

抗野值鲁棒滤波在微惯性组合导航中的应用

作者: 高宗余, 方建军, 郭文荣

单位: 北京联合大学自动化学院 北京交通大学电气工程学院

基金项目: 50805004

摘要:

在鲁棒滤波应用过程中, 如果量测序列含有野值, 将会严重影响滤波精度。针对这一问题本文提出一种新的剔除野值特性, 通过最细尺度上的小波系数来检测野值点, 然后基于信息扩散原理, 采用替代方法, 对含有单个或连续野值目的。通过对基于MEMS的车载微惯性SINS/GPS组合导航的仿真表明, 新算法能够有效的检测出野值, 并在野值单个

关键词: 野值检测; 野值剔除; 小波变换系数; 信息扩散; 新息修正

The Application of Robust Filtering for Outliers Restraining in MEMS Integrat

Author's Name:

Institution:

Abstract:

In the light of practical application the outliers makes the estimation of filtering inaccurate. The paper proposes a new outlier of new information, first use the coefficient characteristic of wavelet transform, The wavelet coefficient of the fine scale is u information pervasion theorem is used to correct the single outlier or series outliers. The simulation of MEMS-SINS/GPS int system shows that the new algorithms can detective outliers effectively and ensure the precision of filtering exactly.

Keywords: outliers detecting; outliers eliminating; wavelet transform coefficients; information pervasion; innovation revising

投稿时间: 2011-11-18