

The Research of An Improved Data Association Technique

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ABSTRACT

The way to hold the targets' kinematic quantities is an important subject in the multiple targets tracking system. The key developments of this subject are data association techniques and maneuvering targets' estimation algorithm. In this thesis, an improved algorithm for tracking multiple maneuvering targets using a new approach has been developed. This algorithm is implemented with an adaptive filter consisting of a data association technique denoted Competitive Hopfield Neural Networks together with Kalman filters as an adaptive maneuvering compensator. With this approach, both data association and targets maneuvering problems can be solved simultaneously.

Keywords : Data association ; Competitive Hopfield Neural Network

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