DOI	https://doi.org/10.1088/0964-1726/10/3/303
Title	Modal identification of output-only systems using frequency domain decomposition
Background	
Why this paper? How'd you find it?	I'd like to understand frequency domain decomposition (FDD) since it's such a popular and user-friendly technique
Study Objective	How does the use of FDD help determine dynamic properties of structure from output-only vibration measurements due to ambient/white noise excitation?
Intended gaps to fill	Peak picking from FFT of signals is user-friendly but can miss close-frequency modes.
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Funding Source	Probably the universities and structural vibration solutions
Journal / Field	Smart Materials & Structures
Date	2001
Historical Context	Gauss DTFT 1805, Cooley-Tukey FFT 1965
Relationship to SEMM	Modal identification
Methods	
Given:	Ambient Vibration
Find:	Modal frequencies, shapes, damping ratios
Experimental Design	Apply FDD to mathematical model's simulated outputs with no, 10%, and 20% noise. From PSD, obtain mode shapes and frequencies. Use IFFT to reconstruct SDOF autocorrelation histories. From autocorrelation histories, obtain damping ratios.
Test Subjects	Mathematical 2 storey frame model
Results	
Baseline for comparison	True dynamic properties of mathematical model
Metric for comparison	Difference between true and estimated dynamic properties
Difference from baseline	Very close
Conclusions	
Authors'	FDD good for identifying close modes and deals well with noise
Yours	Not sure what they mean by "Higher bias for less dominant modes". Would like to see application to a real physical structure, especially for damping of a non-steel structure
Applications	SHM