
Recognizing hierarchical watersheds

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Abstract

Combining hierarchical watersheds has proven to be a good alternative method to outperform individual hierarchical watersheds. Consequently, this raises the question of whether the resulting combinations are hierarchical watersheds themselves. Since the naive algorithm to answer this question has a factorial time complexity, we propose a new characterization of hierarchical watersheds which leads to a quasi-linear time algorithm to determine if a hierarchy is a hierarchical watershed.

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