



CALL FOR PAPERS

Thermal, mechanical and multi-physics simulation and experiments in micro-electronics and micro-systems

April 17-20, 2005

Berlin, Germany

The Conference

After five successful editions of the EuroSimE conference, a sixth edition is planned in 2005 and will take place in Berlin. This EuroSimE 2005 will address the results of both fundamental research and industrial application for **thermal**, **mechanical** and **multiphysics** solutions of (micro)-electronics, focusing on advanced **simulation** and **experiments**. The conference will include keynote presentations and sessions with a wide range of topics including, but not limited to:



- Mechanical simulation (static & dynamic)
- Thermo-mechanical simulation
- Thermal simulation (steady state & transient)
- Multi-physics simulation (coupled thermo-fluidic problems, coupled electro-mechanics, fluid-structure interactions)
- Validation of simulations by experiments
- · Material characterisation, experiments and modelling
- Failure criteria and damage-modelling (fatigue, creep, delamination, cracks, buckling, large deformation, moistureinduced failures, yield)
- Process modelling
- Advanced numerical and analytical simulation methodologies and tools
- Behavioural modelling (HDL-A)
- Thin-film mechanics, interface strengths
- Simulation-based optimisation, virtual prototyping in product and/or process design
- Compact modeling and model order reduction

Applications:

- Components and packaging (traditional packages, flip-chip, BGA, CSP, Wafer-Level packages, MCM)
- MEMS (pressure, accelerometers, gyroscopes) and MOEMS
- Chip level reliability
- Nanotechnology
- Opto-electronic packages
- High Temperature Packaging
- Piezoelectric components
- Wafer processing and chip design
- PWB design and application
- Packaging for Harsh Environments
- Fluidic Components (microvalves, inkjet nozzles, ...)
- Infrared sensors and cameras, thermal actuators

Conference features

- Short courses (April 17) will be offered for professional training. The subjects will be announced later.
- Three days of **technical sessions** (April 18-20) for oral and poster presentation.
- A parallel **exhibition** from industrial contributors and simulation and optimization software companies.

To Submit an Abstract

You are invited to submit an abstract of about 500 words describing the scope, content, and key points (originality, specific results, potential impact).

Upload your abstract on http://www.eurosime.com/

Abstracts must be received by **October 15, 2004**. Authors will be notified by **December 1, 2004**. Deadline for the final manuscript is **January 28, 2005**.

Local organiser: Rainer Dudek (dudek@che.izm.fhg.de)





