

基于支持向量机的MEMS陀螺仪随机漂移补偿

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摘要：

针对传统方法的不足，将支持向量机应用于MEMS陀螺仪随机漂移的补偿。建立了支持向量机预测模型，通过相空间一个辅助的相空间中进行模型的训练和测试，并使用最优化算法得到了核函数和预测模型的各项参数。训练和预测结合有效的MEMS陀螺仪随机漂移补偿方法。

关键词：MEMS陀螺仪；支持向量机；相空间重构；随机漂移

Random Drift Compensation of MEMS Gyroscope Based on Support Vector

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Abstract:

Applied support vector machine to the compensation of MEMS gyroscope random drift to overcome the disadvantages of traditional methods. A prediction model is established firstly, in order to train and test the model, then embedding the scalar gyroscope random drift technology of phase construction. Get the best parameters of core function and prediction model by using the optimization algorithm that this method can predict the gyroscope random drift well; it is an effective compensation method to MEMS gyroscope random drift.

Keywords: MEMS gyroscope; support vector machine; phase construction; random drift

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