

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I: REGULAR PAPERS

A PUBLICATION OF THE IEEE CIRCUITS AND SYSTEMS SOCIETY



WWW.IEEE-CAS.ORG

JUNE 2016

VOLUME 63

NUMBER 6

1549-8328

(ISSN 1558-0806)

REGULAR PAPERS

Analog and Mixed Mode Circuits and Systems

- On the Stability of Charge-Pump Phase-Locked Loops *A. Homaoun and B. Razavi* 741
- An Asynchronous Delta-Modulator Based A/D Converter for an Electronic System Prototyping Platform
. *W. Hussain, H. Fakhoury, P. Desgreys, Y. Blaquiere, and Y. Savaria* 751
- Matching Properties of Femtofarad and Sub-Femtofarad MOM Capacitors
. *H. Omran, H. Alahmadi, and K. N. Salama* 763
- Loss Mechanisms and Optimum Design Methodology for Efficient mm-Waves Class-E PAs
. *O. El-Aassar, M. El-Nozahi, and H. F. Ragai* 773
- A Fully-Printed Self-Biased Polymeric Audio Amplifier for Driving Fully-Printed Piezoelectric Loudspeakers.
. *B. Kheradmand-Boroujeni, G. C. Schmidt, D. Höft,
M. Bellmann, K. Haase, K. Ishida, R. Shabanpour, T. Meister, C. Carta, P. Ghesquiere, A. C. Hübler, and F. Ellinger* 785

Circuit Theory

- Analysis of Input LCR Matched N -Path Filter. *Z. Lu, J. Jin, T. Mo, and J. Zhou* 795

Digital Circuits and Systems and VLSI

- Ultra Low Voltage Synthesizable Memories: A Trade-Off Discussion in 65 nm CMOS
. *O. Andersson, B. Mohammadi, P. Meinerzhagen, A. Burg, and J. N. Rodrigues* 806
- An FPGA-Based Instrument for En-Masse RRAM Characterization With ns Pulsing Resolution.
. *J. Xing, A. Serb, A. Khat, R. Berdan, H. Xu, and T. Prodromakis* 818
- Practical Determination of Individual Element Resistive States in Selectorless RRAM Arrays
. *A. Serb, W. Redman-White, C. Papavassiliou, and T. Prodromakis* 827

Signal Processing

- Second and Third-Order Noise Shaping Digital Quantizers for Low Phase Noise and Nonlinearity-Induced Spurious
Tones in Fractional- N PLLs *E. Familier and I. Galton* 836
- Recursive Filters for Time-Interleaved ADC Mismatch Compensation. *S. Xu, Y. C. Lim, and J. W. Lee* 848
- Concurrent Multi-Channel Crosstalk Jitter Characterization Using Coprime Period Channel Stimulus
. *N. L. Tzou, D. Bhatta, X. Wang, T.-H. Chen, S.-W. Hsiao, B. Muldrey Jr., H. W. Choi, and A. Chatterjee* 859

(Contents Continued on Back Cover)



<i>Nonlinear Circuits and Systems</i>	
Noise Spike Model in Relaxation Oscillators Based on Physical Phase Change	<i>B. H. Leung</i> 871
Off-Resonance Oscillation, Phase Retention, and Orthogonality Modeling in Quadrature Oscillators	<i>A. Nikoofard, S. Kananian, and A. Fotowat-Ahmady</i> 883
Bayesian Inference With Muller C-Elements	<i>J. S. Friedman, L. E. Calvet, P. Bessière, J. Droulez, and D. Querlioz</i> 895
Investigation of Modes in Double-Tuned LC-VCOs	<i>A. Buonomo and A. Lo Schiavo</i> 905
<i>Control Theory and Systems</i>	
Modelling and Control for Bounded Synchronization in Multi-Terminal VSC-HVDC Transmission Networks	<i>A. Dòria-Cerezo, J. M. Olm, M. di Bernardo, and E. Nuño</i> 916
