Natural frequencies and harmonic responses of multi-story frames using single variable shear deformation theory

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Highlights

- The single variable shear deformation theory (SVSDT) is adopted for dynamic analysis of multi-story frames.
- Natural frequencies, mode shapes and harmonic responses are obtained by using dynamic stiffness method (DSM).
- The results are presented in comparison with Timoshenko beam theory (TBT).
- Harmonic response curves can be used for observation of natural frequencies and anti-resonance frequencies directly