COMPARISON OF ERROR PROPAGATION IN BLOCK ORIENTATION: AN ANALYTICAL APPROACH

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ABSTRACT:

Many researchers have reported comparisons between the error propagation properties of direct orientation and indirect orientation (aerial triangulation using ground control points). The results of these comparisons have shown that direct orientation has the potential for use in projects requiring all but the highest accuracy. However, all of these empirical comparisons are specific to the particular configuration of the image block and sensor systems and do not provide an explicit analytical comparison of the general case. In this paper, we present an analytical comparison of the ground point precision obtained from direct and indirect orientation methods within the framework of a block-bundle adjustment in a stochastically constrained Gauss-Markov Model.

TOPIC: Data fusion and data assimilation
ALTERNATIVE TOPIC: Data fusion and data assimilation