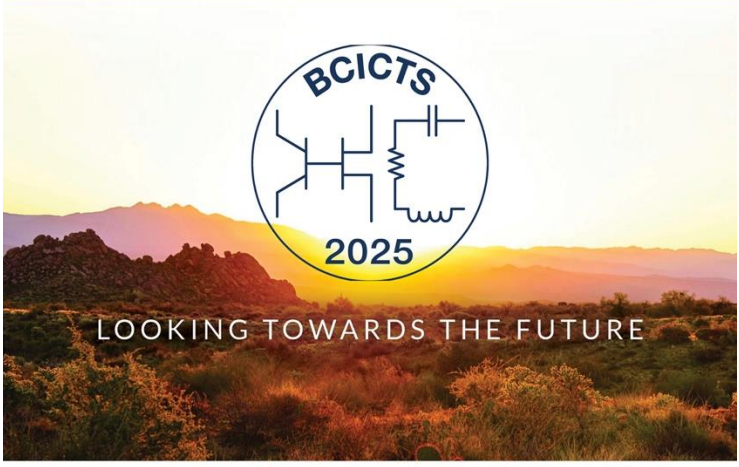
CONFERENCE PROGRAM



BCICTS 2025
IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technology Symposium

October 12-15, 2025
Scottsdale, AZ USA

Sponsored by
The Electron Devices Society of The Institute of Electrical and Electronic Engineers

In Cooperation with
The IEEE Solid - State Circuits Society and The IEEE Microwave Theory & Technology Society

IEEE
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CONFERENCE WEBSITE
www.bcicts.org

WELCOME FROM THE BCICTS 2025 CHAIRS

With great pleasure, we invite you to participate in the 2025 IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technology Symposium (BCICTS). The eighth meeting of this in person symposium will be held Sunday October 12th to Wednesday October 15th at the Hilton Scottsdale in Scottsdale, Arizona, USA. BCICTS provides a great opportunity for the engineering and technical community to reconnect with each other both professionally and personally, to meet new colleagues and visit with long-time friends, while catching up on the latest trends within microelectronics.

This year, BCICTS will continue the long history of international symposiums where distinguished experts present their latest results in bipolar, Si/SiGe BiCMOS, and compound semiconductor circuits, devices, and technology. There are no other events in the world where you can see leading edge bipolar/BiCMOS devices and technology, 5G/6G ICs, GaN HPAs, InP THz PAs, optical CMOS/SiGe transceivers, GaN HEMT power devices, advances in modeling and simulations and device physics, all presented together.

This eighth BCICTS includes presentations from worldwide submissions on all aspects of semiconductor technologies. Topics span process technology, device advances, TCAD modeling, compact modeling to IC design and testing, high-volume manufacturing, and system applications. BCICTS will also feature the very latest results in RF/microwave, millimeter-wave, THz, analog & mixed signal, and optoelectronic integrated circuits.

BCICTS will offer a topical short course and a more basic primer course on October 12th. Both will be taught by leading experts, with the short course intended for professionals seeking comprehensive understanding of the latest industry trends and techniques, and the primer as an introductory tutorial. Specific course details will be announced soon. New this year, the primer course and short course will not overlap, allowing conference registrants to attend both the primer course and short course.

We would like to thank the many dedicated volunteers on the BCICTS Technical Program Committee, and the generous support of the IEEE Electron Devices, Microwave Theory and Technology, and Solid- State Circuits Societies. Finally, we look forward to interacting with all participants to continue the traditions of technical excellence for BCICTS!

Michael Roberg
Qorvo, Inc.
Symposium Chair

Tomislav Suligoj
University of Zagreb
Symposium Co-Chair

KEY EVENT INFORMATION

Meeting Locations:
*Registration is required for attendance

- Registration: Salon 1 Foyer
- **Sunday:** Short course, Sonora A&B
- **Sunday:** Primer, Sonora A&B
- **Monday - Wednesday:**
- **General Session:** Ballroom Salon I & II
- **Session A: Salon** I
- **Session B: Salon** II
- **Exhibition:** Ballroom III & IV
- **Attendee Lounge & Speaker Ready Room:** Sonora D-3

Conference Networking & Social Events:
Several networking events have been arranged to promote informal social interactions among conference participants. Event details are listed below for your reference:

Monday, October 12: **Exhibitor Reception**
from 5:30 PM - 7:30 PM
Location: Ballroom III & IV

Tuesday, October 13:

- **Exhibitor Breakfast:** 7:30 AM - 8:30 AM
- **Exhibitor Luncheon:** 12:30 PM - 2:00 PM

Location: Ballroom III & IV

Wednesday, October 14:

- **Closing Reception:** Ballroom III & IV

Registration Desk Hours:
Sunday - Tuesday: 7:30 AM - 5:00 PM
Wednesday: 7:30 AM - 3:30 PM

We're looking forward to seeing you in Scottsdale, Arizona!

If you have any questions, please feel free to contact Catherine Shaw:

Catherine Shaw, CMP
Executive Director, Meetings and Events (BCICTS)
Phone: 732-501-3334
E-mail: cs@cshawevents.com

2025 BCICTS SCHEDULE AT A GLANCE

SUNDAY – OCTOBER 12	
SHORT COURSE 6G Communication Systems: D-band Design Challenges and Opportunities **Sonora A&B**	
8:00 AM 8:45 AM	Registration for Short Course Only **Salon 1 Foyer**
8:00 AM 8:45 AM	Breakfast for Short Course Only
8:45 AM 9:00 AM	Welcome & Speaker Introduction, Doug Weiser, Texas Instruments **Sonora A&B**
9:00 AM 10:00 AM	InP Integrated Circuit Technologies for >100 GHz Phased Array Frontends **Sonora A&B**
10:00 AM 10:15 AM	Coffee Break for Short Course Only
10:15 AM 11:15 AM	Sub-THz Transceiver Design Techniques for 6G Communication Systems **Sonora A&B**
11:15 PM 12:15 PM	Building D-band Communications Systems: From the Near-field to Space **Sonora A&B**
12:15 PM 12:30 PM	Adjourn and Feedback **Sonora A&B**
PRIMER Design of RF/mm-wave Frequency Converters **Sonora A&B**	
8:45 AM 1:30 PM	Registration for Primer Course Only Salon 1 Foyer
1:40 PM 1:50 PM	Welcome & Speaker Introduction, Micheal Schroter – TU Dresden **Sonora A&B**
1:50 PM 3:40 PM	Primer Lecture - Part 1, Jeff Walling, Virginia Tech. Design of RF/mm-wave Frequency Converters **Sonora A&B**
3:40 PM 3:50 PM	Coffee Break for Premier Only
3:50 PM 5:20 PM	Primer Lecture - Part 2, Jeff Walling, Virginia Tech. Design of RF/mm-wave Frequency Converters **Sonora A&B**
5:20 PM 5:30 PM	Questions and adjourn

2025 BCICTS SCHEDULE AT A GLANCE

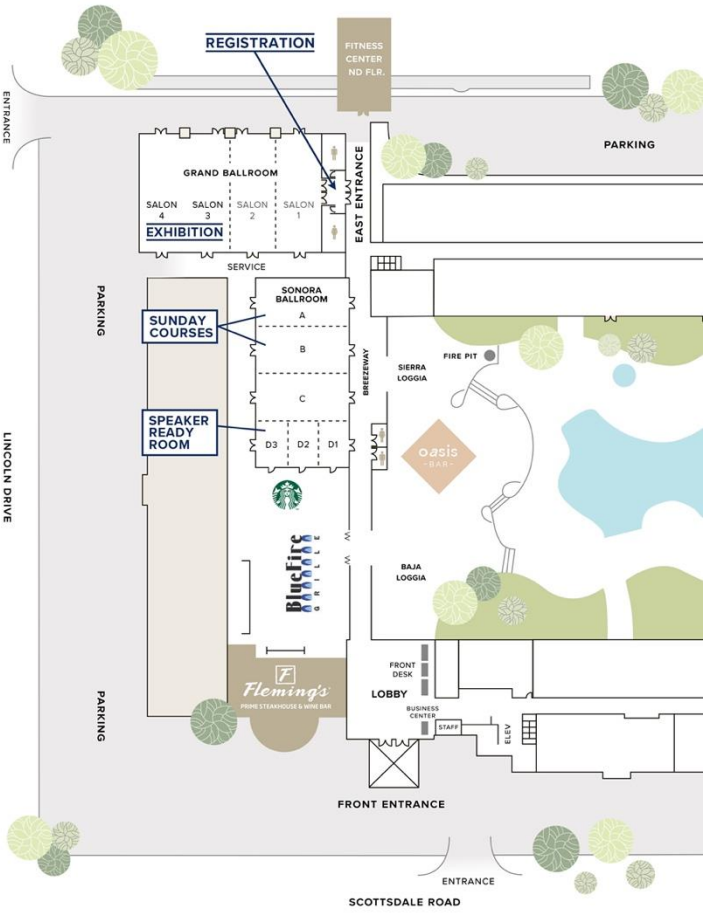
MONDAY – OCTOBER 13		
9:00 AM	Registration/Continental Breakfast Salon **1 FOYER**	
10:00 AM 10:30 AM	Welcome and Announcements Salon **I & II**	
10:30 AM 11:30 AM	Plenary Session **SALON I & II**	
11:30 AM 1:00 PM	Lunch **Self-Arrangement**	
1:00 PM 3:00 PM	1a. Advanced Devices & Technologies **Salon I**	1b. Next Generation mmW and Sub-Terahertz Communications **Salon II**
3:00 PM 3:30 PM	Sponsored Coffee Break - Qorvo	
3:30 PM 5:10 PM	2a. 3DIC Heterogeneous integration and thermal modeling **Salon I**	2a. Analog ICs **Salon II**
5:30 PM 7:30 PM	Exhibition Reception **Ballroom III & IV**	

TUESDAY – OCTOBER 14		
7:30 AM 5:00 PM	Registration **S 1 FOYER**	
7:30 AM 8:30 AM	Breakfast & Exhibition **Ballroom III & IV**	
8:30 AM 2:30 PM	Exhibition **Ballroom III & IV**	
8:30 AM 10:10 AM	3a. Advanced Next Gen Si RF technologies **Salon I**	3b. High-Performance Circuits for Optical Communications **Salon II**
10:10 AM 10:40 AM	Coffee Break	
10:40 AM 12:20 PM	4a. Device physics, reliability, TCAD and ML **Salon I**	4b. III-V Modeling, MMICs, and Packaging **Salon II**
12:30 PM 2:00 PM	Exhibition Lunch **Ballroom III & IV**	
2:00 PM 3:40 PM	5a. Electro-thermal GaN modeling and characterization **Salon I**	5b. Integrated Wireless Subsystem Technology **Salon II**
3:40 PM 4:10 PM	Coffee Break	
4:10PM 5:50PM	6a. Open source tools for PDK and advanced modeling in SiGe devices **Salon I**	6b. Silicon-based Circuit Design and Analysis **Salon II**

2025 BCICTS SCHEDULE AT A GLANCE

WEDNESDAY – OCTOBER 15		
7:30AM 3:30PM	Registration **SALON 1 FOYER**	
8:30AM 9:50AM	7a. Modeling of trapping effects in GaN devices **Salon I**	7b. mmW Metrology & Power Amplifier Technology **Salon II**
9:50AM 10:20AM	Sponsored Coffee Break – Presidio	
10:20AM 12:00AM		8b. High Frequency Power Amplifier Techniques **Salon II**
12:00PM 1:30PM	Lunch **Self-Arrangement**	
1:30PM 2:50PM	9. Late News **Salon I & II**	
2:50PM 3:20PM	Closing Session **Salon I & II**	
3:20PM 4:00PM	Closing Reception – Sponsored by GlobalFoundries **Ballroom III & IV**	

Hilton
SCOTTSDALE RESORT & VILLAS



ADDITIONAL INFORMATION

REGISTRATION Complete registration information is contained in the centerfold of this booklet as well as on the conference's web page (https://bcicts.org) Please use the website to register. The advanced registration deadline is **September 10**. All conference activities are included in the registration fees (technical sessions, coffee breaks, Monday exhibition reception, Tuesday exhibition breakfast and Wednesday lunch

CONFERENCE SOCIAL EVENTS Several events have been arranged to promote informal social interactions among conference participants.

TUTORIAL / SURVEY TALKS Tutorial talks given by invited experts are intended to give a broad overview of a given subject with a critical review of technology and applications. They are twice the length of the usual contributed talk with longer abstracts in the Proceedings.

MEMBERS OF THE PRESS: You are welcome to attend BCICTS. Admission is free. Please email Catherine Shaw, CMP, Executive Conference Director at: cs@cshawevents.com for pre-registration and approval by our Executive Committee.

RECRUITING: intensive recruitment undermines the purposes for which the BCICTS was established and is contrary to IEEE policy.

BEST STUDENT PAPER AND BEST PAPER AWARDS BCICTS offers a Best Paper Award. The BCICTS Best Paper Award recognizes and promotes high quality contributions to scholarly research among professionals who author and present papers at the conference. All papers submitted in non-student category are eligible for consideration for the Best Paper Award.

The BCICTS Best Student Paper Award recognizes and promotes outstanding research led by students. The Best Student Paper Award the following criteria: 1) the student must have carried out a substantial part of the research reported in the paper, 2) the student must be the first author and must present the paper at the conference, 3) the paper must be identified as a student paper during submission of the paper.

Eligible papers have been evaluated by the Best Paper Award Committee and the notifications will be sent out after the conference.

OUR SPONSORS

BCICTS is sponsored by the IEEE Electron Devices Society (EDS) in co - operation with the IEEE Solid - State Circuits Society (SSCS) and the IEEE Microwave Theory & Technology Society (MTT).

MEETINGS & SESSIONS SCHEDULE DETAILS

SUNDAY

BCICTS 2025 SHORT COURSE
SONORA A&B

Topic: 6G Communication Systems: D-band Design Challenges and Opportunities

Speakers:

- Dr. Miguel Urteaga, Teledyne Scientific Company
- Professor Wooram Lee, Pennsylvania State University
- Dr. Josep Jornet, Northeastern University

8:00 – 8:45 AM **Breakfast (Short Course Only)**

8:45 – 9:00 AM **Welcome**
Doug Weiser, Texas Instruments

9:00 – 10:00 AM **InP Integrated Circuit Technologies for >100 GHz Phased Array Frontends**
Instructor: Dr. Miguel Urteaga, Teledyne Scientific Company

Abstract: InP integrated circuit technologies with THz-class device bandwidths boast superior performance for frontend circuit blocks operating at >100 GHz. From 140-300 GHz, InP HEMT technologies have demonstrated the lowest noise figure low noise amplifiers (LNAs) and InP HBT technologies have demonstrated the highest output power and power added efficiency for power amplifiers (PAs). Utilizing InP frontend circuit blocks in future sub-THz phased array systems will require low-loss heterogeneous integration techniques with Silicon beamformer electronics. This talk will present technology considerations for high-performance InP HBTs and review device and MMIC performance. Recent developments to improve back-end-of-line and integration technologies of InP MMICs for future phased array systems will also be discussed.

Miguel Urteaga (Fellow IEEE) received his M.S. and Ph.D. degrees in Electrical Engineering from the University of California Santa Barbara in 2001 and 2003, respectively. He is currently the director of Foundry Products and Services for Teledyne Scientific Company and manages the advanced device development group. His research is focused on the development of ultra-high speed transistor technologies, primarily in the InP material system. He has led the development of Teledyne's high performance InP HBT IC technologies. These technologies have been used to demonstrate state-of-the-art integrated circuits ranging from high-speed mixed-signal and digital ICs to mm-wave and THz monolithic integrated circuits. He served as the program manager at Teledyne for the DARPA THz Electronics, Diverse Accessible Heterogeneous Integration (DAHI), Dynamic Range-enhanced Electronics Materials (DREAM) and Electronics for G-band Arrays (ELGAR) programs. programs. He has authored or co-authored over 200 conference and journal publications.

10:00 – 10:15 AM **Coffee Break**

10:15 – 11:15 AM Sub-THz Transceiver Design Techniques for 6G Communication Systems
Instructor: Professor Wooram Lee, The Pennsylvania State University

Abstract: The growing demand for wireless network capacity beyond 5G has driven interest in the wide bandwidth available in the sub-THz spectrum. However, the severe path loss at these high frequencies necessitates the use of large-scale phased array transceivers. Designing such systems presents fundamental challenges, particularly due to the limited antenna-in-package (AiP) area available per antenna element at sub-THz frequencies, which complicates integration and thermal management. Additionally, as operating frequencies approach the fmax of silicon transistors, the available gain and output power per transistor become limited. This short course will present design principles and techniques for building sub-THz front-end amplifiers and phase shifters to address these challenges.

Wooram Lee is an Associate Professor in the Department of Electrical Engineering at Penn State University. He received his B.Sc. and M.S. degrees in electrical engineering from the Korea Advanced Institute of Science and Technology (KAIST) in 2001 and 2003, and his Ph.D. degree at Cornell University in 2012. He was a Research Staff Member at the IBM T. J. Watson Research Center from 2015 to 2020, an Adjunct Assistant Professor at Columbia University from 2017 to 2020, a Senior Scientist at Broadcom from 2012 to 2015, and a Research Engineer at the Electronics and Telecommunications Research Institute (ETRI), Korea from 2003 to 2007. Prof. Lee serves as an Associate Editor for the IEEE Transactions on Microwave Theory and Techniques, a Guest Editor for the IEEE Journal of Solid-State Circuits, a member of the Technical Program Committee of the IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technology Symposium (BCICTS) and International Microwave Symposium (IMS), and IEEE Microwave Theory and Technology Society Technical Committee on Microwave/Millimeter-wave Radar, Sensing, and Array Systems (TC-24). He received the Best Student Paper Award (as a faculty advisor in 2023), and Best Industry Paper Award (in 2019) from IEEE Radio-Frequency Integrated Circuits (RFIC) Symposium, 2022 Asia-Pacific Microwave Conference (APMC) Prize (as a co-recipient), the IEEE Solid-State Circuits Predoctoral Fellowship (the sole winner) for 2010-2011 and the Samsung Graduate Fellowship for 2007-2012. He received the Best Paper Award of the IEEE Radar Conference in 2009.

11:15 – 12:15 PM Building D-band Communications Systems: From the Near-field to Space
Instructor: Dr. Josep Jornet, Northeastern University

Abstract: This talk will follow a bottom-up approach to highlight innovative solutions and open challenges for terahertz communications and sensing systems on the ground, in the air, and space. Specific topics include ultrabroadband waveforms designs that can not only overcome but leverage molecular absorption; innovative wavefronts for near-field THz links including self-healing Bessel and curving Airy beams, and early hints to design a protocol stack for ultrabroadband ultradirectional networks. In addition, the advantageous role of THz frequencies in satellite communication networks will be discussed, highlighting their potential for high-speed access links, and the upcoming, first-of-its-kind, TeraLink experimental mission.

Josep Miquel Jornet is Professor of Electrical and Computer Engineering at Northeastern University (NU), the Associate Dean of Research of the College of Engineering (COE), the

Associate Director of the Institute for the Wireless Internet of Things (WIoT), and the Director of the Ultrabroadband Nanonetworking (UN) Laboratory. He received his Ph.D. in Electrical and Computer Engineering from the Georgia Institute of Technology, Atlanta, GA, in August 2013. His research interests are in terahertz communication networks, wireless nano-bio-communication networks, and the Internet of Nano-Things. He has co-authored more than 300 peer-reviewed scientific publications in these areas, including one book and five US patents. His work has received over 20,000 citations (h-index of 65 as of June 2025). He is serving as the lead PI on multiple grants from U.S. federal agencies, including the National Science Foundation, the Air Force Office of Scientific Research, and the Air Force Research Laboratory, and industry. He is the recipient of multiple awards, including the NSF CAREER Award in 2019, the 2022 IEEE ComSoc RCC Early Achievement Award, and the 2022 IEEE Wireless Communications Technical Committee Outstanding Young Researcher Award, among others, as well as eight best paper awards. He is a Fellow of the IEEE (Class of 2024) and served as an IEEE ComSoc Distinguished Lecturer (Class of 2022-2024). He is also the editor-in-chief of the Elsevier Nano Communication Networks journal and Editor for IEEE Transactions on Communications, IEEE Transactions on Molecular, Biological and Multi-scale Communications, and Nature Scientific Reports.

12:15 – 12:30 PM Adjourn and feedback

BCICTS 2025 PRIMER
SONORA A & B

Time: 12:30 PM – 5:30 PM
Topic: Design of RF/mm-wave Frequency Converters
Instructor*:* Jeff Walling, Associate Professor, Virginia Tech.

12:30 – 1:30 PM Lunch
1:40 – 1:50 PM Welcome - *Michael Schröter*
1:50 – 3:40 PM Primer Lecture – P1 – *Jeff Walling*
3:40 – 3:50 PM Coffee Break
3:50 – 5:20 PM Primer Lecture – P2 – *Jeff Walling*
5:20 – 5:30 PM Questions and Adjourn

The primer course is an introductory-level course on a selected topic relevant to BCICTS attendees.

Abstract:
Frequency conversion is at the heart of radio design, as it enables frequency translation from low-frequency and baseband signals to high-frequency and vice versa. In the age of mm-Wave and THz, where it is difficult to realize fundamental mode oscillators, frequency multiplication enables a lower frequency oscillator to operate be translated to higher frequency and hence enables mixing operations at much higher frequencies. This primer course will provide theoretical background for both mixer and multiplier operation. It will then examine common mixer and multiplier topologies and will provide insights into differences between operation in different technologies (e.g., Si vs. III-V, FET vs. HBT, etc.).

Jeff Walling received his BS from University of South Florida and his MS and PhD from University of Washington, all in Electrical Engineering. He has held industrial positions at Motorola, Intel, Qualcomm and Skyworks. His research has primarily focused on circuits for wireless communications and sensing. From 2012 to 2019, he was an assistant, then associate professor at University of Utah. Then he was head of RF transceivers at Tyndall National Institute in Cork, Ireland. Since 2021, he is an associate professor at Virginia Tech. He has served as an associate editor for TCAS-II, TCAS-I and JSSC, and on the technical program committees of the IEEE RFIC, ISSCC and NEWCAS conferences. In 2025, he was the North American Regional Subcommittee Chair for ISSCC. He is a senior member of the IEEE and has more than 100 papers in peer reviewed conferences and journals.

MONDAY

INTRODUCTORY REMARKS AND PLENARY

WELCOME AND ANNOUNCEMENTS

Monday, 10:00 - 10:30 AM

Salon III & IV

Michael Roberg, Symposium Chair

PLENARY 1

Monday 10:30 AM – 11:30 AM

Salon III & IV

Session Chair: Michael Roberg, *Qorvo, Inc*
Co-chair: Tomislav Suligoj, *University of Zagreb*

Adapting, Self-Configuring and Reconfigurable Circuits and MMICs
Charles F. Campbell
Qorvo, Inc

CONFERENCE PROGRAM

1a. Advanced Devices & Technologies
Monday 1:00 PM ***Salon I***
Session Chair: Takuya Hoshi, *NTT*
Co-Chair: Kanin Chu, *BAE*

1a.1
1:00-1:20 PM – Development and Optimization of Schottky Diodes Utilizing 3-Dimensional AlGaN/GaN SLCFET with Switch-Like Pinch-Off Effects
A. Drechsler, B. Alt, J. Parke, N. McIntyre, F. Nacio, T. Borman, and M. Snook
Northrop Grumman Microelectronics Center, Linthicum, MD

1a.2
1:20-1:40 PM – High linearity and low RF loss GaN-on-Si substrates achieved through interface engineering
S. Yadav[1], A. Rassekh[2], P. Cardinael[3], S. Banerjee[1], B. Asfeh[1], U. Peralagu[1], M. Dehan[2], J.-P. Raskin[3], and B. Parvais[1,4]
[1]*imec, Leuven, Belgium*
[2]*incize, Louvain-la-Neuve, Belgium*
[3]*UCLouvain, Louvain-la-Neuve, Belgium*
[4]*Vrije Universiteit Brussels, Ixelles, Belgium*

1a.3
1:40-2:00 PM – Development of RF Diamond Metal-Insulator-Semiconductor (MIS) Schottky Diodes for High-Power Receiver-Protection (RP) Applications
U. Ohiri, B. Bersch, m. Marakovits, N. Sauber, T. Adam, B. Hempel, A. Federice, V. Hu, N. Rogers, B. Nechay, R. Howell, S. Taylor, and A. Toulouse
Northrop Grumman Systems Corp., Linthicum, MD

1a.4
2:00-2:20 PM – Multi-Finger InP/GaAsSb DHBTs with Non-Uniform Emitter Finger Widths for Improved Thermal Performance
A. Cercaci, S. Hamzeloui, F. Ciabattini, M. Ebrahimi, A. Arabhavi, O. Ostinelli, and C. Bolognesi
ETH Zurchi, Zurich Switzerland

1a.5 (Invited)
2:20-3:00 PM – Evolution of 300mm GaN-on-Si Technology with Monolithically Integrated Si PMOS: From Technology Development to RF and mmWave Circuit Demonstrations
Q. Yu[1], I. Momson[1], A. Farid[1], A. Venkatesh[1], L. Xie[1], P. Golani[2], A. Zubair[2], S. Bader[2], P. Koirala[2], M. Beumer[2], H. Vora[2], M. Radosavljevic[2], G. Dogiamis[2], S. Rami[1], and H. W. Then[2]
[1]Design Technology Platform, Intel, Portland, OR
[2]Foundry Technology Research, Intel, Portland, OR

1b. Next Generation mmW and Sub-THz Communications
Monday 1:00 PM ***Salon II***
Session Chair: Sunil Rao, HRL Laboratories, LLC
Co-Chair: Yves Baeyens, Nokia Bell Labs

1b.1 (Invited)
1:00-1:40 PM – Innovations for 6G and Beyond: mm-Wave Wideband Digital Beamforming Transceiver Arrays for Integrated Sensing and Communication
P. Heydari
Nanoscale Communication Integrated Circuits (NCIC) Labs, University of California, Irvine, USA

1b.2
1:40-2:00 PM – A Fully-Integrated 0.4-THz OOK Wireless Transmitter in 90-nm SiGe BiCMOS
Benyamin Fallahi Motlagh, Aydin Babakhani
University of California, Los Angeles, CA, USA

1b.3
2:00-2:20 PM – A Fully-Integrated 380-440 GHz OOK Receiver with On-Chip Demodulator in 90nm SiGe BiCMOS
Jaskirat Singh Virdi, Benyamin Fallahi Motlagh, Aydin Babakhani
University of California, Los Angeles, CA, USA

1b.4
2:20-2:40 PM – CN-OOK: A Passive Common-Node OOK Modulator Using NLTL for Harmonic Generation at 120 GHz
Xiuhan Chen, Haoling Li , Najme Ebrahimi
Electrical and Computer Engineering Department, Northeastern University, Boston, MA, USA

2a. 3DIC Heterogeneous integration and thermal modeling
Monday 3:30 PM ***Salon I***
Session Chair: Saurabh Sirohi, *GlobalFoundries*
Co-Chair: Michael Schröter, TU Dresden

2a.1 (Invited)
3:30-4:10 PM – Heterogeneous integration of advanced 2.5D and 3D ICs
M. Thompson
Cadence Design Systems

2a.2 (Student)
4:10-4:30 PM – Compact Modeling of Distributed Electro-thermal Effects in SiGe HBTs and mm-Wave Power Amplifiers
G. Liang, C. Weimer, X. Jin, and M. Schröter
Chair for Electron Devices and Integrated Circuits (CEDIC), TU Dresden, Germany

2a.3 (Student)
4:30-4:50 PM – Scalable Thermal Characterization and Stress Type Comparison on 55nm SiGe HBT
A. Sarafinof[1], C. Mukherjee[1], M. De Matos[1], F. Cacho[2], C. Maneux[1]
[1]IMS Lab, University of Bordeaux, Talence, France
[2]STMicroelectronics, Crolles, France

2b. Analog ICs
Monday 3:30 PM ***Salon II***
Session Chair: Sri Navaneeth Easwaran, *Texas Instruments Inc*
Co-Chair: John J. Pekarik, gfLabs, GlobalFoundries

2b.1
3:30-3:50 PM – Low-Voltage Low-Power Current-Mode Squaring and Multiplier/Divider Circuits
Cosmin Radu Popa
Faculty of Electronics, Telecommunications and Information Technology National University of Science and Technology Politehnica, Bucharest

2b.2 (Student)
3:50-4:10 PM – A 88.6 ppm/K Robust Cryogenic DTMOS-based Bandgap Reference Operating from 8K to 300K for Quantum Computing Applications
Zhaoqun Guo, Alexander Meyer, Peter Toth, Adilet Dossanov Vadim Issakov
Institute for CMOS Design, TU Braunschweig, Braunschweig, Germany

2b.3
4:10-4:30 PM – Gaussian Activation Function Generator with Applications in Neural Networks
Cosmin Radu Popa
Faculty of Electronics, Telecommunications and Information Technology National University of Science and Technology Politehnica, Bucharest

2b.4 (Invited)
4:30-5:10 PM – A 100V VIN 400W GaN Buck-Boost Converter with Adaptive Frequency Modulation and GaN Hard- Short Protection Achieving 98.6% Efficiency for Photovoltaic to Solid-State Battery System
[1]Longcheng Pi,[2]Wei He, [2]Lian Wang, [2]Jianlong Lin, [1]Xiang Gao, [1] Xugang Ke
[1] Institute of VLSI Design, Zhejiang University, Hangzhou, China
[2] Primechip Semiconductor, Hangzhou, China

TUESDAY

3a. Advanced Next Gen Si RF Technologies
Tuesday 8:30 AM ***Salon I***
Session Chair: Johan Donkers, *NXP Semiconductors*
Co-Chair: Hiroshi Yasuda, *Texas Instruments*

3a.1 (Invited)
8:30-9:10 AM – Advancing Next Generation Wireless with Scaled FinFET Technologies
Said Rami[1], Qiang Yu[1], Ali A. Farid[1], Ibukunoluwa Momson[1], Georgios Dogiamis[2], Surej Ravikumar[1], Xi Li[1], Adam Brand[3], and Alvin Loke[1]
[1]Design Technology Platform, Intel Corp.
[2]Foundry Technology Research, Intel Corp.
[3]Foundry Services, Intel Corp.

3a.2 (Student)
9:10-9:30 AM – Inverse Design of a SiGe HBT Germanium Profile for Temperature Invariant Cutoff Frequency
Justin P. Heimerl, Harrison P. Lee, Nelson E. Sepulveda-Ramos, and John D. Cressler

School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0250 USA

3a.3 (Invited)
9:30-10:10 AM – 3DIC Technologies for RF Mobile and Infrastructure Applications
Alfred Chong
GlobalFoundries

3b. High-Performance Circuits for Optical Communications
Tuesday 8:30 AM ***Salon II***
Session Chair: Munehiko Nagatani, NTT
Co-Chair: Jorge Aguirre, Ciena

3b.1 (Invited)
8:30-9:10 AM – 200 GBaud single-carrier coherent optical transmission
N. Weiss, P. Schvan, Y. Greshishchev, S. Oveis Gharan
Ciena Corp., Ottawa, Canada

3b.2 (Invited)
9:10-9:50 AM – 53 GBaud NRZ/PAM-4 Monolithic Opto-Electrical Transceiver in a 45nm CMOS-Silicon Photonic Process with Embedded Controller
Yun Zhe Li, Artsroun Darbinian, Shahab Ardalan, Ari Novack, Matthew Streshinsky
Enosemi Inc.

3b.3
9:50-10:10 AM – A 128 GS/s 2x Time-Interleaved Track and Hold Amplifier in 130nm SiGe BiCMOS
M. Weizel, H. G. M. Nagaraju, J. C. Scheytt
Paderborn University / Heinz Nixdorf Institute

4a. Device Physics, Reliability, TCAD and ML
Tuesday 10:40 AM ***Salon I***
Session Chair: Guanghai Ding, Analog Devices
Co-Chair: Jonggook Kim, Texas Instruments

4a.1 (Invited)
10:40-11:20 AM – Long-Term RF Reliability of SiGe HBTs: Characterization and Modeling
Christoph Weimer[1], Gerhard G. Fischer[2], and Michael Schroter[1]
[1]*Technische Universitat Dresden, Germany*
[2]*IHP, Leibniz-Institut fur innovative Mikroelektronik, Frankfurt (Oder), Germany*

4a.2 (Student)
11:20-11:40 AM – Physical Mechanisms Behind the Current Increase in Silicon Bipolar Transistors at Cryogenic Temperatures
A. Tabaković*, F. Bogdanović*, L. Marković*, and T. Suligoj*
University of Zagreb, Faculty of Electrical Engineering and Computing, Micro and Nano Electronics Laboratory, Zagreb, Croatia

4a.3 (Invited)
11:40-12:20 PM – Technology CAD and Machine Learning: A New Paradigm for Semiconductor Technology Development

Jeffrey Johnson[1], Eduardo Silva[2], Tom Herrmann[3], Paul Jungmann[3], Alban Zaka[3]
[1]*GlobalFoundries Inc, Malta, NY USA*
[2]*GlobalFoundries Inc, Austin, TX USA*
[3]*GlobalFoundries Inc, Dresden, Germany*

4b. III-V Modeling, MMICs, and Packaging

Tuesday 10:40 AM ***Salon II***
Session Chair: Mike Coffey, Boeing
Co-Chair: Kazuya Yamamoto, Mitsubishi Electric

4b.1
10:40-11:00 AM – Design and Comparison of Fully Integrated mm-Wave GaAs Power Amplifiers using Physics-Based Compact Model
Pilsoon Choi[1], Ryan Fang[2], Yijing Feng[2], Ujwal Radhakrishna[3], Eugene Fitzgerald[1], Lan Wei[2]
[1]*Massachusetts Institute of Technology*
[2]*University of Waterloo*
[3]*Texas Instruments*

4b. 2
11:00-11:20 AM – Investigation of V-band GaN MMIC integration in an advanced FO-WLP package
M. Bouslama[1], S. Piotrowicz[1], A. Jakani[1], L. Hamidouche[1], J-C. Jacquet[1], Q. Lévesque[1], B. Lambert[2], G. Gauthier[1]
[1]*III-V Lab, France*
[2]*UMS S.A.S., France*

4b.3 (Student)
11:20-11:40 AM – A GaAs HEMT Rectifier-Type Mixer for Battery-Less Wirelessly Powered Relay Transceivers
Masayuki Kikuchi, Michihiro Ide, Sena Kato, Keito Yuasa, Jill Mayeda, Atsushi Shirane
Institute of Science, Tokyo

4b.4 (Invited)
11:40-12:20 PM – Polymer Microwave Fiber: Redefining the Limits of Low-Power and High-Speed Communication
Patrick Reynaert, Pieter-Antonio Fernandez
KU Leuven, ESAT-MICAS, Leuven, Belgium

5a. Electro-thermal GaN modeling and characterization

Tuesday 2:00 PM ***Salon I***
Session Chair: Rob Jones, *BAE Systems*
Co-Chair: Masaya Iwamoto, *Keysight Technologies*

5a.1 (Student)
2:00-2:20 PM – Systematic Extraction Flow for GaN HEMTs with Thermal Self Heating and Charge Trapping Effects
Rebecca Fang[1], Johan Alant[1], Daiyao Xu[1], Ujwal Radhakrishna[2], Lan Wei[1]
[1]*Department of Electrical and Computer Engineering, University of Waterloo, Canada,*
[2]*Kilby Research labs, Texas Instruments Inc.*

5a.2 (Student)
2:20-2:40 PM –Inter-Laboratory Comparison of Gate Resistance Thermometry Measurements of RF GaN HEMTs
Dashiel Matlock[1], Emils Jurcik[2], Daniel C. Shoemaker[3], Seokjun Kim[3], Dave Frey[1], Edward Gebara[1], Maher Tahhan[4], Matt DeJarld[4], Eduardo M. Chumbes[4], Jeffrey Laroche[4], Samuel Graham[2], Sukwon Choi[3], and Nicholas C. Miller[1]
[1] *Department of Electrical and Computer Engineering, Michigan State University, USA*
[2] *Department of Mechanical Engineering, University of Maryland, USA*

[3] *Department of Mechanical Engineering, The Pennsylvania State University, USA*
[4] *Raytheon, Andover, MA, USA*

5a.3 (Invited)
2:40-3:20 PM – Simulating High-Voltage RF GaN HEMTs using Fermi Kinetics Transport
C. Mayfield[1], S. Risdon[1], M. Grupen[2], Maher Tahhan[3], Matt DeJarld[3], Eduardo M. Chumbes[3], Jeffrey LaRoche[3], Nicholas C. Miller[1]
[1] Department of Electrical and Computer Engineering, Michigan State University, USA
[2] Air Force Research Laboratory Sensors Directorate, USA
[3] Raytheon, USA

5b. Integrated Wireless Subsystem Technology
Tuesday 2:00 PM ***Salon II***
Session Chair: Kazuya Yamamoto, *Mitsubishi Electric Corp.*
Co-Chair: Najme Ebrahimi, *Northeastern University*

5b.1 (Invited)
2:00-2:40 PM – Terahertz Sensing using CMOS-RFIC with High efficiency Power Amplifier
Ichiro Somada, Yuki Tsukui, Akihito Hirai, Akinori Taira, Kazuaki Ishioka, Nagahiro Abe, Koji Yamanaka
Information Technology R&D Center, Mitsubishi Electric Corporation, Kamakura, Japan

5b.2 (Student)
2:40-3:00 PM – BER Enhancement in Interference-Limited Wireless Networks Using a Distributed Receiver Array in 0.13 µm BiCMOS Technology
Alireza Kiyaei, Subhan Zakir, Mohammad Zarehosseinabadi, Saeed Zeinolabedinzadeh
Arizona State University, Tempe, Arizona, USA

5b.3 (Student)
3:00-3:20 PM – Low-Power Highly-Integrated 4-RX 2-TX Multi-Channel Cascadable D-Band Transceiver for MIMO FMCW Radar Applications in BiCMOS
J. Baumgartner[1,2], V. Lammert[1,2], T. Baluta[1], H. Knapp[2], J. Hartmann[2], H.-P. Forstner[2], V. Issakov[1,2]
[1]Technical University Braunschweig, Braunschweig, Germany
[2]Infineon Technologies AG, Neubiberg, Germany

5b.4 (Student)
3:20-3:40 PM – A Two-Channel Line-of-Sight MIMO Link at 202 GHz Using Integrated Transceiver Modules
Yuya Nemoto, Upamanyu Madhow, Mark J. W. Rodwell
University of California at Santa Barbara, Santa Barbara, USA

6a. Open source PDK and advanced modeling topics in SiGe
Tuesday 4:10 PM ***Salon I***
Session Chair: Pete Zampardi, Qorvo, Inc.
Co-Chair: Breandán ÓhAnnaidh, Analog Devices

6a.1 (Invited)
4:10-4:50 PM – IHP OpenPDK Initiative: Bringing Open Source to Analog and RF Design
S. Andreev, K. Herman, G. D. Pietrantonio
IHP GmbH, Frankfurt (Oder), Germany

6a.2
4:50-5:10 PM – Verification of compact model nonlinearity using an H-band frequency quadrupler fabricated in SG13G3Cu Technology
B. Peng[1], M. Muller[2], and M. Schröter[1]

[1]*Chair for Electron Devices and Integrated Circuits (CEDIC), TU Dresden, Germany*
[2] *Rohde&Schwarz, Munich, Germany*

6a.3
5:10-5:30 PM – Noise characterization of SiGe HBTs up to 170 GHz
G. Fischer[1], D. K. Huynh[1], A. A. Mir[1], Q. H. Le[2], T. Kampfe[2], and H. Rucker[1]
[1]*IHP–Leibniz-Institut fur innovative Mikroelektronik, Frankfurt (Oder), Germany*
[2]*Center Nanoelectronic Technologies, Fraunhofer IPMS, Dresden, Germany*

6b. Silicon-Based Circuit Design and Analysis
Tuesday 4:10 PM ***Salon II***
Session Chair: Farooq Amin, *Northrop Grumman*
Co-Chair: Greg Flewelling, *BAE Systems*

6b.1 (Student)
4:10-4:30 PM – A Stability-Informed Design Approach for RF Circuits
Joseph A. Caezza[1], Christopher R. Snyder[1], Yaw A. Mensah[1], Christopher T. Coen[2], and John D. Cressler[1]
[1]*Georgia Institute of Technology*
[2]*Georgia Tech Research Institute*

6b. 2 (Student)
4:30-4:50 PM – A 6 – 19 GHz Reconfigurable IQ Receiver with 21 dB Gain, 3 dB NF, and 30 dB IRR for 6G FR3 in 22-nm FD-SOI
Haisu Ju, Yingtao Zou, Gabriel M. Rebeiz
University of California San Diego

6b.3 (Student)
4:50-5:10 PM – A Compact 30 MHz to 11.5 GHz Ultra-Wideband Dual Channel Transmitter
Nishant Patil[1,2], Pramod S M[1], Sankaran Aniruddhan[1]
[1]*Indian Institute of Technology Madras, Chennai, India*
[2]*Now with Columbia University in the City of New York*

6b. 4 (Invited)
5:10-5:50 PM – Introduction to the WSProbe
Thomas A. Winslow
MACOM

WEDNESDAY

7a. Modeling of trapping effects in GaN devices
Wednesday 8:30 AM ***Salon I***
Session Chair: Jay Barrett, *MACOM*
Co-Chair: Ken Kikuchi, *Sumitomo Electric Device Innovations*

7a.1 (Invited)
8:30-9:10 AM – Traps in GaN HEMTs: From Characterization to Model Development and Device Optimization
Petros Beleniotis[1], Christos Zervos[1], Sascha Krause[2], Hossein Yazdani[3], Matthias Rudolph[1,4]
[1]*Brandenburg University of Technology Cottbus-Senftenberg, Germany*
[2]*was with FBH, now with Kongsberg Defence & Aerospace, Norway*
[3]*was with FBH, now with Paul Drude Institute for Solid State Electronics (PDI), Germany*
[4]*Ferdinand-Braun-Institut (FBH), Berlin, Germany*

7a.2 (Student)
9:10-9:30 AM – Compact Modeling of Drain Lag in GaN HEMTs using a Circuit-Based Approach
Mohit Sharma, Sankaran Aniruddhan, Amitava DasGupta
Dept. of Electrical Engineering
Indian Institute of Technology Madras
Chennai, India

7a.3 (Student)
9:30-9:50 AM – Physical Insights into the Kink effects in GaN Power HEMTs
Mansi Maheshwari[1], Pallavi Kumari[1], Vipin Joshi[2], Nandita DasGupta[1], Amitava DasGupta[1], and Sayak Dutta Gupta[1]
[1]Department of Electrical Engineering, Indian Institute of Technology Madras, India
[2]EEE Department, BITS-Pilani, K. K. Birla Goa Campus, India

7b. mmW Components & Techniques
Wednesday 8:30 AM ***Salon II***
Session Chair: Akshay Visweswaran, *Nokia Bell Labs*
Co-Chair: Utku Soylu, *IBM T.J. Watson Research Center*

7b.1
8:30-8:50 AM – Evaluating Probe-to-Probe Crosstalk Prior to On-Wafer Transistor Characterization
Jerome Cheron[1,2], Rob D. Jones[1,3], Jeffrey A. Jargon[1], Benjamin F. Jamroz[1] and Peter H. Aaen[3]
[1] National Institute of Standards and Technology
[2] University of Colorado Boulder
[3] Colorado School of Mines

7b.2 (Student)
8:50-9:10 AM – A Compact Fully-Differential 227-327 - GHz Push-Push Frequency Doubler with an Active Balun in a 130-nm BiCMOS Technology
Leon Spießhofer, Alexander Tiefenbach,Dietmar Kissinger
Institute of Electronic Devices and Circuits, Ulm University, Germany

7b.3
9:10-9:30 AM – A Frequency Multiplier-by-8 Chip into G-Band with High Spectral Purity using Space-Efficient Transformer-Based Baluns and TF-MSL
Rainer Weber, Eric Sigle, Sandrine Wagner, Arnulf Leuther
Fraunhofer Institute for Applied Solid State Physics IAF, Germany

7b.4
9:30-9:50 AM – A Wideband 300 GHz Downconverter in 130 nm BiCMOS Technology for High Data Rate Communication
Enrico Jimenez Tuero[1], Seyyid Dilek[1], Andrea Malignaggi[1], Corrado Carta[2]
[1]IHP GmbH – Leibniz Institute for High Performance Microelectronics Frankfurt (Oder), Germany
[2]Chair for Integrated Broadband and High Frequency Circuits Technische Universitat Berlin, Germany

8b. High Frequency Power Amplifier Techniques
Wednesday 10:20 AM ***Salon II***
Session Chair: Maxwell Duffy, *Northrop Grumman*
Co-Chair: Kevin Kobayashi, Qorvo, Inc.

8b.1 (Invited)
10:20-11:00 AM – High-Efficiency mm-Wave H-Band Power Amplifiers with Over 20% PAE
Amirreza Alizadeh[1], Masaya Iwamoto[2], Craig P. Hutchinson[2]

Miguel E. Urtega[3], Kwangwon Park[4], Mark J. W. Rodwell[4]
[1] Keysight Technologies (UCSB) Santa Rosa
[2] Keysight Technologies Santa Rosa
[3]Teledyne Scientific Thousand Oaks
[4]University of California Santa Barbara

8b.2 (Invited)
11:00-11:40 AM – Active Load Modulation for Back-Off Efficiency Improvement in Millimeter-Wave Power Amplifiers in CMOS, SiGe, and III-V Technologies
Aritra Banerjee
Department of Electrical and Computer Engineering, University of Illinois

8b.3 (Student)
11:40-12:00 PM – An F-Band Power Amplifier with Guanella Transformer-Based Stacked Architecture and Slotline Combining in 22nm FD-SOI
Giacomo Venturini, Berke Gungor, Senne Gielen, Patrick Reynaert
MICAS, KU Leuven

9a. Late News1

Wednesday 1:30 PM ***Salon I***
Session Chair: Michael Roberg, Quovo, Inc.
Co-Chair: Michael Litchfield, BAE Systems

9a.1
1:30-1:50 PM – A D-band, Double-Balanced Ring Mixer in a 22-nm FD-SOI Process with 4.1 dBm Input 1-dB Compression Point
Giorgi Aptsiauri and James F. Buckwalter
Dept. of Elec. and Comp. Engineering, University of California Santa Barbara, USA

9a.2
1:50-2:10 PM – An Ultra-compact D-band SiGe Low Noise Amplifier for Array Integration
Jonathan Tao, Matthew Tom, James F. Buckwalter
Dept. of Elec. and Comp. Engineering, University of California Santa Barbara, USA

9a.3
2:10-2:30 PM – Broadband S-Band Power Amplifiers with Novel FET Layout in 0.12 µm GaN
David J. Niven, Simon J. Mahon, Andrew J. Jones, Evan S. Shelley, Melissa C. Gorman
Macquarie University, Sydney, Australia

9a.4
2:30-2:50 PM – A Full D-Band Vector Modulator Phase Shifter in a 130-nm SiGe BiCMOS Technology

Thiemo Herbel[1], Lars Zimmermann[2], and Dietmar Kissinger[1]
[1]Institute of Electronic Devices and Circuits, Ulm University, Ulm, Germany
[2]Leibniz Institut für Innovative Mikroelektronik (IHP), Frankfurt (Oder), Germany

9b. Late News2

Wednesday 1:30 PM ***Salon II***
Session Chair: Munehiko Nagatani, NTT
Co-Chair: Mahdi Parvizi, CISCO Systems

9b.1
1:30-1:50 PM – A 145-GHz-Bandwidth InP-HBT Active Combiner Module Enabling 448-Gbps PAM-4 Signal Generation

Hitoshi Wakita[1], Teruo Jyo[1], Munehiko Nagatani[1], Masanori Nakamura[2], Yuta Shiratori[1], Fukutaro Hamaoka[2], Takayuki Kobayashi[2], Yutaka Miyamoto[2], and Hiroyuki Takahashi[1]
[1] *Device Technology Laboratories, NTT, Inc., 3-1 Morinosato Wakamiya, Atsugi, Kanagawa, Japan*
[2] *Network Innovation Laboratories, NTT, Inc., 1-1 Hikarinooka, Yokosuka, Kanagawa, Japan*

9b.2
1:50-2:10 PM – High-efficiency >110-GHz-Bandwidth 4-Vppd InP-DHBT Linear Modulator Driver for Beyond-200-GBd Optical Transceivers

R. Hersent[1,2] , F. Blache[1,2], F. Jorge[1,2], V. Nodjiadjim[1,2], N. Davy [1,2], C. Mismer[1,2], M. Riet[1], L. Iotti[3], A. Rylyakov[3], A. Konczykowska[1] and B. Ardouin[1,2]
[1] *III-V/Si Circuits for Analog/Digital Interfaces (CADI) Departement from the III-V Lab, a joint laboratory between Nokia Bell Labs, Thal`es Research and Technology and CEA Leti, Palaiseau, France.*
[2] *Nokia Bell Labs France, Massy, 91300, France.*
[3] *Nokia Corporation, New-York City, NY, USA*

9b.3
2:10-2:30 PM – A 190-GHz Bandwidth 61-dBOhm Low-Noise Differential Transimpedance Amplifier in a 130-nm SiGe Technology with fT/fmax of 470/650 GHz

Thiemo Herbel[1], Anna Peczek[2], Frank Vater[2], and Dietmar Kissinger[1]
[1]*Institute of Electronic Devices and Circuits, Ulm University, Germany*
[1]*Leibniz Institut f¨ur Innovative Mikroelektronik (IHP), Germany*

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mm-WAVE AND THZ ICs
Millimeter - wave circuits and systems - THz circuits and systems. MM-Wave switches and amplifiers. Phased-array antenna circuits

DEVICE PHYSICS:
New device physics phenomena in Si, SiGe, SiC, GaN, MOS, and III-V HBTs and FETs - Device design issues and scaling limits - Hot electron effects and reliability physics - Transport and high field phenomena - Noise - Linearity/Distortion - Novel measurement techniques - Operation in extreme environments (low/high temperatures, radiation effects), and ESD phenomena.

MODELING AND SIMULATION
Improved silicon-based BJT and HBT models and physics-based modelling techniques - Improved III-V HBT and FET models and physics-based modelling techniques - Parameter extraction methods and test structures - High-frequency measurement, calibration and de-embedding techniques - RF and thermal simulation techniques - Modelling of passives, interconnect and packages - Statistical modelling - Device, process and circuit simulation - CAD/modelling of power devices - Packaging of power devices.

PROCESS AND DEVICE TECHNOLOGY
Device and IC manufacturing processes, testing methodologies, & reliability - Integration of III-V devices on Si - High performance devices such as GaN power conversion devices - near-THz SiGe HBTs & InP HEMTs - Novel devices such as tunnel FETs (TFETs) - carbon nanotubes, MEMS, graphene & diamond transistors. Optoelectronic and photonic devices such as optical modulators, lasers, photodetectors, and Silicon Photonics - Thermal management technologies, thermal simulation - Advanced packaging of high-power devices and ICs. Advances in processes and device structures demonstrating high speed, low power, low noise, high current, high voltage, etc. BiCMOS processes - Advanced process techniques - Si and SiC homojunction bipolar/BiCMOS devices and SiGe heterojunction bipolar/BiCMOS devices - Manufacturing solutions related to Bipolar and BiCMOS yield improvements - Fabrication of high-performance passive components, sensors, and MEMs - Process technology related to discrete and integrated bipolar/BiCMOS power devices - IGBT, RF power devices. Wide bandgap bipolar devices (e.g., SiC) and related process technology - 3D Integration - Reliability and testing for IC manufacturing

IMPORTANT DATES
Friday May 8, 2026 – Abstracts Due
Friday, July 10, 2026 – Decision E-mail Sent
Friday, September 4, 2026 – Final Manuscript Due

Authors must submit an abstract (not more than 4 pages including figures and other supporting material) of results not previously published or not already accepted by another conference. Papers will be selected on the basis of the abstract.

The abstract must concisely and clearly state:

a) The purpose of the work
b) What specific new results have been obtained
c) How it advances the state-of-the-art or the industry
d) References to prior state-of-the-art
e) Sub-committee preference:
   - Analog, RF, and Microwave ICs
   - Device Physics
   - High-Speed Digital, Mixed-Signal, & Optoelectronic ICs
   - Modeling & Simulation
   - mm-Wave and THz ICs
   - Process & Device Technology

Abstracts must include: title, author(s) name(s) and affiliation(s), corresponding authors' postal and e-mail addresses, and telephone numbers. The committee will honor the authors' committee preference but reserves the right to review the paper in other categories.

Company and governmental clearances must be obtained prior to submission of the abstract.

Accepted work may be used for publicity purposes. Portions of the abstracts may be quoted in articles publicizing the Symposium. Please note on the abstract if this is not acceptable.

Abstracts (PDF only) must be submitted electronically.

Authors will be informed of a decision by July 10, 2026. Authors of accepted papers are required to submit a 4-page camera-ready PDF by September 4, 2026 for inclusion in the Symposium Digest.

Further questions on abstract submission may be addressed to the Symposium Technical Chair:

Jack Pekarik
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GlobalFoundries
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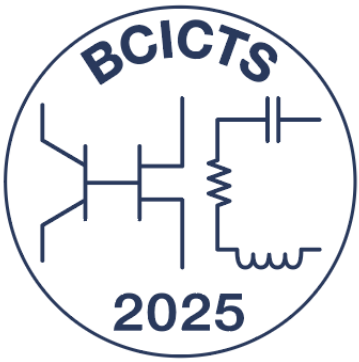

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