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## STRUCTURAL MECHANICS

### INTERACTION DIAGRAM FOR DYNAMIC STABILITY BY LAPLACE TRANSFORM

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#### **Abstract:**

This paper investigates the dynamic stability of columns. Both axial and follower compressive forces are considered. The formulation and the solution for several end conditions are reported. The closed form solutions are obtained with the help of Laplace Transform. This is verified through analyses of several examples. Results indicate that a cantilever column subjected to the follower force is stronger than the case under axial force. Relevant algorithms for numerical analysis are included. A computer program was written and was used for the analyses of numerical examples.

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