

RFIC 2019: IEEE Radio Frequency Integrated Circuits Symposium

Boston, MA, USA
June 2-4, 2019



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RFIC 2019 Call for Papers

The **2019 IEEE Radio Frequency Integrated Circuits Symposium (RFIC 2019)** will be held 2-4 June 2019 at the Boston Convention and Exhibition Center in Boston, MA, USA. For the latest information, please visit: rfic-ieee.org.

Electronic Paper Submission/Communication: Technical papers must be submitted via the RFIC 2019 website at rfic-ieee.org. Hard copies will not be accepted. Complete information on how and when to submit a paper can be found on the RFIC 2019 [website](http://rfic-ieee.org). As in last year, a **double-blind review process** will be followed.

Technical Areas: The symposium solicits papers describing original work in all areas related to RF and millimeter-wave integrated circuits and systems. Work should be demonstrated through integrated-circuit hardware results. Original contributions are solicited in areas including but not limited to the following:

- **Wireless Cellular and Connectivity:** innovative circuit and system-on-chip concepts related to wireless applications below 6GHz, including those designed for existing and emerging standards such as 2G/3G/4G/5G (sub-6GHz), LTE, WWAN, WLAN, BT, GPS, FM, and UWB.
- **Low Power Transceivers:** RF circuits designed for extremely low power or harvested-energy operation, wake-up receivers, SOCs designed for operation within emerging RFID, NFC, Zigbee, 802.15.4, WPAN, WBAN, Biomedical, Sensor Nodes, or IR-UWB applications
- **Receiver Components and Circuits:** LNAs, mixers, VGAs, stand-alone phase shifters, T/R switches, integrated FEM, amplifiers, filters, demodulators, for RF through millimeter-wave frequencies
- **Analog and Mixed-Signal Blocks and SOCs:** RF and baseband converters (ADC/DAC), sub-sampling/over-sampling circuits, converters for digital beamforming, converters for emerging TX and RX architectures, power (DC-DC) converters for RF applications, I/O transceivers and CDRs for wireline and optical connectivity
- **Reconfigurable and Tunable Front-Ends:** SDR/cognitive radio, N-path receivers/filters, wideband/multi-band front-ends, interference cancellation, full-duplex, adaptive front-ends
- **Transmitter Sub-Systems and Power Amplifiers:** power amplifiers, drivers, modulators, digital transmitters, advanced TX circuits, linearization and efficiency enhancement techniques, for RF through millimeter-wave frequencies
- **Oscillators:** VCOs, injection-locking frequency dividers/multipliers
- **Frequency Synthesis:** PLLs, DLLs, MDLLS, DDS, LO drivers, frequency dividers
- **Device Technologies, Packaging, Modeling, and Testing:** RF device technology (both silicon and compound semiconductors) MEMS, integrated passives, photonic, reliability, packaging, modeling and testing, EM modeling/co-simulation, built-in-self-test (BIST)
- **Millimeter- and Sub-Millimeter Wave Communication and Sensing Systems:** >20GHz SoCs/SiPs for wireless communication (5G mm-wave, WiGig, 802.11ay), phased-arrays, imaging, radar, spectroscopy, and remote sensing
- **Emerging Circuit Technologies (NEW This Year):** RF circuits and systems incorporating MEMs sensors and actuators, heterogeneous and 3D ICs, silicon photonics, quantum computing ICs, hardware security, and machine learning applications

Technical Format: The symposium starts on Sunday, June 2, 2019 with workshops and short courses, followed by two plenary talks and a reception featuring our top industry and student papers. Monday, June 3rd and Tuesday, June 4th will be comprised of oral presentations, an interactive forum, and panel sessions.

Microwave Week 2019: Microwave Week begins with the RFIC Symposium and then continues with the International Microwave Symposium, and concludes with the ARFTG Microwave Measurement Conference. This week, with more than 9000 participants and 800 industrial exhibits of state-of-the-art microwave products, is the world's largest and most important gathering of RF and microwave professionals in the field.

Industry Exhibition: This three-day Exhibition typically showcases as many as 1000 Exhibitors who represent the state-of-the-art of the industry covering everything needed for RF and microwave design including materials, technologies, components and subsystems, as well as RF IC design and simulation software, measurement and fabrication equipment. It is a perfect venue for engineers to find the newest on RF, microwave, and mm-wave ICs.

Electronic Submission Deadlines

Technical Paper in PDF format:

14 January 2019

Final Manuscripts for the Digest and USB:

22 March 2019

All submissions must be made at rfic-ieee.org in pdf form. Hard copies are not accepted.



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Technical Paper Electronic Submission

Author Registration and Paper Submission Steps:

1. Author registration form: title, author(s) and affiliation(s), and statement of exclusivity. This form also includes a 30-50 word abstract (description of the subject, its importance, and how the work contributes to the field). This information is required and must be submitted via the website: rfic-ieee.org.
2. Authors must use the template provided on the website (above) to format their manuscript. **The manuscript may not exceed 4 pages total and the file size must be less than 2 MB. For PDF files, use Distiller and select “embed all fonts”. Please note that we are not accepting “*.doc” files.**
3. Authors must adhere to specific guidelines to ensure that the submitted paper is compliant with the **double-blind review process**. Details are provided on RFIC website at rfic-ieee.org.
4. Submission deadline: **14 January 2019**
Submissions will be acknowledged instantly.
HARD copy and FAX submissions will NOT be accepted.
Late submissions will NOT be considered.

Authors of accepted papers will be required to submit a final manuscript for publication, including a clear die photo of the work described in the manuscript.

Visa Requirements: *Due to the short timeframe between paper acceptance and conference, the contact authors should provide their name as it shows on their passport and correct mailing address.*

Paper Selection Criteria: All submissions must be in **English**. Papers will be selected based on the following factors:

- **Originality:** The paper must be unique, significant, and state-of-the-art. Are references to existing literature included?
- **Quantitative content:** The papers should give an explicit description of the work with supporting data.
- **Quality:** Clarity of the writing and figures. What is the context of the contribution to previous work?
- **Interest to RFIC attendees:** Why should this work be reported at this conference?

Clearances: Authors must obtain all required company and government clearances prior to submitting a paper. A statement of clearance, signed by the submitting author, must accompany the final manuscript for the paper to be considered for publication.

Presentation Format:

- **Oral Presentation Papers:** Authors will be given 20 minutes to describe novel circuit and system techniques, measurement results, and potential impact to the RFIC community.
- **Interactive Forum Papers:** Select papers will be presented in poster format that facilitate interactive discussions.

All Authors must provide a PDF version of the presentation material for registered attendees to download during the symposium and sometime after it as a bundle download.

Best Student Paper Award: A student paper award contest will be held as part of the Symposium. Student papers will be reviewed in the same manner as all other papers. To be considered, the author must have been a full-time student (9 hours/term graduate, 12 hours/term undergraduate) during the time the work was performed **and** be the lead author and presenter of the paper. *The email address of the student’s advisor must be supplied during submission time and will be used to verify the student eligibility.* Complimentary registration will be given to the student finalists as well as the top-three award winners. *Selected finalists will also present a poster for Sunday’s Symposium Showcase.*

Industry Best Paper Award: An industry paper award contest will be held as part of the Symposium. Industry papers will be reviewed in the same manner as all other conference papers. Only papers with an industrial first author **and** presenter will be qualified for the Industry Best Paper Award. *Selected finalists will also present a poster for Sunday’s Symposium Showcase.*

Invited Journal Articles: Select authors will be invited to submit an expanded manuscript to the RFIC special issue in *IEEE Journal of Solid-State Circuits*. In addition, all authors are invited to submit an expanded version of their papers to the special issue of *IEEE Transactions of Microwave Theory & Techniques*.

Notification: Authors will be notified of acceptance on 22 February, 2019. Authors of accepted papers will receive copyright release forms and instructions for publication and presentation. Final manuscripts for publication in the RFIC digest must be received by **22 March 2019**.

Double Submission: Authors who do not properly cite their previous work, or who submit an RFIC manuscript to two or more publications without informing the editor that the paper is concurrently under review by another publication will be reported to IEEE and may be banned from future publications.

