



The Fifth International Conference on Damage Mechanics (ICDM5)

Date: 16th - 18th July 2025

Venue: National University of Singapore

<p>Mini Symposium Title</p>	<p>Damage and Fracture in Materials Processing, Forming, and Additive Manufacturing</p>
<p>Short description on the focus of the Mini Symposium</p>	<p>Avoiding, managing or even leveraging damage and fracture are key aspects in designing manufacturing processes. Processing of materials, including in additive manufacturing, may introduce undesired, but inevitable, microscopic defects, the presence of which needs to be taken into account in assessing the strength and lifetime of the product. Forming processes often push materials to their limits and may result in uncontrolled geometric or material instabilities if damage is not properly managed. In fact, processes such as blanking depend on the initiation and controlled growth of cracks. A deep understanding of the micromechanics of damage and fracture, as along with predictive macroscopic models, are essential for effective industrial fabrication design. This mini symposium aims to provide a platform for discussion of all aspects of the problem, across the materials spectrum and from the experimental as well as the theoretical and computational perspectives.</p>
<p>Organizers</p>	<p>Pierre-Olivier Bouchard, MINES Paris PSL, France José César de Sá, University of Porto, Portugal Ron Peerlings, Eindhoven University of Technology, Netherlands Yanshan Lou, Xi'an Jiaotong University, China Amine Benzerga, Texas A&M University, United States Yuichi Shintaku, University of Tsukuba, Japan</p>