



## 基于支持向量机的弹道识别及其在雷达弹道外推中的应用 无

**摘要:** 支持向量机(SVM)是一种基于结构风险最小化原理的分类技术,也是一种具有很好泛化性能的回归分析方法。本文用SVM分类方法对弹道类型进行识别,用SVM回归方法对不同类型的弹道数据分别建模,进而对弹道起点进行有效预测。仿真结果表明,该方法识别精度高,在SVM弹道识别的基础上,还可以有效提高弹道外推精度。

**关键词:** 人工智能; 炮位侦查雷达; 弹道识别; 支持向量机; 弹道外推

**中图分类号:** TJ012

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## Support Vector Machine based Trajectory Recognition with Applications in the Adjustment of Radar Tra

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**Abstract:** Support vector machine(SVM) is a technique of classification based on the structural risk minimization principle, and a regression method with fine ability of generalization. In this paper, the SVM classification technique is first applied to recognize trajectories. Then the SVM regression method is employed to model the trajectory data. Thus the initial point can be effectively predicted. Simulation experiments demonstrate that the proposed algorithms has high precision, and the accuracy of trajectory prediction can be further improved based on trajectory recognition.

**Key Words:** artificial intelligence; emplacement radar; trajectory recognition; support vector machine; traject

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