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METAL FORMING – FORMABILITY CHARACTERIZATION, DAMAGE AND DUCTILE FRACTURE

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ABSTRACT

The minisymposium is devoted to metal forming topics both in the area of numerical simulation techniques as well as in the coupling with experimental techniques and design of manufacturing processes and components. Besides current challenges to the area, also core and classical research fields in metal forming will be treated such as material modelling and parameter identification, numerical methods for the optimization and robustness analysis, formability and damage issues, tooling, tribology and many other interesting aspects of metal forming research and industrial practices.

Topics of interest include, but are not limited to:

- *Materials*
- *Material behaviour, formability, failure, testing methods*
- *Material models and new advanced materials*
- *Tool/die materials*
- *Wear, friction, tribology*
- *Processes*
- *Bulk metal forming*
- *Deep-drawing, blanking, tube and blank hydroforming, stretch forming*
- *Machining, metal cutting*
- *Casting, molding processes*
- *Innovative and improved forming processes*
- *Innovative and improved tools and dies*
- *Rapid tooling and prototyping*
- *Trimming and cutting*
- *Hot stamping*
- *Electromagnetic forming*
- *Incremental Forming*
- *Press and equipment*
- *Defects analysis, springback and tool compensation*
- *Process design, optimization and applications*
- *Numerical Analysis and Simulation*