

CONFERENCE PAPERS

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Hidden Markov Model-based Musical Beat Tracking

(Submitted) Yu Shiu and C.-C. Jay Kuo, "A Hidden Markov Model Approach to Musical Beat Tracking," *IEEE International conference on Acoustics, Speech and Signal Processing (ICASSP 08')*, 2008

Musical Beat Tracking using Kalman Filter and Probabilistic Data Association

(Submitted) Yu Shiu and C.-C. Jay Kuo, "Musical Beat Tracking via Kalman Filtering and Noisy Measurements Selection," *IEEE International Symposium on Circuits and Systems (ISCAS 08')*, 2008

Yu Shiu and C.-C. Jay Kuo, "On-line Music Beat Tracking with Kalman Filtering and Probability Data Association (KF-PDA)," *IEEE International Conference on Consumer Electronics (ICCE 08')*, Jan 2008

Yu Shiu and C.-C. Jay Kuo, "A Modified Kalman Filtering Approach to On-Line Musical Beat Tracking," *IEEE International conference on Acoustics, Speech and Signal Processing (ICASSP 07')*, Apr, 2007

Yu Shiu and C.-C. Jay Kuo, "On-Line Musical Beat Tracking with Phase-Locked-Loop (PLL) Technique," *IEEE International Conference on Consumer Electronics (ICCE 07')*, Jan 2007

Audio Source Separation using ICA and Matching Pursuit

(Submitted) Namgook Cho, Yu Shiu and C.-C. Jay Kuo, "Efficient Music Representation with Content Adaptive Dictionaries," *IEEE International conference on Acoustics, Speech and Signal Processing (ICASSP 08')*, 2008

Namgook Cho, Yu Shiu and C.-C. Jay Kuo, "Audio Source Separation with Matching Pursuit and Content-Adaptive Dictionaries (MP-CAD)," *IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA 07')*, Oct 2007

Namgook Cho, Yu Shiu and C.-C. Jay Kuo, "An Improved Technique for Blind Audio Source Separation," *IEEE International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP 06')*, Dec 2006

Musical Onset Detection from Classics Instruments

Wan-Chi Lee, Yu Shiu and C.-C. Jay Kuo, "Musical Onset Detection with Joint Phase and Energy Features," *IEEE International Conference on Multimedia and Expo (ICME 07')*, July 2007

Detection of Similar Musical Sections and Musical Structure Analysis

Yu Shiu, Hong Jeong and C.-C. Jay Kuo, "Similarity Matrix Processing for Music Structure Analysis," *1st ACM workshop on Audio and Music Computing Multimedia (under ACM*

Multimedia 06'), Oct 2006

Yu Shiu, Hong Jeong and C.-C. Jay Kuo, "Similar Segment Detection for Music Structure Analysis via Viterbi Algorithm," *IEEE International Conference on Multimedia and Expo (ICME 06')*, Jul 2006

Yu Shiu, Hong Jeong and C.-C. Jay Kuo, "Musical structure analysis using similarity matrix and dynamic programming," *SPIE Optical Image 05', Proceedings Vol. 6015, Multimedia Systems and Applications VIII*, Oct 2005

Music Genre Classification and Audio Fingerprinting

Yu Shiu and C.-C. J. Kuo, "Music Genre Classification via Likelihood Fusion from Multiple Feature Models," *SPIE Electronic Image 05', Proceedings Vol. 5682 Storage and Retrieval Methods and Applications for Multimedia*, Boston, Jan 2005

Yu Shiu and C.-C. Jay Kuo, "Music Genre Classification Using Temporal Domain Features," *SPIE ITCOM 04', Proceedings Vol. 5601 Internet Multimedia Management Systems V*, San Jose, Oct 2004

Yu Shiu, Chia-Hung Yeh and C. C. J. Kuo, "Audio Fingerprint Extraction for Content Identification," *SPIE ITCOM 03', Proceedings Vol. 5242 Internet Multimedia Management Systems IV*, San Jose, Nov 2003

JOURNAL PAPERS

(In Preparation) Yu Shiu and C.-C. Jay Kuo, "A Hidden-Markov-Model-based Approach to Musical Beat Tracking", 2008

(In Preparation) Yu Shiu and C.-C. Jay Kuo, "Musical Beat Tracking via Kalman Filtering and Advanced Probabilistic Data Association," 2008

PATENT

Yu Shiu, Chia-Hung Yeh, Hsuan-Huei Shih & C. -C. Jay Kuo, "Highlight Detecting Circuit and Related Method for Audio Feature-based Highlight Segment Detecting," Taiwan (094123184), US (10/908,308) and China (200510089326.7) patents pending.

DOCTORAL DISSERTATION

Yu Shiu, "Digital Signal Processing Techniques for Music Structure Analysis," University of Southern California, Aug 2007