Jürgen Lorenz, Fraunhofer IISB

ESSCIRC
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2015

WORKSHOP “VARIABILITY – FROM EQUIPMENT TO CIRCUIT LEVEL“

Welcome and Orientation

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EC FP7 PROJECT SUPERTHEME
Circuit Stability Under Process Variability and Electro-Thermal-Mechanical Coupling

- Funded by EC within FP7
- Duration 10/2012 – 12/2015
- Overall funding 3.3 M€
- Consortium of
  - 6 companies
  - 3 research institutes/universities

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 318458.

PARTNERS OF SUPERTHEME

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WORKSHOP AGENDA

- This orientation
- Industrial keynote on importance of variability
- Overview on SUPERTHEME project
- Four technical presentations from SUPERTHEME
- One presentation each from related projects MORDRED and MORV
- Final discussion

WORKSHOP AGENDA

8:45 – 9:00	Welcome and orientation, J. Lorenz, Fraunhofer IISB
9:00 – 9:30	Variability at all levels – a challenge for the semiconductor industry, A. Juge, ST
9:30 – 10:00	Overview of the SUPERTHEME project, J. Lorenz, Fraunhofer IISB
10:00 – 10:30	Defects responsible for BTI in CMOS devices: MORDRED perspective, A. Shluger, UCL
10:30 – 11:00	Variability-aware process simulation in SUPERTHEME, E. Bär, Fraunhofer IISB
11:00 – 11:30	Coffee break
11:30 – 12:00	Variability-aware device simulation in SUPERTHEME, A. Asenov, GU/GSS
12:00 – 12:30	Hierarchical modeling of reliability and time-dependent variability in the MORV project, B. Kaczer, IMEC
12:30 – 14:00	Lunch
14:00 – 14:30	Covering variability from unit process up to circuit level for mixed-signal circuits, R. Minixhofer, ams
14:30 – 15:00	Variability-aware SPICE modeling and circuit simulation in SUPERTHEME, C. Millar, GSS
15:00 – 15:30	Open discussion and concluding remarks