9th International Conference on Very High Cycle Fatigue (VHCF9)

Proposed session:

Very High Cycle Fatigue of Additive Manufactured Materials

Session Chairs:

Meysam Haghshenas, University of Toledo, OH, USA (meysam.haghshenas@utoledo.edu)

Wei Li, Beijing Institute of Technology, Beijing, China (lliw@bit.edu.cn)

Andrea Tridello, Politecnico di Torino, Turin, Italy (andrea.tridello@polito.it)

Davide Paolino, Politecnico di Torino, Turin, Italy (davide.paolino@polito.it)

Abstract:

This symposium aims to explore the critical and emerging challenges in the realm of very high cycle fatigue (VHCF) for materials produced through additive manufacturing (AM) processes. AM has revolutionized the manufacturing industry, but its impact on VHCF behavior is not yet fully understood. This symposium will bring together experts, researchers, and practitioners from academia and industry to share their findings, methodologies, and insights on the VHCF behavior of AM materials. Topics will encompass various AM techniques, different materials (metallic & non-metallic), microstructural effects, failure mechanisms, testing methods, environmental effects, and innovative solutions to enhance VHCF performance. This symposium seeks to advance our understanding and application of AM in components where extended fatigue life, beyond 10 million cycles, is expected.