

european society for precision engineering and nanotechnology

Special Interest Group:

Thermal Issues

26th-27th February 2020

Laboratory for Machine Tools
and Production Engineering
(WZL) of RWTH Aachen
Aachen, Germany

Thermal effects are regarded as a major contributor to errors on machine tools, on measuring equipment and on workpieces. Measurement of thermal effects is becoming even more important as workpiece tolerances decrease, as thermal effects not only use a larger part of the tolerances, but also influence repeatability and long term stability of machine tools, and measuring equipment. As a consequence, several research groups and industries are working on simulation of thermal effects, in order to finally compensate thermally induced errors, or new help to develop concepts to reduce thermally induced errors.

The intensive on-going work in this area led us to bring together a further internationally co-ordinated meeting.

We were delighted to bring together leading expertise globally to an open forum for focused presentations and discussions on thermal issues in manufacturing.

Topics

- Measurement of thermal influences in production equipment, process and product
- Modelling and model reduction techniques
- Compensation and correction of thermal effects
- Design principles for thermally robust production equipment (e.g. Machine Elements, Machine Structures)
- Test workpieces and assessment
- Thermo-energetic design
- Temperature Measurement & Control

Key dates

15th Nov 2019	Online abstract submission deadline
6th Dec 2019	Notification of presentation award to authors (oral/poster)
10th Jan 2020	Programme available online

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