

## EUROMAT 2019 / Area C : Processing

### SYMPOSIUM: C9

Title: Manufacturing Processes		
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Abstract		
<p>This symposium will bring together researchers from different fields (material scientists, mechanics, industrial and mechanical engineers) to discuss recent development in the mechanics of materials and advanced manufacturing processes. Topics related to the investigation of the mechanics—experimental, theoretical or computational approaches are within the scope of this symposium. The symposium intend to cover a broad range of processes such as material removal (e.g. metal cutting, grinding, EDM/ECM), deformation processing (e.g. forming, extrusion, rolling) as well as tribological behavior of materials in the context of these manufacturing processes.</p>		
<p><b>Topics of interest, as they relate to advanced manufacturing processes, include, but are not limited to:</b></p> <ul style="list-style-type: none"><li>• Advanced experimental methods for characterizing the mechanics of deformation and microstructure evolution in the manufacturing process at multiple length-scales.</li><li>• Advances in multi-scale modeling of large strain plastic deformation and ductile failure in material removal, deformation processing and tribology</li><li>• Micromechanics of plastic deformation and microstructure evolution during processing.</li><li>• Thermal and metallurgical aspects in manufacturing processes</li><li>• Applications of novel methods for improving surface integrity in the context of manufacturing processes.</li><li>• Tribology and wear in manufacturing processes</li></ul>		