



The Fifth International Conference on Damage Mechanics (ICDM5)

Date: 16th - 18th July 2025

Venue: National University of Singapore

Mini Symposium Title	Multiscale and Multiphysics Modelling of Damages in Viscoelastic Materials
Short description on the focus of the Mini Symposium	<p>Viscoelastic materials, such as polymers, human tissues, fresh concrete, bitumen, and asphalt exhibit distinct damage behaviors compared to elastic or brittle materials. Accurately modeling their damage characteristics across multiple dimensions and timescales using multiscale and multiphysics constitutive models remains a significant challenge. This mini-symposium offers a unique platform for researchers, academics, and engineers from various disciplines to engage in discussions on the latest achievements and new insights in this field. Topics of interest include, but are not limited to:</p> <ul style="list-style-type: none"> • Constitutive damage models for viscoelastic materials and composites • Low- and high-cycle fatigue damage in viscoelastic materials • Multiscale experiments and cross-scale modeling of viscoelastic damage and failure • Multiphysics modeling of viscoelastic materials and structural performance • Viscoelastic damage and healing coupled with environmental impacts • Physics-informed artificial intelligence modeling of viscoelastic damage • Computational solvers for damage modeling in viscoelastic materials and structures. <p>This mini-symposium promises to advance our understanding and approach to viscoelastic material behavior through interdisciplinary discussions and collaborations.</p>
Organizers	<p>Yuqing Zhang, Professor, Southeast University, China, zhangyuqing@seu.edu.cn</p> <p>Ong Ghim Ping Raymond, Associate Professor, National University of Singapore, ceeongr@nus.edu.sg</p>