

低灰度高光谱有损图像快速配准方法研究

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摘要: 提出一种基于 SIFT 的低灰度高光谱有损图像快速配准方法.该方法先对基准低灰度高光谱有损图像和待配准低灰度高光谱有损图像进行降采样,对降采样的基准低灰度高光谱有损图像和待配准的低灰度高光谱有损图像分别提取 SIFT 特征点,通过对基准低灰度高光谱有损图像的同名特征点进行有效匹配,得到若干数量的低灰度高光谱有损图像的控制点,最终利用三角网对低灰度高光谱有损图像进行局部匹配,并且在三角网内重复进行低灰度高光谱有损图像的三角网匹配.实验结果表明,所提方法不仅控制了特征点数量,还减少了图像配准的匹配时间,在有效提高图像匹配准确度的同时,也对特征匹配的效率有较大的提高.

关键词: 低灰度; 高光谱; 图像快速配准

Research on Fast Registration Method for Low Gray and High Spectral Lossy Image

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Abstract: This paper presents a SIFT based low gray hyperspectral image lossy fast registration method. This method on the basis of low gray hyperspectral image lossy image registration and low gray hyperspectral image lossy down sampling, to reduce sampling benchmark Gray hyperspectral image lossy and to measure the low gray hyperspectral image lossy SIFT features are extracted, by Hyperspectral on the basis of low gray effectively matching feature points of image, get a certain number of low gray hyperspectral image control point loss, the final use of triangulation of low gray a hyperspectral image in local matching, and triangulation in repeated low gray hyperspectral triangulation image matching. The experimental results show that the proposed method not only control the number of the feature points, but also reduce the matching time of image registration, to effectively improve the image matching accuracy at the same time, also on the efficiency feature matching Have greater improvement.

Key words: low gray level; hyperspectral; image registration

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