

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

Proposed session:

***Polymer-matrix-composites: Testing facilities, characterization techniques and damage mechanisms***

Session Chairs:

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Abstract:

The fatigue behavior of polymer-matrix composites beyond 10 million cycles is challenging. Major reasons are long-lasting experiments to reach very high cycles in a reasonable time by conventional testing methods. The easy idea to increase the testing frequency from 5 to 1000 Hz or even higher is corresponding to intrinsic dissipation processes of polymers at high strain rates and the availability of testing systems to avoid thermal-related issues during fatigue testing at high frequencies. This session should bring together the latest concepts for VHCF analysis of polymer composites: All ideas from medium to high frequency methods, the needed measuring equipment to study VHCF characteristics of polymer composites and finally new findings on damage mechanisms are welcome.