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Fault processing policy based on dual-redundant control law for aero-engine control sensors

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中文摘要:

A fault processing policy was proposed for the circumstance under which all the dual-redundant closed-loop feedback control sensors went wrong. This policy was based on dual-redundant control law and may maintain the performance of turbofan engines. When pair of controlling sensors went wrong and the primary control law was unable to implement, control system performs the backup control law instead of the primary one so that the fault sensors were isolated from the closed control loop. This fault processing policy may not only avoid increasing engine weight and cost with the additional sensors hardware, but also avoid the error of analytical sensor signal. It can improve the engine mission reliability and control quality.

英文摘要:

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