

Einladung zum 153. Institutskolloquium

Thema: **The Physical Synthesis Flow: A Silicon Reality Check**

Vortragender: **Dr. Patrick Groeneveld,
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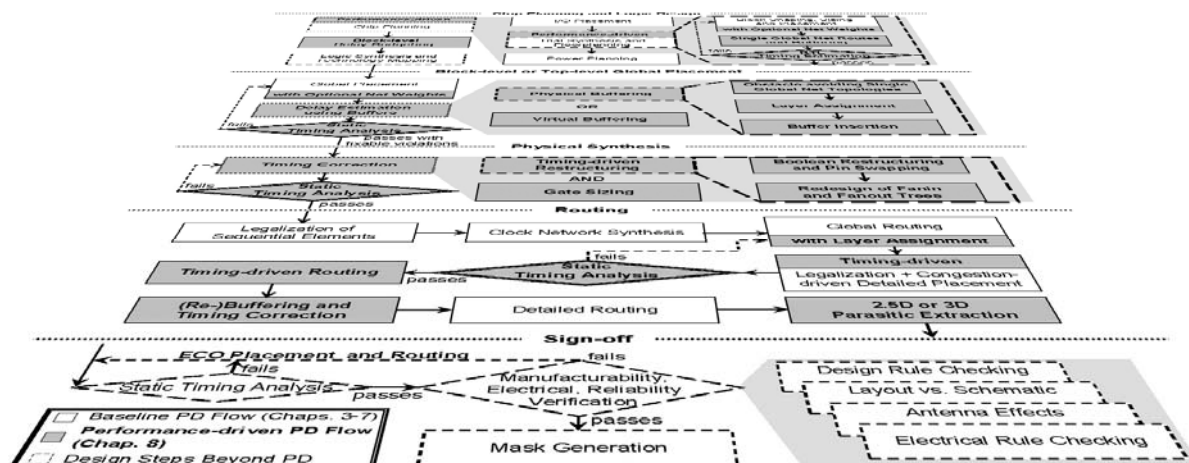
Leitung: **Prof. Dr.-Ing. habil. Jens Lienig**

Zeit / Ort: **21. September 2012, 14 Uhr im Barkhausenbau II/56**

The term “physical synthesis” describes the integration of logic synthesis with layout design of integrated circuits. A physical synthesis design flow is assembled from of a large number of smaller algorithmic steps. This is necessary to adapt to the imperfect nature of the algorithms and the wide variety of design objectives.

Surprisingly, the optimality of each algorithmic step is less relevant than is commonly assumed. Instead, the quality of the final layout is determined by the careful tuning of the interactions between the steps. Balancing the effects and side effects of avoidance and correction steps is the key for a successful flow.

This presentation will address the underlying engineering concepts that shape a modern physical synthesis design flow.



Patrick Groeneveld was Chief Technologist at Magma Design Automation in San Jose, California. Since joining Magma in 1997, he has developed key parts of Magma's flagship physical synthesis products. Synopsys recently acquired Magma. Patrick received his MSc and PhD degrees from Delft University of Technology (1987, 1991).

Before starting at Magma, Patrick was associate professor at Delft University of Technology. From 2001 until 2005 he was full professor of Electrical Engineering at Eindhoven University. In his spare time, Patrick is the general Chair of the 2012 Design Automation Conference in San Francisco. Otherwise, Patrick enjoys being with his family, hiking, reading and flying a Cessna 172.