



MECHANICAL & MATERIAL COLLOQUIUM

Rigor, Reproducibility, and Trust in Science

by Tracy Costello

(Office of Graduate Studies, University of South Florida)

This presentation explores rigor and reproducibility in science. We analyze the primary factors that create unreliable findings and the subsequent limitations and implications within the current literature. The session concludes by reviewing national efforts and practical strategies to overcome these major obstacles.

Dr. Tracy Costello is the Assistant Dean for Postdoctoral Affairs and Graduate Student Success at University of South Florida. Dr. Costello provides comprehensive leadership, strategic direction, and policy oversight for USF's Office of Postdoctoral Affairs. She develops, delivers, and evaluates career and professional development programming and coaching for postdoctoral scholars and graduate students. She is a national leader in professional development, currently serving on the STEMPeers Board of Directors and formerly serving on National Postdoctoral Association Board of Directors (8 years, as Chair for 2 years). She has served on NIH study sections for over eight years and NSF review panels for two, and regularly presents at national conferences, universities, and professional societies. Dr. Costello earned her PhD in Biomathematics & Biostatistics and Human & Molecular Genetics at MDAnderson UTHealth Graduate School of Biomedical Sciences, was awarded R25 predoctoral and postdoctoral funding for her research while at MD Anderson Cancer Center and has published over 30 articles, a book chapter, and been granted a patent.



Place:
Zoom

Time:
2:00-3:15 PM
Nov. 4, 2025

Zoom Link:

<https://fiu.zoom.us/j/86586055935?pwd=tTnxf3Wp3A4Ta5DnXOVIs2Q686mSEC.1>

<https://mme.fiu.edu/seminar-schedule>

For questions or suggestions, contact Colloquium Organizers Dr. Jiuhua Chen (chenj@fiu.edu) or Dr. Pezhman Mardanpour (pmardanp@fiu.edu)