

## MULTIPHYSICS BIOMECHANICS OF BIO- AND BIO-INSPIRED SOFT MATERIALS: THEORY, SIMULATION AND EXPERIMENTS

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### MINISYMPOSIUM

This minisymposium aims to promote international exchange of new knowledge and development in all aspects of biomechanics of bio- and bio-inspired soft materials, from theoretical formulation and development, to numerical computation and simulation, and further to relevant experimental work and engineering application, especially featuring the most advanced biomechanics development of natural biomaterials and bio-inspired soft materials. It includes all classes of material properties (such as strength, elasticity, plasticity, toughness, impact strength, fatigue, fracture, and creep) and their structures, bioactivity, biocompatibility, biostability, self-assembly, and structural hierarchy. Of specific interest are the underlying physics and chemistry governing the functional elements of the soft materials, and these functions include (but are not limited to) structural, thermal, chemical, magnetic, or their interdisciplinary combination. Although the analytical and numerical analyses of these functional elements of soft materials constitute the main highlights of this mini-symposium, important computational studies of others aspects will also be welcome, such as imperfections in soft materials and their resulting limitations, novel processes for advanced soft materials synthesis, engineering of soft material properties, environmental consideration in soft material performance, etc.