

Stability and Performance Analysis of a Large-Scale Aircraft Anti-Vibration Control Subject to Delays Using Model Reduction Techniques

In this paper, the problem of estimating the stability and the frequency limited H_2, Ω -performances of an anti-vibration controller subject to multiple feedback time delays is considered. The contribution of this paper lies in the application of realization-less model reduction techniques on a large-scale aeroservoelastic aircraft model subject to delays in order to obtain a representative simpler model for which the stability and performance metrics can be efficiently computed.