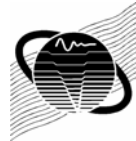


PRACTICAL CONSIDERATIONS IN INA IMPLEMENTATION

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Previous Work

Practical Considerations in INA Implementation

- INA has been demonstrated to work on 'perfect' engine data
- Accuracy can be improved by:
 - Adjusting SVD tolerance
 - Using measured vibration data

Vibro-Acoustics Consortium



Overview

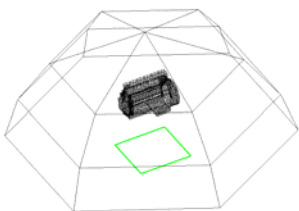
Practical Considerations in INA Implementation

- Practical considerations in INA Implementation
 - Field point selection
 - Effect of experimental errors

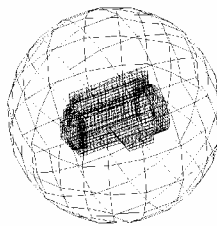


FP Mesh Used In Previous Work

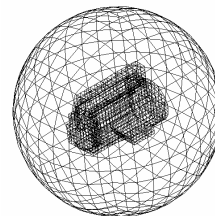
Practical Considerations in INA Implementation



ISO 3744-1994 19 FP



Sphere 1: 152 FP

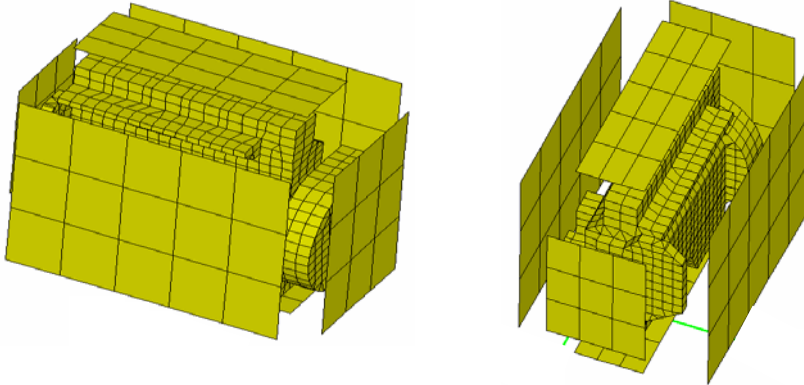


Sphere 2: 602 FP



INA Using Field Point Planes

Practical Considerations in INA Implementation



6 PLANES: 128 FIELD POINTS



Problem

Practical Considerations in INA Implementation

How does one select suitable field points?

- number of field points
- configuration of field points
- distance from the source



Information captured should be **unique** and **complete**



Overview

Practical Considerations in INA Implementation

- Practical considerations in INA Implementation
 - Field point selection
 - Effect of experimental errors



Problem

Practical Considerations in INA Implementation

How does experimental error in sound pressure measurements affect reconstruction accuracy?

