

## **MECHANICS AND STRUCTURAL RELIABILITY**

## FATIGUE IN MATERIALS: FUNDAMENTALS, MULTISCALE MODELING AND PREVENTION

This symposium features new discoveries and advances in the fields of materials fatigue and life prediction. It brings together research scientists and design engineers from all over the world to present their latest work on:

- Current issues in investigation and simulation of fatigue damage
- Identification of fatigue weak links
- Enhancement of fatigue strength and resistance
- Quantitative relationships among processing, microstructure, environment, and fatigue properties
- Life prediction

This symposium provides a platform for fostering new ideas about development of microstructure-based models to quantify the total life (including fatigue crack initiation and early growth) of a material.

## **ORGANIZERS**

Ashley Spear, University of Utah, USA Jean-Briac le Graverend, Texas A&M University, USA Antonios Kontsos, Drexel University, USA Tongguang Zhai, University of Kentucky, USA

## **SPONSORS**

TMS Structural Materials Division; TMS Materials Processing & Manufacturing Division

TMS Advanced Characterization, Testing, and Simulation Committee; TMS Computational Materials Science and Engineering Committee; TMS Integrated Computational Materials Engineering Committee; TMS Mechanical Behavior of Materials Committee



ABSTRACT DEADLINE IS JULY 1, 2017. SUBMIT ONLINE AT www.programmaster.org/TMS2018. QUESTIONS? CONTACT programming@tms.org