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Title:

Analytic and Numerical Computation of Stability Bound for A Class of Linear Delay Differential Equations Using Lambert Function

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Abstract:

By using Lambert function, the analytical stability bound is obtained in this paper for delayed high order systems with all repeating poles. When the poles are not identical, simple numerical procedures are introduced with the use of the Lambert function. Examples are presented for illustration.

Keywords: Lambert function, delayed differential equation, stability bound, networked control systems.