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Excitation mechanisms of non-linear rotor systems with floating ring bearings - simulation and validation

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Highlights

- Holistic approach for simulation of non-linear dynamic systems
- Investigation of transient rotor-bearing interaction
- Analysis of excitation mechanism due to velocity field of the fluid in the bearings
- Validation against measurement data for full- and semi-floating design Non-linear Campbell diagram of run-up incl. damping representation

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