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Pages 769-1543
**B1L-F:** Digital VLSI Circuits  
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**Room:** Room 303B  
**Chairs:** Volkan Kursun, *The Hong Kong University of Science and Technology*  
Gaetano Palumbo, *Universita' di Catania*

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1IBM Research - Zurich Laboratory, Switzerland; 2University of Bristol, United Kingdom
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Kentaro Yoshioka, Yosuke Toyama, Teruo Jyo, Hiroki Ishikuro
Keio University, Japan

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Chia-Ling Chang, Jieh-Tsorng Wu
National Chiao Tung University, Taiwan

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Jose Luis Ceballos, Christian Reindl
Infineon Technologies Austria AG, Austria

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Oscar Belotti, Edoardo Bonizzoni, Franco Maloberti
Università degli Studi di Pavia, Italy

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José M. de la Rosa
CSIC - Instituto de Microelectrónica de Sevilla IMSE-CNM, Spain
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Yifei Li, Nathan Neihart
Iowa State University, United States

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Tao Zhang, Qiaoyan Yu
University of New Hampshire, United States

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Yacong Zhang, Xiaolu Chen, Zhongjian Chen, Wengao Lu
Peking University, China

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Erik Ryman2, Stefan Back Andersson2, Johan Riesbeck2, Slavko Dejanovic2, Anders Emrich2, Per Larsson-Edefors1
1Chalmers University of Technology, Sweden; 2Omnisys Instruments AB, Sweden
B1L-K: Biomedical Systems I

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Muhammad Awais Bin Altaf, Jerald Yoo
Masdar Institute of Science and Technology, U.A.E.

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Universität Ulm, Germany
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¹Nanyang Technological University, Singapore; ²Peking University, China

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Fudan University, China

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Nanyang Technological University, Singapore

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¹Microsoft Research Asia, China; ²Xi'an Jiaotong University, China

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Peking University, China
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Tae Sun Kim¹, Myung Hoon Sunwoo¹, Sung Dae Kim²
¹Ajou University, Korea, South; ²Samsung Electronics Co., Korea, South

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¹Chinese Academy of Sciences, China; ²Southeast University, China; ³Tsinghua University, China; ⁴Xi'an Jiaotong University, China

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Seoul National University, Korea, South

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Nanyang Technological University, Singapore

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Seoul National University, Korea, South

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Linfeng Chen, Aijiao Cui
Harbin Institute of Technology Shenzhen Graduate School, China

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Kaushal Kannan, Sukeshwar Kannan, Bruce Kim, Sang-Bock Cho
1Ulsan University, Korea, South; 2University of Alabama, United States

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Advanced Micro Devices, United States
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¹ECM and ICC - Universitat de Barcelona, Spain; ²La Salle - Ramon Llull University, Spain; ³LAL - Université de Paris-Sud, France; ⁴LAL - Université de Paris-Sud, France

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¹Citruscom Semiconductor, China; ²Peking University, United States; ³Tsinghua University, China; ⁴University of California, United States; ⁵University of California, Riverside, United States

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Chairs: Tor Sverre Lande, University of Oslo
George Yuan, Hong Kong University of Science & Technology

B2L-K.1 A Portable Lab-on-Chip Platform for Magnetic Beads Density Measuring
Yushan Zheng¹, Cyril Jacquemod², Mohamad Sawan¹
¹École Polytechnique de Montréal, Canada; ²Polytechnique Montréal, Canada

B2L-K.2 Characterization of Standard CMOS Compatible Photodiodes and Pixels for Lab-on-Chip Devices
Gozen Köklü¹, Ralph Etienne-Cummings², Yusuf Leblebici¹, Giovanni De Micheli¹, Sandro Carrara¹
¹École Polytechnique Fédérale de Lausanne, Switzerland; ²Johns Hopkins University, United States

B2L-K.3 Human Respiratory Feature Extraction on an UWB Radar Signal Processing Platform
Chi-Hsuan Hsieh, Yi-Hsiang Shen, Yu-Fang Chiu, Ta-Shun Chu, Yuan-Hao Huang
National Tsing Hua University, Taiwan

B2L-K.4 Efficient Implementation of Real-Time ECG Derived Respiration System Using Cubic Spline Interpolation
Ali Shayei, Pooya Ehsani, Mahdi Shabany
Sharif University of Technology, Iran

B2L-K.5 A Low Power Low Inaccuracy Linearity-Compensated Temperature Sensor for Attachable Medical Devices
Oh-Yong Jung, Seungjin Kim, Sok-Kyun Han, Sang-Gug Lee
Korea Advanced Institute of Science and Technology, Korea, South
B2L-L: **SPECIAL SESSION: Perception-based Multimedia Quality of Experience (QoE) Evaluation**

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**Room:** Room 307B  
**Chairs:** Chenwei Deng, Beijing Institute of Technology  
Weisi Lin, Nanyang Technological University  
King Ngi Ngan, The Chinese Univ. of Hong Kong  
Lin Ma, The Chinese Univ. of Hong Kong

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**B2L-L.1**  
Overview of Quality Assessment for Visual Signals and Newly Emerged Trends  
Lin Ma², Chenwei Deng¹, King Ngi Ngan², Weisi Lin³  
¹Beijing Institute of Technology, China; ²Chinese University of Hong Kong, Hong Kong; ³Nanyang Technological University, Singapore

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**B2L-L.2**  
A New Reduced-Reference Image Quality Assessment Using Structural Degradation Model  
Ke Gu, Guangtao Zhai, Xiaokang Yang, Wenjun Zhang  
Shanghai Jiao Tong University, China

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Jong-Seok Lee  
Yonsei University, Korea, South

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LUNAM University, France

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Judith Redi¹, Ingrid Heynderickx¹, Bruno Macchiavello², Mylene Farias²  
¹Delft University of Technology, Netherlands; ²Universidade de Brasília, Brazil
B3L-A: Millimeter-wave & Optical Communications Circuits
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B3L-A.1 A Transformer Neutralization Based 60GHz LNA in 65 nm LP CMOS with 22dB Gain and 5.5dB NF
Aili Wang, Lianming Li, Tiejun Cui
Southeast University, China

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Dong-Wook Kim, Han-Kyu Chi, Yu-Sang Chun, Myung-Heon Chin, Gyungock Kim, Deog-Kyoon Jeong
1ETRI, Korea, South; 2Seoul National University, Korea, South

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Suman Sah, Siqi Zhu, Tai Nguyen, Xinmin Yu, Deukhyoun Heo
Washington State University, United States

B3L-A.4 A 3.4dB NF K-Band LNA in 65nm CMOS Technology
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1East China Normal University, China; 2Fudan University, China

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1Concordia University, Canada; 2McGill University, Canada
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Sam Gharavi, Babak Daneshrad
University of California, Los Angeles, United States

B3L-B.2 Multi-Carrier LINC Amplifier Calibration by Min-Minimum Criterion
Xinping Huang, Mario Caron
Communications Research Centre Canada, Canada

B3L-B.3 Improving the Error Correction Capability of Arithmetic Coding by Forecasting Forbidden Symbols
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City University of Hong Kong, Hong Kong

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Nanyang Technological University, Singapore

B3L-B.5 Blind Identifiability of General Constellations
Xu Wang¹, Rueywen Liu², Fan He¹, Tao Yang¹, Bo Hu¹
¹Fudan University, China; ²University of Notre Dame, United States
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        Viet Anh Nguyen, Advanced Digital Sciences Center, Singapore

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Zheng Zhou University, China

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Peking University, China

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Ruiqin Xiong², Feng Wu¹, Jizheng Xu¹, Wen Gao²
¹Microsoft Research Asia, China; ²Peking University, China

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Lei Yu, Houqiang Li, Weiping Li
University of Science and Technology of China, China

B3L-C.5 Adaptive Packet Encapsulation of Scalable Video Coding Bitstream
Haibo Zhu, Houqiang Li
University of Science and Technology of China, China
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¹Marvell, Shanghai, China; ²Tsinghua University, China; ³University of California, San Diego, United States

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<td>¹Bangladesh University of Engineering and Technology, Bangladesh; ²Concordia University, Canada</td>
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¹Guangdong University of Technology, China; ²University of Lincoln, United Kingdom

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¹Instituto de Telecomunicações, Portugal; ²Instituto Politécnico Leiria, Portugal;
³Universidade Federal do Rio de Janeiro, Brazil; ⁴Universidade Federal Fluminense,
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¹National Cheng Kung university, Taiwan; ²Shu-Te university, Taiwan

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¹CEA LETI, France; ²IMEP-LAHC Minatec, France; ³STMicroelectronics, France;
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¹Agency for Science, Technology and Research, Singapore; ²Nanyang Technological University, Singapore

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¹CEA LETI, France; ²Institut Supérieur d'Électronique de Paris, France; ³Institut Supérieur d'Électronique de Paris and University of California, Berkeley, France

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¹Universitat Politècnica de Catalunya, Spain; ²University of Guilan, Iran

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Nanyang Technological University, Singapore
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Joseph Sylvester Chang, Nanyang Technological University

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¹École Polytechnique de Montréal, Canada; ²Université du Québec à Montréal, Canada

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Peking University, China

B4L-K.2 Lobe Asymmetry-Based Automatic Classification of Brain Magnetic Resonance
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Jie Zhang², Yuanming Suo², Srinjoy Mitra¹, Sang Peter Chin², Trac Tran², Refet
Firat Yazicioglu¹, Ralph Etienne-Cummings²
¹IMEC, Belgium; ²Johns Hopkins University, United States

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Zening Fu, Zhiguo Zhang, Shing-Chow Chan
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Wei Ko
National Chiao Tung University, Taiwan
SPECIAL SESSION: Nonlinear Methods for Power Grids with Renewable Energy Sources

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B4L-L.1 Convergence Regions of Newton Method in Power Flow Studies: Numerical Studies
Jiao-Jiao Deng³, Tian-Qi Zhao³, Hsiao-Dong Chiang², Yong Tang¹, Yi Wang¹
¹China Electric Power Research Institute, China; ²Cornell University, United States; ³Tianjin University, China

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Tian-Qi Zhao¹, Jiao-Jiao Deng¹, Kaoru Koyanagi²
¹Tianjin University, China; ²Waseda University, Japan

B4L-L.3 Probabilistic Load Margins of Power Systems Embedded with Wind Farms
Jian Hong Liu, Jia Long Shyu, Chia Chi Chu
National Tsing Hua University, Taiwan