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2025 GENERAL ASSEMBLY

Stockholm - Sweden

CIRP-2025-C-3

**SCIENTIFIC TECHNICAL COMMITTEE "C"
(CUTTING)**

Meeting to be held on Friday, August 22, 2025
8.30 - 12.30

You are kindly invited to participate in the next CUTTING Scientific Technical Committee meeting to be held in Stockholm.

Draft Agenda

- 1. Welcome, Introduction of Invited Guests, Apologies**
- 2. Approval of the Agenda**
- 3. Approval of Minutes of Last Meeting**
- 4. Cooperative work within the STC-C**
 - 4.1 Sensor Integrated Manufacturing, F. Bleicher (15 Minute Presentation, 15 min Q&A)
 - 4.2 Towards an advanced process and part quality monitoring for milled features, Th. Bergs (3 Minute Presentation, 2 min Q&A)
- 5. Technical presentations (10 Minute Presentation, 5 Minute Q&A)**
 - 5.1 Quasicrystals as Novel Approach for Lubrication in the Chip Formation Zone, J. Saelzer, D. Biermann
 - 5.2 Nano-Cutting Fluids Based on Graphene Nanoparticles and Vegetable Ester-Based Oils for Deep Hole Drilling under MQL Conditions, R. Teti, A. Caggiano
 - 5.3 Study of machined surface and chip cleanliness when milling aluminum and Ti alloys with CO₂ + MQL technology, L. Sterle, F. Pusavec
 - 5.4 X-ray Nanoprobe Investigation of Residual Stress Formation in Ultra-Precision Machined Single-Crystal Sapphire, S. Min
 - 5.5 Cutting Tool Wear Prediction Using Physics-Informed Machine Learning and Thermo-Mechanical Force Model, F. Pashmforous, A.E. Araghizad, E. Budak
 - 5.6 Considering Tool Wear State in Chip Formation Simulation for Calculation of Process Loads, A. Kenfack, L. Langenhorst, J. Sölter, A. Fischer, B. Karpuschewski
 - 5.7 Numerical Integration of Machining Conditions to Calculate the Fatigue Life of a Mechanical Part, J. Rech

6. Keynote Paper Presentations

- 6.1 Keynote for 2025: Integrated Machining Performance for Assess. of Cutting Tools (IMPACT). I.S. Jawahir (comments and Q&A only)
- 6.2 Keynote for 2026: Part Distortion in Machining: Prediction, Measurement, and Control. J.C. Outeiro (5 Minute Presentation, 5 Minute Q&A)
- 6.3 Keynote for 2027: Advanced Methods for Application and Modeling of Cutting Fluids in Metal-Machining Processes, D. Biermann (5 Minute Presentation, 5 Minute Q&A)
- 6.4 Keynote for 2028: Role of Additive Manufacturing in Cutting, M. Weigold (already approved, no presentation in 2025)

7. Proposals for Future Keynote Papers (5 Minute Presentation, 5 Minute Q&A)

8. CIRP Novel Topics in Production Engineering (CNTPE) (5 Minute Q&A)

8.1 tbd

9. Approval of CIRP and CIRP Sponsored Conferences

9.1 CIRP Conferences

9.1.1 tbd

9.2 CIRP Sponsored Conferences

9.2.1 tbd

10. Other Business

10.1 Announcement of new officers of STC C

11. Closure