University of Colorado at Boulder

AEROSPACE ENGINEERING SCIENCES

Seminar

Timotei Centea

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Manufacturing of High-Performance Composites Using Out-of-Autoclave Methods

Composite materials consisting of a fiber-reinforced polymer matrix are used to create lightweight structures for aerospace and other sectors. However, traditional production methods are complex, costly and environmentally inefficient. This seminar will describe recent research on new manufacturing methods for advanced composites, including out-of-autoclave (OOA) prepreg processing for large structures and liquid molding for new high-temperature systems. Within this context, it will connect fundamental scientific analysis with the development of engineering solutions for improving part quality and process efficiency. Finally, the talk will conclude by discussing major challenges facing composites, including rapid manufacturing, process efficiency and increased sustainability, and outline a research program that can address these issues.

Wednesday, February 24, 2016
12:00 Noon
DLC Collaboratory

Refreshments!

Bio: Dr. Timotei Centea *has been a postdoctoral scholar at the M.C. Gill Composites Center, University of Southern California since 2013. He studied at McGill University, earning a Bachelor's Degree in Honours Mechanical Engineering in 2008 and a Ph.D. in Mechanical Engineering in 2013. His research interests and expertise center on the fundamental science and applied engineering of the manufacturing of composite materials, with emphasis on enabling new applications and increasing process efficiency. Dr. Centea's work has been supported by personal and research funding from government and institutional sources and earned several awards, including for the Best Paper of the 26th Annual Conference of the American Society for Composites (2011).*