## **Best Student Paper Award Finalists**

One of the missions of RFIC Symposium is to promote academic research and education. As part of the Best Student Paper Award program, several finalists are nominated every year by RFIC Technical Program Committee to enter the final contest where the top-three best papers are selected. All finalists benefit from a complimentary RFIC registration. The top-three Best Student Papers will be announced during the RFIC Plenary Session on 22 May 2016 in San Francisco. Each winner will receive an honorarium and a plaque. This year's Best Student Paper Award finalists are:

A Multiphase Switched Capacitor Power Amplifier in 130nm CMOS

Wen Yuan, Jeffrey S. Walling

University of Utah, USA

RMO3D-4 14:30

An Efficient 210GHz Compact Harmonic Oscillator with 1.4dBm Peak Output Power and

10.6% Tuning Range in 130nm BiCMOS

Chen Jiang<sup>1</sup>, Andreia Cathelin<sup>2</sup>, Ehsan Afshari<sup>1</sup>

<sup>1</sup>Cornell University, USA, <sup>2</sup>STMicroelectronics, France

RMO3C-5 14:50

A Mixer Frontend for a Four-Channel Modulated Wideband Converter with 62dB Blocker

Rejection

Douglas Adams<sup>1</sup>, Yonina Eldar<sup>2</sup>, Boris Murmann<sup>1</sup>

<sup>1</sup>Stanford University, USA, <sup>2</sup>Technion, Israel

RTU1A-4 09:00

A 2.22-2.92GHz LC-VCO Demonstrated with an Integrated Magnetic-Enhanced Inductor in

180nm SOI CMOS

Rui Ma<sup>1</sup>, Fei Lu<sup>1</sup>, Qi Chen<sup>1</sup>, Chenkun Wang<sup>1</sup>, Feng Liu<sup>2</sup>, Wanghui Zou<sup>3</sup>, Albert Wang<sup>1</sup>

<sup>1</sup>University of California, Riverside, USA, <sup>2</sup>Wuhan University, China, <sup>3</sup>Hunan University, China

RMO2A-3 10:50

An 802.11 a/b/g/n Digital Fractional-N PLL with Automatic TDC Linearity Calibration for Spur Cancellation

Dongyi Liao<sup>1</sup>, Hechen Wang<sup>1</sup>, Fa Foster Dai<sup>1</sup>, Yang Xu<sup>2</sup>, Roc Berenguer<sup>3</sup>

<sup>1</sup>Auburn University, USA, <sup>2</sup>Illinois Institute of Technology, USA, <sup>3</sup>Innophase, USA

RMO2C-5

A Wideband Voltage Mode Doherty Power Amplifier

Voravit Vorapipat, Cooper Levy, Peter M. Asbeck

University of California, San Diego, USA

RMO4D-4 16:40

A Fully Integrated Software-Defined FDD Transceiver Tunable from 0.3-to-1.6GHz

Dong Yang<sup>1</sup>, Hazal Yüksel<sup>2</sup>, Christopher Newman<sup>2</sup>, Changhyuk Lee<sup>3</sup>, Zachariah Boynton<sup>2</sup>,

Noman Paya<sup>4</sup>, Miles Pedrone<sup>5</sup>, Alyssa Apsel<sup>2</sup>, Alyosha Molnar<sup>2</sup>

<sup>1</sup>Broadcom, USA, <sup>2</sup>Cornell University, USA, <sup>3</sup>Columbia University, USA, <sup>4</sup>Texas Instruments,

USA, <sup>5</sup>IBM, USA

RTU2A-3 10:50 A Fully Integrated 320pJ/b OOK Super-Regenerative Receiver with -87dBm Sensitivity and Self-Calibration

Vahid Dabbagh Rezaei<sup>1</sup>, Stephen J. Shellhammer<sup>2</sup>, Mohamed Elkholy<sup>1</sup>, Kamran Entesari<sup>1</sup> Texas A&M University, USA, <sup>2</sup>Qualcomm, USA

RMO4A-2 16:00

A 28GHz Quadrature Fractional-N Synthesizer for 5G Mobile Communication with Less Than 100fs Jitter in 65nm CMOS

W. El-Halwagy<sup>1</sup>, A. Nag<sup>1</sup>, P. Hisayasu<sup>2</sup>, F. Aryanfar<sup>2</sup>, P. Mousavi<sup>1</sup>, M. Hossain<sup>1</sup>

<sup>1</sup>University of Alberta, Canada, <sup>2</sup>Samsung, USA

RMO2C-1 10:10

A 5GHz All-Passive Negative Feedback Network for RF Front-End Self-Steering Beam-Forming with Zero DC Power Consumption

Min-Yu Huang, Taiyun Chi, Hua Wang

Georgia Institute of Technology, USA

RMO1D-3 08:40

A 42mW 26–28GHz Phased-Array Receive Channel with 12dB Gain, 4dB NF and 0dBm IIP3 in 45nm CMOS SOI

Umut Kodak, Gabriel M. Rebeiz

University of California, San Diego, USA

RTU2C-3 10:50

10:50

A 28-GHz 4-Channel Dual-Vector Receiver Phased Array in SiGe BiCMOS Technology

Yi-Shin Yeh<sup>1</sup>, Benjamin Walker<sup>2</sup>, Ed Balboni<sup>2</sup>, Brian A. Floyd<sup>1</sup>

<sup>1</sup>North Carolina State University, USA, <sup>2</sup>Analog Devices, USA

RTU2C-4 11:10

0.84-THz Imaging Pixel with a Lock-In Amplifier in CMOS

Rui Xu $^1$ , Ja-Yol Lee $^2$ , Dae Yeon Kim $^1$ , Shinwoong Park $^3$ , Zeshan Ahmad $^1$ , Kenneth K.  $\mathrm{O}^1$ 

<sup>1</sup>University of Texas at Dallas, USA, <sup>2</sup>ETRI, Korea, <sup>3</sup>Virginia Tech, USA

RMO3A-3 14:10

Student Paper Contest Eligibility: The student must have been a full time student (9 hours/term graduate, 12 hours/term undergraduate) during the time the work was performed. The student must be the lead author of the paper and must present the paper at the Symposium. A memorandum will be automatically sent to the advisor to certify that the work was done by the student.

<u>Judging Procedure</u>: Student papers are reviewed and admitted to the conference in the same manner as all other conference papers. After the paper review process is completed, each technical program subcommittee recommends a maximum of two student papers as finalists. A student paper contest committee consisting of one representative from each subcommittee is then formed to review all the finalists and select the top three papers. Papers accepted for the competition are judged on content.

Stefano Pellerano Student Programs Chair Intel