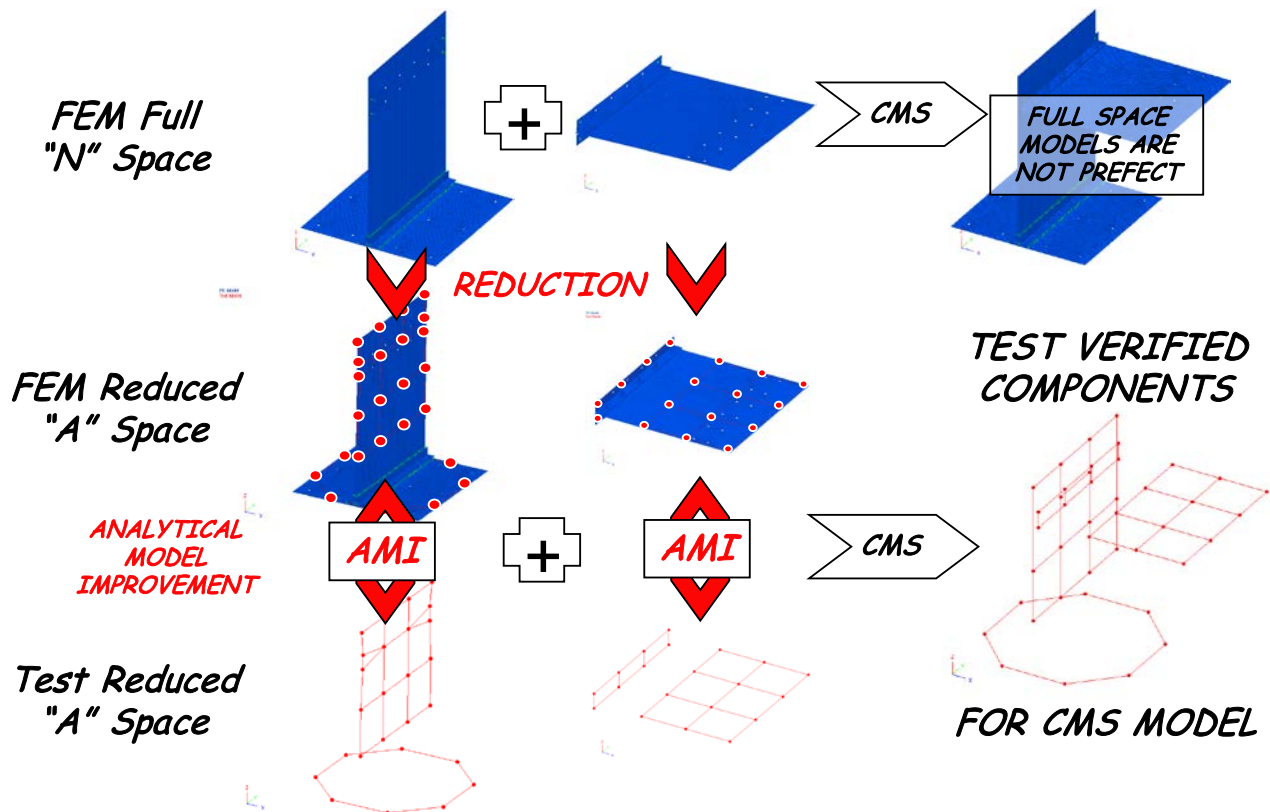## Hybrid Craig Bampton CMS using test Verified Updated Component Models

Craig Bampton Component Mode Synthesis is a widely used analytical tool. However, its use in a test environment is somewhat limited due to the need to measure constraint modes. Using analytical model improvement techniques and data smoothing/conditioning techniques on measured data, component models have been successfully utilized in developing these models from unconstrained component test data. Analytical simulations as well as actual measured test data have been used to illustrate the newly developed approach.