



An Automated Parallel Image
Registration Technique Based on the
Correlation of Wavelet Features

NASA Technical Reports Server
(NTRS), et al., Jacqueline LeMoigne



DOWNLOAD PDF

An Automated Parallel Image Registration Technique Based on the Correlation of Wavelet Features (Paperback)

By Jacqueline Lemoigne

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.With the increasing importance of multiple platform/multiple remote sensing missions, fast and automatic integration of digital data from disparate sources has become critical to the success of these endeavors. Our work utilizes maxima of wavelet coefficients to form the basic features of a correlation-based automatic registration algorithm. Our wavelet-based registration algorithm is tested successfully with data from the National Oceanic and Atmospheric Administration (NOAA) Advanced Very High Resolution Radiometer (AVHRR) and the Landsat/Thematic Mapper(TM), which differ by translation and/or rotation. By the choice of high-frequency wavelet features, this method is similar to an edge-based correlation method, but by exploiting the multi-resolution nature of a wavelet decomposition, our method achieves higher computational speeds for comparable accuracies. This algorithm has been implemented on a Single Instruction Multiple Data (SIMD) massively parallel computer, the MasPar MP-2, as well as on the CrayT3D, the Cray T3E and a Beowulf cluster of Pentium workstations.



READ ONLINE
[8.89 MB]

Reviews

This publication could be worthy of a study, and superior to other. it was writtern extremely perfectly and beneficial. I am just easily could possibly get a delight of reading through a published pdf.

-- Prof. Bernie Torphy

I just started off reading this article ebook. It is actually writter in basic words and not confusing. I am just very happy to let you know that this is the best ebook i actually have read through inside my individual daily life and can be he finest ebook for possibly.

-- Dayne Johns