

# informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz<sup>1</sup> lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Topic: **Nano-system Design: Technology and tools**

Presenter: **Prof. Dr. Giovanni De Micheli**  
Institute of Electrical Engineering, EPFL Lausanne, Switzerland

Datum: **Friday, September 13<sup>th</sup> 2019, 13:00**

Location: **JKU, Science Park 2, room S2 059**

## **Abstract:**

Integrated nanosystems design requires a good match of technologies and tools. I will first present the landscape of emerging technologies and in particular enhanced-functionality devices exploiting new materials and geometries as well as their application into circuits. Then, I will focus on new methods for synthesis of integrated circuits based on majority algebra and I will conclude by presenting results from experimental design tools.

## **Short Bio:**

Giovanni De Micheli is Professor and Director of the Institute of Electrical Engineering at EPFL Lausanne, Switzerland. He is program leader of the Nano-Tera.ch program. Previously, he was Professor of Electrical Engineering at Stanford University.

Prof. De Micheli is a Fellow of ACM and IEEE, a member of the Academia Europaea and an International Honorary member of the American Academy of Arts and Sciences. His research interests include several aspects of design technologies for integrated circuits and systems, such as synthesis for emerging technologies, networks on chips and 3D integration. He is also interested in heterogeneous platform design including electrical components and biosensors, as well as in data processing of biomedical information. He is author of: Synthesis and Optimization of Digital Circuits, McGraw-Hill, 1994, co-author and/or co-editor of nine other books and of over 850 technical articles.

Prof. De Micheli is the recipient of the 2016 IEEE/CS Harry Goode award for seminal contributions to design and design tools of Networks on Chips, the 2016 EDAA Lifetime Achievement Award, the 2012 IEEE/CAS Mac Van Valkenburg award for contributions to theory, practice and experimentation in design methods and tools and the 2003 IEEE Emanuel Piore Award for contributions to computer-aided synthesis of digital systems. He received also the Golden Jubilee Medal for outstanding contributions to the IEEE CAS Society in 2000, the D. Pederson Award for the best paper on the IEEE Transactions on CAD/ICAS in 1987 and 2018, and several Best Paper Awards, including DAC (1983 and 1993), DATE (2005), Nanoarch (2010 and 2012) and Mobihealth(2016).

*Einladender: Univ.-Prof. Dr. Robert Wille  
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<sup>1</sup> Der Fachbereich (<http://informatik.jku.at>) besteht aus folgenden Instituten:

Application Oriented Knowledge Processing (FAW), Bioinformatics, Computational Perception, Computer Architecture, Applied Systems Research and Statistics, Computer Graphics, Formal Models and Verification, Networks and Security, Integrated Circuits, Pervasive Computing, Software Systems Engineering, System Software, Telecooperation, Signal Processing