



CALL FOR PAPERS

2016 ASME International Mechanical Engineering Congress and Exposition
Phoenix, Arizona, November 11-17, 2016

Track 3: Advances in Aerospace Technology

Topic 3-10: Impact, Damage and Fracture of Composite Structures

Organized by K.T. Tan (ktan@uakron.edu) and Ali Najafi (ali.najafi@ansys.com)

Sponsored by ASME Aerospace Division Structures and Materials Technical Committee

DESCRIPTION

Composites are commonly employed in modern aircraft structures and in many aerospace applications like engine casing, fan-blades, etc. This is attributed to their high strength-weight ratio and high stiffness-weight ratio, making composites extremely light, yet exceptionally strong. However, the use of composites makes them easily susceptible to impact damage, which often results in complex failure mechanisms like delamination, matrix cracking, fiber debonding, fiber fracture, etc. The issue with impact damage of composite structures remains an open problem and a challenging one.

In this topic, papers related to the broad areas of impact, damage and fracture of composite structures are solicited. Experimental work on impact test methodologies, repair strategies, damage detection/inspection techniques, physical damage phenomena on strain rate effects and ways to mitigate impact damage (ie interlaminar reinforcement) are especially welcomed. Numerical work on novel computational techniques to model impact behavior, impact damage and dynamic characteristics of composites structures are strongly encouraged.

The objective of this topic is to enhance dissemination of information and foster discussion among international researchers regarding the latest state-of-the-art research on impact, damage and fracture of composite structures.

Interested authors should submit abstract(s) (minimum of 400 words with a maximum of 650 words) via the web tool at <http://www.asmeconferences.org/IMECE2016/>. When submitting an abstract, please make sure to select Track 3: Advances in Aerospace Technology and Topic: 3-10 Impact, Damage and Fracture of Composite Structures.

SUBMISSION DEADLINE: March 7, 2016

See Conference website for detailed Publication Schedule
<http://www.asmeconferences.org/IMECE2016/>