Whole service time SHM damage quantification and prognosis

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Abstract：Existing damage quantification and prognosis models typically rely on prior data acquired from ground design and tests. However, an individual aircraft is subject to diverse uncertainties throughout its whole service time, such as time-varying environmental and operational conditions, different flight missions, and different damage morphologies. How to improve whole service time SHM damage quantification and prognosis accuracy is vital to promote the wide application of SHM. This presentation reports several developments on this important issue.