Symposium: **Dynamics of Advanced Functional Materials and Structures**
Sponsor: MD Multifunctional Materials TC

Description:

Owing to their exceptional performances and multifunctional behaviors, advanced functional materials and structures are extensively explored in various fields, including material sciences, bio-inspired materials, granular crystals, nanotechnology, acoustic metamaterials, energy materials, and magnetic materials. More recently, the dynamics of advanced functional materials and structures have attracted a growing interest, which may further shape our understanding of the underlying mechanisms and give rise to broader applications. This symposium can foster an open discussion of interdisciplinary topics and innovative discoveries in designing, manufacturing, testing, modeling, and simulating advanced functional materials and structures, and thus offering insights for potential engineering applications. Papers, abstracts, or technical presentations are solicited in the areas including but not limited to:

- Dynamic responses of bio-inspired materials/structures (inspiration, design, fabrication, experiment, modeling, and simulations)
- Advanced computational methods and experimental characterization of dynamic behaviors of functional materials and structures
- Fracture behaviors/failure mechanisms of advanced functional materials and structures
- Stress wave propagation in advanced functional materials and structures, such as granular crystals, acoustic metamaterials, layered structures, composites, and architected materials
- Theoretical models for tailoring the performances of functional materials and structures

Organizers:

Dr. Jun Xu, University of North Carolina at Charlotte
Dr. Yan Li, Dartmouth College
Dr. Akio Yonezu, Chuo University
Dr. Feng Zhu, Johns Hopkins University