

# **H-Infinity Error Bounds In Approximating Time-Delay Systems**

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## **Summary**

In this paper, upper and lower bounds on approximating time-delay systems are proposed. Bounds on the infinity norm of the weighted error are obtained when the approximating function is a general rational function, an all-pass function or Pad and Laguerre approximations. In addition, approximations of the weighted errors for both Pade and Laguerre approximating functions are developed. Examples are presented in illustration.

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