

## **Rotor state feedback in the design of rotorcraft attitude control laws**

Helicopter flight control law design including rotor state feedback (RSF) is considered. A mathematical model suitable for analysis and design of RSF control systems is obtained and a structured H<sub>∞</sub> approach to the problem is proposed, capable of guaranteeing stability and performance robustness. The framework also encompasses fault tolerance with respect to failures of the rotor state sensors. Simulation results comparing the proposed approach to results obtained using conventional attitude control laws are presented and discussed.