Abstract

This paper investigates the use of different functions for the digital elevation model input to the watershed transform. The use of gradient information is the most frequent one, but its strength varies due to illumination variations. We investigate the two major classes of input functions, distance maps and the gradient, their combinations, and propose an different function using soft clustering memberships that is not covariant with illumination.

References

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**Index Terms**

Computer Science  
Image Processing

**Keywords**

watershed transform  
digital elevation model  
partial class memberships  
 fuzzy c-means  
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