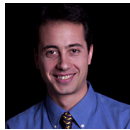




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Luca Daniel is an Associate Professor in the Electrical Engineering and Computer Science Department of the Massachusetts Institute of Technology (MIT). Prof. Daniel received the Ph.D. degree in Electrical Engineering from the University of California, Berkeley, in 2003. In 1998, he was with HP Research Labs, Palo Alto. In 2001, he was with Cadence Berkeley Labs.

Dr. Daniel research interests include development of integral equation solvers for very large complex systems, stochastic field solvers for large number of uncertainties, and automatic generation of parameterized stable compact models for linear and nonlinear dynamical systems. Applications of interest include simulation, modeling and optimization for mixed-signal/RF/mm-wave circuits, power electronics, MEMs, nanotechnologies, materials, MRI, and the human cardiovascular system.

Prof. Daniel has received the 1999 IEEE Trans. on Power Electronics best paper award; the 2003 best PhD thesis awards from both the Electrical Engineering and the Applied Math departments at UC Berkeley; the 2003 ACM Outstanding Ph.D. Dissertation Award in Electronic Design Automation; 5 best paper awards in international conferences, 8 additional nominations for best paper award; the 2009 IBM Corporation Faculty Award; and the 2010 IEEE Early Career Award in Electronic Design Automation.

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Keywords

Simulation; Model order reduction; Stochastic integral equation solvers; Magnetic Resonance Imaging; Human cardiovascular system; MEMs and circuit simulation.

Selected Publications

10.01.2009
Stable Reduced Models for Nonlinear Descriptor Systems Through Piecewise-Linear Approximation and Projection (IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems)

11.01.2008
A Capacitance Solver for Incremental Variation-Aware Extraction (Proceedings of the IEEE Conference on Computer-Aided Design)

11.01.2008
Guaranteed Stable Projection-Based Model Reduction for Indefinite and Unstable Linear Systems (Proceedings of the IEEE Conference on Computer-Aided Design)

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