

20AM2C Multimedia Application

Friday, May 20, 10:40–12:20, Room C

*Chair: Moncef Gabbouj, Tampere University of Technology, Finland***20AM2C-1 Transform-Based Layered Query System for Image Indexing and Retrieval***Esin Guldogan, Tampere University of Technology, Finland**Moncef Gabbouj, Tampere University of Technology, Finland*

This paper presents the Transform-Based Layered Query (TLQ) System, which is proposed as a new image querying scheme aiming at decreasing retrieval processing time and run-time memory consumption. The TLQ system contains abstract layers in both indexing and querying phases. These layers are based on linear or nonlinear transformations that reduce image and feature data dimensions. The proposed TLQ system is integrated into MUVIS content-based multimedia indexing and retrieval framework, and its theoretical advantages are verified with experimental studies. It is shown that 75% performance gain can be achieved depending on the transformation parameter.

20AM2C-2 An Effective Video Matching Algorithm for Adaptive Video Fingerprints*Xin-Yue Zhuang, Beijing University of Technology, China**Ke-Bin Jia, Beijing University of Technology, China**Yi-zhe Li, Beijing University of Technology, China**Qing Zhu, Beijing University of Technology, China*

The proliferation of video content makes video similarity detection an indispensable tool in video management, searching, and navigation. In this paper, we propose a new algorithm targets on detecting given video clips from TV programs. The algorithm has the following two advantages. Firstly, the algorithm is simple and can be implemented in realtime. Secondly, the algorithm is robust against TV channel noise and video re-editing, which is frequently seen on TV programs, for example the slow motion. Our algorithm improved the Video Fingerprints, a region based video feature, with an adaptive computation. And a novel Dynamic Time Warping algorithm is used to cope with noise and video re-editing. Experiment results demonstrate the effectiveness of the algorithm.