
Schmitz also serves as an associate editor for the ASME Journal of Manufacturing Science and Engineering. He is the author of three textbooks and over 100 journal publications.

Industrial and Systems Engineering Seminar:
Is all chatter bad?

Abstract: In this presentation, Dr. Schmitz will describe various bifurcations (i.e., dramatic changes in the system behavior) that can occur in milling operations. After a brief introduction to machining dynamics and simulation, he will provide descriptions of periodic sampling of milling signals, Poincaré maps, bifurcation diagrams, and stability lobe diagrams. He will then show experimental evidence of period-2, 3, 6, 7, and 15 bifurcations in milling, as well as a comparison with predictions from time domain simulation. Dr. Schmitz will then examine the possibility of machining under these period-n bifurcation conditions (chatter) to produce acceptable parts at reduced cost.

Biography: Tony Schmitz received his BS in Mechanical Engineering from Temple University in 1993, his MS in Mechanical Engineering from the University of Florida in 1996, and his PhD in Mechanical Engineering from the University of Florida in 1999. Schmitz completed a post-doctoral appointment at the National Institute of Standards and Technology (NIST) and was then employed as a Mechanical Engineer from 1999-2002. During this time, he was also a lecturer at Johns Hopkins University. Schmitz accepted an appointment in the University of Florida’s Department of Mechanical and Aerospace Engineering in 2002 and joined the Mechanical Engineering and Engineering Science Department at the University of North Carolina at Charlotte in 2011.

Date: September 2nd
Time: 1:50 pm - 2:40 pm
Location: 1005 ETB
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