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Model-Based Interpolation-Iteration Method for Bearing Coefficients Identification of Operating Flexible Rotor-Bearing System

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Highlights

- A double-section interpolation-iteration method was proposed to solve the vibration measurement problem at bearing nodes.
- Numerical investigation shows the method has accurate estimation results, fast convergence, and good robustness against noise.
- The method has good performance in the estimation of the principal force coefficients.
- A specific data procedure for test data has a good ability to handle low signal-noise-ratio case.
- Comparison between predicted and measured data validated this method.

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