

european society for precision engineering and nanotechnology

Special Interest Group:

Thermal Issues

22nd - 23rd March 2022

ETH Zürich, Switzerland

Thermal effects are regarded as a major contributor to errors on precision equipment, instruments and systems within precision engineering.

Measurement is becoming even more important as workpiece tolerances decrease, as thermal effects not only use a larger part of the tolerances, but also influences repeatability, long term stability and general issues such as “lifetime” and “process-quality” of machine tools and measuring equipment. In the work-place of today, these play an important role in high-throughput production equipment and many scientific instruments e.g. operating at cryo-genic and Ultra-high vacuum.

We were delighted to bring together leading expertise globally to an open forum for focused presentations and discussions on thermal issues. This includes manufacturing, temperature control in electric mobility (windmills), cryogenic vacuum and scientific instrumentation within large science projects.

Topics

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

Key dates

21st Jan 2022	Online abstract submission deadline
28th Jan 2022	Notification of presentation (oral/poster)
28th Jan 2022	Registration opens

Please visit our website for further information

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