论文　　　　　　　　　　最新目录 ｜ 下期目录 ｜ 过刊浏览 ｜ 高级检索　　　　<< Previous Articles | Next Articles >>

GPS姿态测量的载波相位整周模糊度快速解算

郑庆晖, 张育林

国防科技大学航天与材料工程学院 湖南长沙 410073

OTF AMBIGUITY RESOLUTION IN GPS BASED ATTITUDE DETERMINATION

ZHENG Qing-hui, ZHANG Yu-lin

Institute of Astronautics and Material, National University of Defense Technology, Changsha 410073, China

摘要	参考文献	相关文章

Download: PDF (139KB)　　HTML 0KB　Export: BibTeX or EndNote (RIS)　　Supporting Info

摘要 根据 ARCE方法可以将模糊度搜索空间从所观测到的 m颗卫星的 $m-1$维降为 3维独立整周模糊度搜索空间,结合整数高斯变换及基线长度约束减小模糊度搜索空间,利用 Cholesky分解提高模糊度搜索效率,实验结果证明该方法能够快速解算整周模糊度适于实时姿态确定等应用。

关键词： 载波相位　整周模糊度　姿态确定　GPS　Cholesky分解

Abstract： From ARCE concept the ambiguity search space can be decreased from $m-1$ dimensions to three dimensions in the condition that m satellites were observed, then the integer Gaussian transformation was used to reduce the ambiguity search space, and all the information like the length of the baseline was also used to decrease the search space. Finally, Cholesky factorization could make the process of searching more efficient. Experiment results show that this method can be used in attitude determination.

Keywords： ca rr ier phase　integer ambiguity　attitude determination　GPS　Cholesky factorizat ion

Service
▸ 把本文推荐给朋友
▸ 加入我的书架
▸ 加入引用管理器
▸ Email Alert
▸ RSS

作者相关文章
▸ 郑庆晖
▸ 张育林

引用本文：

郑庆晖;张育林. GPS姿态测量的载波相位整周模糊度快速解算[J]. 航空学报, 2002, 23(3): 272-275.

ZHENG Qing-hui;ZHANG Yu-lin. OTF AMBIGUITY RESOLUTION IN GPS BASED ATTITUDE DETERMINATION[J]. Acta Aeronautica et Astronautica Sinica, 2002, 23(3): 272-275.