
Editorial

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In this special issue of *IJTAMM*, state-of-the-art research is published. The research tackles various aspects of solid mechanics. The special issue is composed of five different research papers. In one article, the importance of underlying porosity on the mechanical properties of a solid material is investigated. In another, the effect of free surfaces on the yield strength of metallic materials has been studied. In a third, the fatigue of additively manufactured Inconel is studied using crystal plasticity modelling. In a fourth, a multi-scale study of a polycrystalline microstructure has been modelled numerically. In the last and fifth one, a multi-scale study of shocked aluminium using the discrete dislocation dynamics approach has been performed.

What unites all these studies is not only they are novel and addressing complex issues in a way not done before, but they are multi-scale in nature. Multi-scale studies, which consider different length and time scales are ultimately the way to go in order for researchers to be wholistic, or more real, in their endeavour. Such unifying theme is only fitting for this special issue of the *International Journal of Theoretical and Applied Multiscale Mechanics*. We wish for all related researchers to enjoy reading through this special issue and benefit from its established knowledge in their future works.