



**Workshop Toward Brain Inspired
Interconnects and Circuits**
October 18, 2009 Luzern, Switzerland

**A New Method for Evaluating the Dynamics of Human Brain Networks
Using Complex-Systems**

Jian-Qin Liu, Kobe Advanced ICT Research Center, National Institute of Information and Communications Technology, Kobe, Japan

**On Two-layer Hierarchical Networks
How Does the Brain Do This?**

Valeriu Beiu, Basheer A.M. Madappuram, College of Information Technology, UAE University, Al Ain, UAE

Peter M. Kelly, Liam J. McDaid, School of Intelligent Systems, University of Ulster, Magee, UK

**Reduced Interconnects in Neural Networks
Using a Time Multiplexed Architecture based on Quantum Devices**

Peter Kelly, Fergal Tuffy, Liam J. McDaid, School of Intelligent Systems, University of Ulster, Magee, UK

Valeriu Beiu, College of Information Technology, UAE University, Al Ain, UAE

**On the Reliability of Interconnected CMOS Gates
Considering MOSFET Threshold-Voltage Variations**

Mawahib H. Sulieman, Department of Electrical Engineering, UAE University, Al Ain, UAE

On Wires Holding a Handful of Electrons

Valeriu Beiu, Walid Ibrahim, College of Information Technology, UAE University, Al Ain, UAE

Rafic Z. Makki, Abu Dhabi Educational Council, Abu Dhabi, UAE

Improving Nano-Circuit Reliability Estimates by Using Neural Methods

Azam Beg, College of Information Technology, UAE University, Al Ain, UAE

A Bayesian-based EDA Tool for nano-Circuits Reliability Calculations

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