UW CENTER FOR
PATTERN ANALYSIS AND MACHINE INTELLIGENCE

GRADUATE SEMINAR SERIES

Video coding mode decision with optimal stopping

Speaker: Tiesong Zhao

Date: December 12, 2012

Time: 4:00 pm – 4:30 pm

Place: E5 (4128) Refreshments will be served

Abstract :

Fast mode decision algorithms have been widely used in the video encoder implementation to reduce encoding complexity yet without much sacrifice in the coding performance. Optimal stopping theory, which addresses early termination for a generic class of decision problems, is adopted in this work to achieve efficiency mode decision in video coding. A constrained model is developed with optimal stopping, and the solutions to this model are employed to initialize the candidate mode list and predict the early termination. Comprehensive simulation results are conducted to demonstrate that the proposed method strikes a good balance between low encoding complexity and high coding efficiency.

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