Stability of a series of controlled channels with uncertain parameters

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For long open channels it is possible to model the behavior in response to a change in inflow as a delay followed be a reservoir. If we have a series of such models, for instance as a model for the reaches of a primary canal in an irrigation system then it is interesting to examine the possibilities for local control. But even when it has been shown that the system is stable there still remains the problem of uncertainty and in the system parameters and the delays. Moreover, due to degradation of the system, parameters may be time dependent. A method is given to verify stability of the system with uncertain parameters.