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论文

GPS-DInSAR集成监测的改进定权方法与仿真实验分析

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摘要：

分析了集成GPS-DInSAR监测地表三维形变的解析优化法在定权中存在的问题，提出以高精度GPS观测值为约束评价DInSAR测量精度和GPS插值精度、进而对二者定权的方法。模拟实验证明，所提方法能正确确定DInSAR测量值和GPS插值的权，且计算简单。采用改进定权方法的解析优化法能在三维方向取得更佳的集成效果。

关键词： GPS；DInSAR；集成；定权

Improved determining weight method for GPS DInSAR integration monitoring and simulation experiment analysis

Abstract:

The analytical optimization algorithm which integrates GPS and DInSAR to monitor three dimensional surface deformation was analyzed and its shortcomings in determination of weight were given.An improved determining weight method was presented，which used the high accurate GPS as constrain to evaluate DInSAR measurement accuracy and GPS interpolation accuracy，then weighed the DInSAR and GPS measurements.The simulation results show that the proposed method can correctly weight DInSAR measurement and GPS interpolation and is simple in realization.The analytical optimization algorithm using the improved determining weight method can offer the better results in the north，east and up direction.

Keywords: GPS;DInSAR;integration;determining weight

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