

Robust Quasi NID Aircraft 3D Flight Control Under Sensor Noise .

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Abstract: In the paper the design of an aircraft motion controller based on the Dynamic Contraction Method is presented. The control task is formulated as a tracking problem for Euler angles, where the desired decoupled output transients are accomplished under assumption of high-level, high-frequency sensor noise and incomplete information about varying parameters of the system and external disturbances. The resulting controller has a simple form of a combination of a low-order linear dynamical system and a matrix whose entries depend nonlinearly on certain measurable flight variables.

Keywords:

AMS Subject Classification: