

Angular Pattern and Binary Angular Pattern for Shape Retrieval

Abstract:

In this paper, we propose two novel shape descriptors, angular pattern (AP) and binary angular pattern (BAP), and a multiscale integration of them for shape retrieval. Both AP and BAP are intrinsically invariant to scale and rotation. More importantly, being global shape descriptors, the proposed shape descriptors are computationally very efficient, while possessing similar discriminability as state-of-the-art local descriptors. As a result, the proposed approach is attractive for real world shape retrieval applications. The experiments on the widely used MPEG-7 and TARI-1000 data sets demonstrate the effectiveness of the proposed method in comparison with existing methods.