Spatial distribution of control points

Oscar Ricardo Vergara ¹
Alejandro Orgambide Frery ²
Júlio Cesar Lima d'Alge ²

- ¹ Universidad Nacional del Sur UNS Argentina
- ² Instituto Nacional de Pesquisas Espaciais INPE Divisão de Processamento de Imagens — DPI

Abstract

We present some Monte Carlo results about the spatial distribution of control points used in the geocodification of satellite images in the Brazilian Amazon. This information aims at establishing criteria for the choice of number, quality and spatial distribution of control points (CPs) to be used in image matching techniques. Some theory about the statistical analysis of spatial point patterns is recalled, as an aid to a future formulation of this problem in terms of an experimental design problem.

Key words: accuracy, algorithm, image matching, image processing, registration, simulation, theory.