

Stability of the third order partial differential equations with time delay

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Abstract: In the present paper, the initial value problem for the third order partial differential equations with time delay in a Hilbert space with self-adjoint positive definite operator is investigated. The main theorem on stability of this problem is established. The application of this theorem is presented. Additionally, illustrative numerical results are provided.

Keywords: Partial differential equation, stability, time delay, difference scheme

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