# A Research of The Method for Eliminating The Cloud in The Satellite Remote Sensing Image Based On RBF Function

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Abstract: In the satellite image of remote sensing, it is one of the most common noises that the cloud covers. To the remote sensing platform of time low resolution ratio, It is one of the important factors causing the remote sensing data to lack that the cloud covers. So how to reduce or get rid of effectively adverse influence of the cloud, it is an efficient important way to increase remote sensing data, it is an important problem in the advanced image processing of remote sensing, too. Filtering way of the method of digital image processing that adopted mostly in the past. Because of the complexity and variety that the cloud covers, the result of getting rid of the cloud is always very difficult to reach briefly from high frequency and low frequency characteristic angle. We proposes firstly the technology of image inpainting to use in the image processing field of remote sensing.With analysing the characteristic of the thick cloud mass, This paper presents a image inpainting algorithms based on RBF(Radial Basis Funcionts). The algorithm automatically detects contours of the mask and finds appropriate regions to construct the RBF. According to these RBF resampling, the algorithm can nicely fix the regions interfered by the cloud. Experiments show that our algorithm can fix a large variety of images effectively and obtain satisfied results.