

# Stability of abstract thermoelastic delayed systems

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Résumé. In this talk, a stabilization problem for a generalized thermoelastic system with delay, known as the  $\alpha$ - $\beta$  system, is addressed. The well-posedness of the system is proven using the semigroup approach. Under certain conditions, exponential and polynomial stability of the system is established via a frequency-domain approach. These theoretical results are then applied to specific examples in thermoelasticity.