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Rotordynamics
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Where?



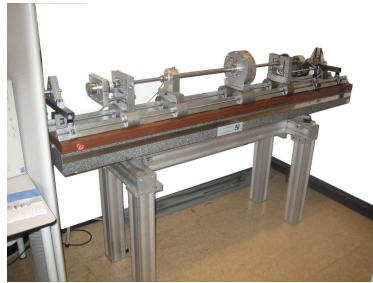
Why?

- Sources of unwanted vibrations
- Affecting lifetime by fatigue
- Severe damage near resonances
- Severe damage due to instabilities
- Undesired radiation of sound
- Fluid-Thermal-Structure interactions
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How?

- Numerical modelling (FEM. modal, harmonic, transient).
- Experimental testing on prototypes.





Main issues to be considered

- Active balancing (control)
- Power harvesting
- Condition monitoring
- Squeeze film damper support
- Magnetic bearing support
- Surface effects for high speed spindles
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Active Balancing

- [YouTube - Ground Resonance - Side View](#)