

## 基于LS-SVM组合预测的地空导弹发射车液压系统油液污染度预

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摘要:

基于组合预测的思想, 将最小二乘支持向量机 (LS-SVM) 用于确定组合预测的函数关系, 提出了基于LS-SVM的非线性 (O) 和K-重交叉验证实现了LS-SVM参数的优化选取。最后利用提出的方法对某导弹发射车液压系统的液压油污染度进行优越性。

关键词: 组合预测; 最小二乘支持向量机; 粒子群优化; 油液污染度

## LS-SVM Based Nonlinear Combining Forecast for Fluids contamination of hydraulic sys

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**Abstract:**

With the concept of combining forecast, Firstly, we proposed a so-called 'least squares support vector machine (LS-SVM) which use LS-SVM to model the nonlinear relationship between the components and combine. Then, for the purpose of improving the ability of the LS-SVM, particle swarm optimization algorithm (PSO) combined with k-fold cross validation (CV) was used for. Lastly, we use the proposed method to forecast the fluids contamination of a hydraulic system in missile launcher, simulation

**Keywords:** combining forecast, least squares support vector machine (LS-SVM), particle swarm optimization (PSO), fluids contamination

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