand Ballroom Foyer</i>				
<i>Grand Ballroom</i>	<i>Olympia</i>	<i>Michelangelo</i>	<i>Aquitania</i>	<i>Brittannic</i>
10:05 am-12:10 pm <b>Session 2:</b> Analog Building Blocks and Sensing Circuits	10:05 am-11:45 am <b>Session 3:</b> Voltage Controlled Oscillators and Power Amplifiers	10:05 am-11:45 am <b>Session 4:</b> SC-based Power Conversion	10:05 am-12:10 pm <b>Session 5:</b> Incremental ADCs	10:05 am-12:05 pm <b>Session 6:</b> Forum: Hardware and Architectural Strategies for Building Cutting-edge AI Platforms
12:00 pm-1:30 pm <b>LUNCH BREAK (on own)</b>				
1:30 pm-3:00 pm <b>Session 7:</b> Panel: Do we really need a linear-gain amplifier anymore?	1:30 pm-3:10 pm <b>Session 8:</b> Advancements in Low-Power Wireless Technologies	1:30 pm-3:10 pm <b>Session 9:</b> Power Converter Techniques	1:30 pm-3:10 pm <b>Session 10:</b> Emerging Paradigms for AI, HPC, and Edge Computation	1:30 pm-3:10 pm <b>Session 11:</b> ASIC and Accelerators
3:10 pm-3:35 pm <b>BREAK</b> <i>Grand Ballroom Foyer</i>				
3:35 pm-5:15 pm <b>Session 12:</b> Advancements in Low-Power, High-Performance Analog Sensing and Interface Technologies	3:35 pm-5:40 pm <b>Session 13:</b> High-Speed Nyquist ADCs	3:35 pm-5:15 pm <b>Session 9 (cont'd):</b> Power Converter Techniques	3:35 pm-5:15 pm <b>Session 10 (cont'd):</b> Emerging Paradigms for AI, HPC, and Edge Computation	3:10 pm-5:40 pm <b>Session 11 (cont'd):</b> ASIC and Accelerators
5:30 pm-7:30 pm <b>Welcome Reception &amp; Best Paper Candidate Poster Session</b> <i>Skyline Ballroom</i>				



## 2025 Program-at-a-Glance

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<b>Tuesday, 15 April 2025</b>				
<b>Grand Ballroom</b>	<b>Olympia</b>	<b>Michelangelo</b>	<b>Aquitania</b>	<b>Brittannic</b>
8:00 am-9:40 am <b>Session 14:</b> Innovations in High-Performance Analog and Mixed-Signal Circuit Design	8:00 am-9:30 am <b>Session 15:</b> Panel: mmWave/THz Design: A New Paradigm or a Repeat of History with Faster Transistors?	8:00 am-9:40 am <b>Session 16:</b> Application-Specific Power Management	8:00 am-9:40 am <b>Session 17:</b> Next-Generation Systems: From Datacenters to the Edge	8:00 am-9:40 am <b>Session 18:</b> Digital Compute-in-Memory
<b>9:40 am-10:05 am BREAK</b> <i>Grand Ballroom Foyer</i>				
10:05 am-12:05 pm <b>Session 19:</b> Forum: Potential of Open Source Design for Analog/Mixed Signal IC Education	10:05 am-11:35 am <b>Session 20:</b> Panel: Wireline and Lightwave Interconnects - The Shifting Boundary in the AI Era	10:05 am-11:45 am <b>Session 16 (cont'd):</b> Application-Specific Power Management		10:05 am-11:45 am <b>Session 18 (cont'd):</b> Digital Compute-in-Memory
12:00 pm-1:30 pm <b>Session 21:</b> Keynote Luncheon Session <small>(Registration required)</small> <i>Skyline Ballroom</i>				
1:30 pm-5:15 pm <b>Session 22:</b> High Performance Transceivers	1:30 pm-3:10 pm <b>Session 23:</b> Cryogenic and Silicon Photonic ICs	1:30 pm-3:10 pm <b>Session 24:</b> Hybrid DC-DC Converters	1:30 pm-3:10 pm <b>Session 25:</b> High-speed Wireline and Optical Communication	1:30 pm-3:10 pm <b>Session 26:</b> Advanced Biopotential Interfaces
<b>3:10 pm-3:35 pm BREAK</b> <i>Grand Ballroom Foyer</i>				
3:35 pm-5:15 pm <b>Session 22 (cont'd):</b> High Performance Transceivers	3:35 pm-5:35 pm <b>Session 27:</b> Probabilistic Computing	3:35 pm-5:15 pm <b>Session 24 (cont'd):</b> Hybrid DC-DC Converters	3:35 pm-5:15 pm <b>Session 25 (cont'd):</b> High-speed Wireline and Optical Communication	3:35 pm-5:15 pm <b>Session 26 (cont'd):</b> Advanced Biopotential Interfaces
5:30 pm-6:30 pm <b>IEEE SSCS Young Professionals and Women in Circuits Mentoring Event</b> <i>Michelangelo</i>				
6:00 pm-8:00 pm <b>CICC Conference Reception &amp; Industry Information Session</b> <i>Skyline Ballroom</i>				



## 2025 Program-at-a-Glance

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**Wednesday, 16 April 2025**

8:30 am-9:40 am Keynote Session <i>Grand Ballroom</i>				
9:40 am-10:05 am BREAK <i>Grand Ballroom Foyer</i>				
<b>Grand Ballroom</b>	<b>Olympia</b>	<b>Michelangelo</b>	<b>Aquitania</b>	<b>Brittannic</b>
10:05 am-12:10 pm <b>Session 28:</b> Next-Generation Systems: Hardware for Quantum and Secure Computing	10:05 am-12:05 pm <b>Session 29:</b> Forum: Emerging Techniques for Phase Locked Loops	10:05 am-12:10 pm <b>Session 30:</b> Continuous-Time ADCs	10:05 am-11:45 am <b>Session 31:</b> Energy Efficient Wireline Interconnects	10:05 am-12:05 pm <b>Session 32:</b> Panel: The Impact of AI: A Job Creator or Destroyer?
12:00 pm- 1:30 pm LUNCH BREAK (on own)				
1:30 pm-3:10 pm <b>Session 33:</b> Advancing System Designs with Chiplet Technology (CICC/CHISIC)	1:30 pm-3:10 pm <b>Session 34:</b> Design Techniques for RF/mmWave CMOS Phased-Locked Loops	1:30 pm-3:10 pm <b>Session 35:</b> High-Resolution and Noise-Shaping ADCs	1:30 pm-3:10 pm <b>Session 36:</b> Communication Computing and Sensing Techniques in Biomedical Systems	1:30 pm-3:10 pm <b>Session 37:</b> Machine Learning and Energy Efficient SoCs
3:10 pm-3:35 pm BREAK <i>Grand Ballroom Foyer</i>				
3:35 pm-5:15 pm <b>Session 33 (cont'd):</b> Advancing System Designs with Chiplet Technology (CICC/CHISIC)	3:35 pm-4:50 pm <b>Session 34 (cont'd):</b> Design Techniques for RF/mmWave CMOS Phased-Locked Loops	3:35 pm-5:15 pm <b>Session 35 (cont'd):</b> High-Resolution and Noise-Shaping ADCs	3:35 pm-4:50 pm <b>Session 36 (cont'd):</b> Communication Computing and Sensing Techniques in Biomedical Systems	3:35 pm-5:40 pm <b>Session 37 (cont'd):</b> Machine Learning and Energy Efficient SoCs
5:30 pm-6:16 pm <b>CHISIC Keynote 1:</b> Chip to Chip Communication for Next Generation AI Datacenters <i>*CHISIC WORKSHOP REGISTRANTS ONLY</i> <i>Grand Ballroom</i>				
6:15 pm-8:15 pm <b>CHISIC Networking Reception</b> <i>*CHISIC WORKSHOP REGISTRANTS ONLY</i> <i>Skyline Ballroom</i>				



**2025 Program-at-a-Glance**  
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*The below sessions are open to CHISIC Workshop registrants only.*

*To attend these sessions, please add the CHISIC Workshop item to your registration.*

**Thursday, 17 April 2025**

7:00 am-8:00 am

**Breakfast (provided)**

*Skyline Ballroom*

8:00 am-10:05 am

**CHISIC Workshop**

*Grand Ballroom*

10:05 am-10:20 am

**Break**

*Grand Ballroom Foyer*

10:20 am-12:20 pm

**CHISIC Workshop**

*Grand Ballroom*

12:20 pm-12:25 pm

**Group Pictures**

*Skyline Ballroom*

12:25 pm-1:25 pm

**Lunch Break (provided)**

*Skyline Ballroom*

1:25 pm-3:25 pm

**CHISIC Workshop**

*Grand Ballroom*

Break

**3:25 pm-3:40 pm**

*Grand Ballroom Foyer*

3:40 pm-5:00 pm

**CHISIC Workshop**

*Grand Ballroom*

5:00 pm-5:05 pm

**CHISIC Workshop - Closing Ceremony**

*Grand Ballroom*