应用

基于运动特征的视频检索

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摘要：

运动特征是描述视频内容的一种重要的信息，也是视频区别于图像数据所特有的内容，要想对视频内容进行全面的刻画,运动特征是必不可少的一个方面。本文提出了一种基于时空运动特征的视频检索方案。根据离散的球的位置，获取台球原始运动轨迹，进而修正得到完整的台球运动轨迹；以运动轨迹点序列作为运动特征，同时提出了基于运动轨迹点序列顺序匹配的视频段分步检索方法：首先根据碰撞点将运动轨迹分段，然后对检索视频的轨迹分段重采样，最后利用轨迹模型匹配方法实现检索。实验结果表明，我们提出的方案实现了一定程度的语义检索，能够较好地检索到符合人们主观理解的斯诺克运动轨迹的视频内容。

关键词： 运动特征； 视频检索； 运动轨迹； 重采样

Motion feature based video retrieval

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Abstract:

Motion feature is one of important clues representing content of a video sequence, and also it is the typical content that distinguished video data from image data. It is an essential aspect and while extracting the comprehensive description of the video content. In this paper we propose a spatial-temporal motion feature based video retrieval scheme. The initial trajectory of balls is obtained, according to the discrete location of the ball. And then the trajectories are modified by the collision point. The trajectory dots sequence is considered as feature of motion, at the same time, we propose a video clip retrieval method by step which is based on the trajectory dots sequence order match: firstly, the trajectory is dived up into several sections, according to the collision point, and then the trajectory segments of the video are re-sampled, finally, the trajectory model matching method is used to achieve retrieval. The experimental results show that the proposed scheme could query exactly and achieve semantic content retrieval to some extent, it provides the retrieval result consistent with the snooker video's moving trajectory content of people's subjective understanding.

Keywords: motion feature video retrieval trajectory resample

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