SENSOR VALIDATION FOR FLIGHT CONTROL BY PARTICLE FILTERING (ThuAmOR5)

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Abstract :

In this paper, we address the problem of adaptive sensor validation for flight control. The model−based approaches are developed, where the sensor system is modeled by a Markov switch dynamic state−space model. To handle the nonlinearity of the problem, two different particle filters: mixture Kalman filter (MKF) and stochastic M−algorithm (SMA) were proposed. Simulation results are presented to compare the effectiveness and complexity of MKF and SMA methods.

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