

# The Application of Neural Network Approach to Radar Systems

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## ABSTRACT

Multiple target tracking algorithm plays an important role in radar systems. It will obtain the relations between radar measurements and existing tracks after applying the tracking algorithm. A new approach to multiple target tracking algorithm based on the Neural Network approach is investigated. Moreover, it applies an adaptive tracking procedure in order to solve both the data association and the target tracking problems simultaneously. With this approach, the matching between radar measurements and existing target tracks can achieve a global consideration. Computer simulation results indicate that this approach successfully solves the problem of tracking multiple maneuvering targets.

Keywords : Multiple target tracking algorithm ; Data association ; Competitive Hopfield Neural Network

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