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Suboptimal robust linear Visual Servoing for an underactuated system with delays

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ABSTRACT

This article synthesized suboptimal control for an underactuated system with delays; it also presents a robust stability dependent to delay. Using dynamic programming, an optimal quadratic regulator (LQR) controller is synthesized, which is then applied to a linear matrix inequality, giving delay -dependent sufficient conditions. This delay is analyzed for both time-invariant case and for time-variant case. We presented an application in Visual Servoing for the inverted pendulum.

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