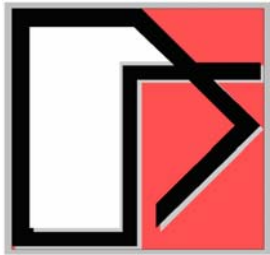


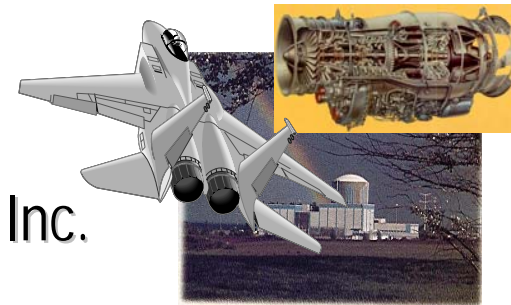
# New Geometry Mistuning Technology for Efficient Gas Turbine Blade Design and Repair

## IES and SPM Reduced-Order Models!



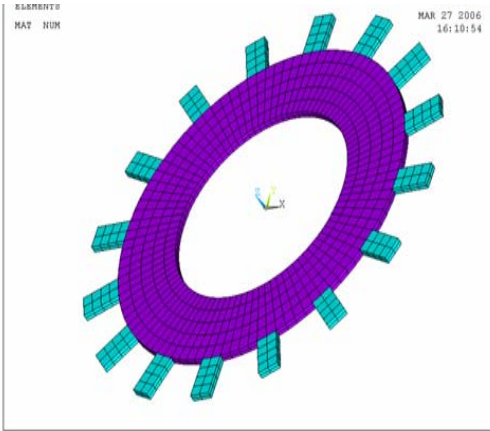
Ghiocel Predictive Technologies Inc.

Ghiocel Predictive Technologies Inc.  
<http://www.ghiocel-tech.com>



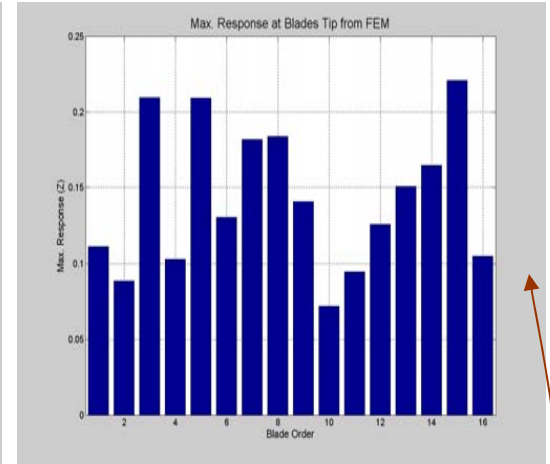
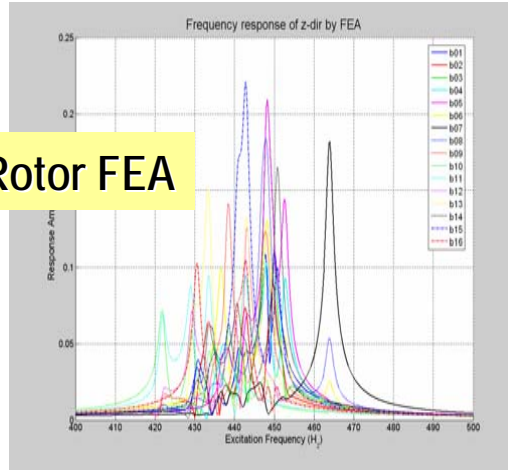
Rochester NY  
September, 2006

# IES vs. SNM

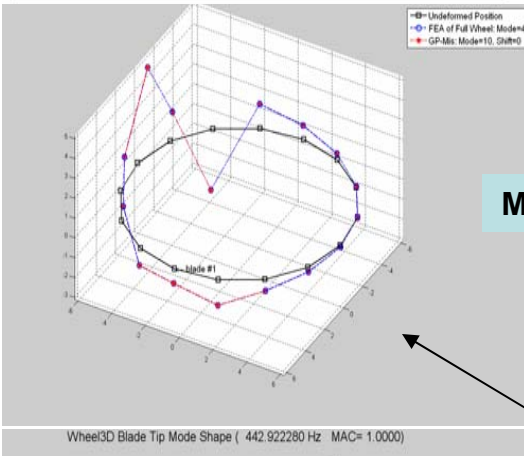


Full Rotor FEA

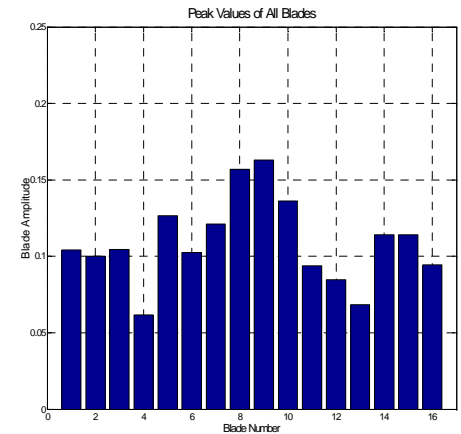
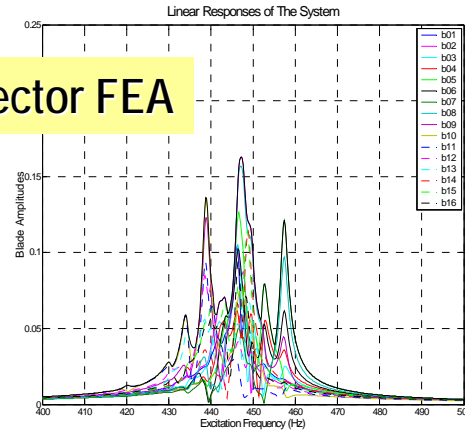
EO=5



SNM/Sector FEA

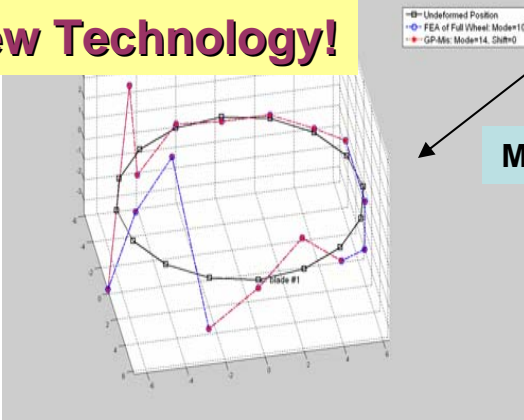


Mode 4

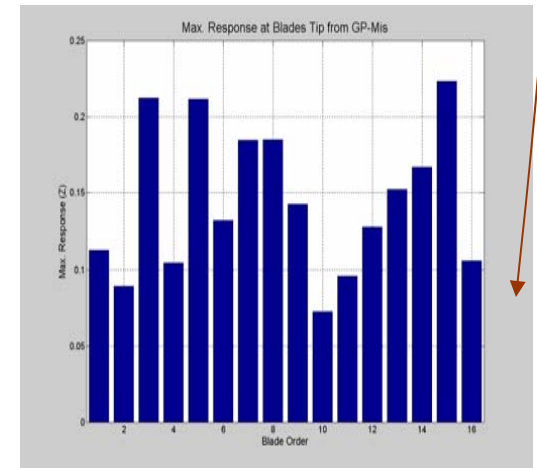
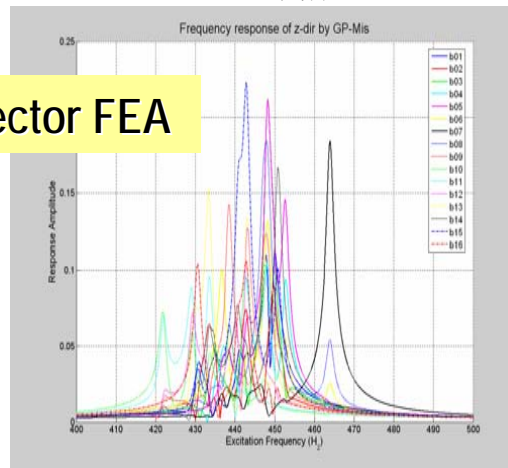


New Technology!

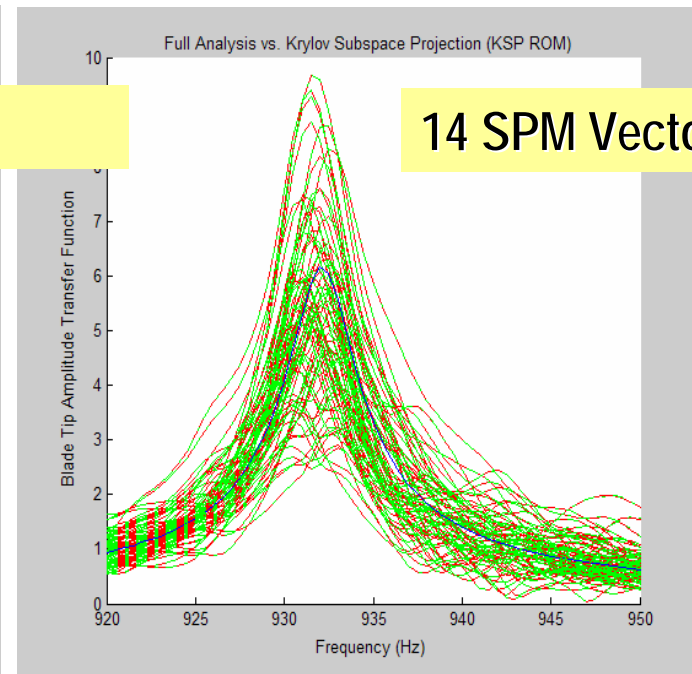
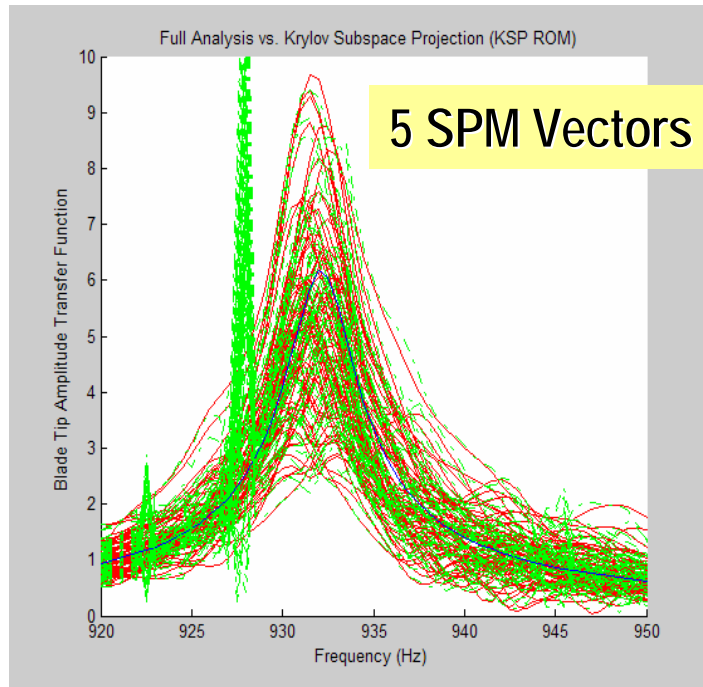
IES/Sector FEA



Mode 10

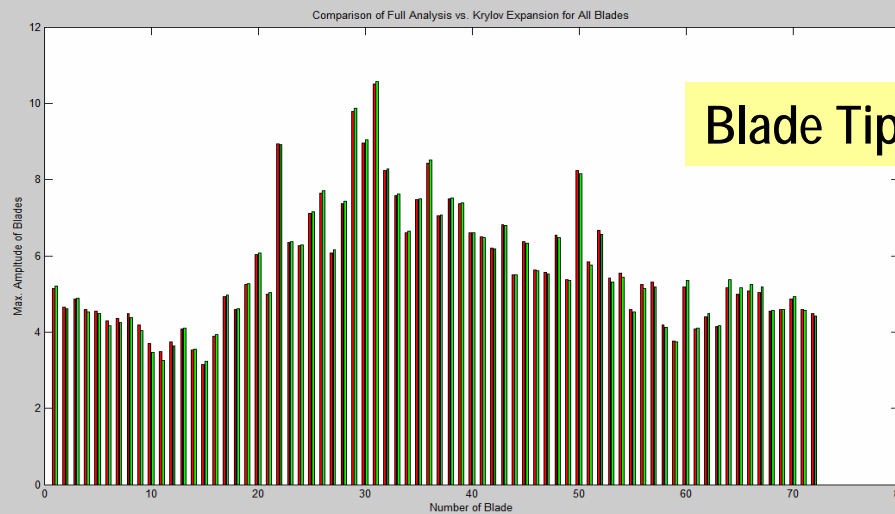


# Mistuning Prediction Using SPM For A 72 Blade Bladed-Disk



**E0=2**

**New Technology!**



(after Ghiocel,  
2005 HCF Conference)