

Extraction of Similarities and Differences in Human Behavior using Singular Value Decomposition

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Abstract: Human behavior has a structure consisted of similarities and differences. Similarities are motion pattern which are observed universally and are independent of individuals. Differences are particular characters found in individual motions and can represent individuality. In this paper, a method to extract similarities and differences in human motion data using singular value decomposition is proposed. Moreover, how to analyze the extracted characteristic motion is also described. The proposed method is applied to several typical types of human behaviors to demonstrate the effectiveness.

Keywords: motion analysis, similarities and differences in human behavior, singular value decomposition
