Assessing the segmentation performance of pairwise and triplet Markov models

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PII: S0165-1684(17)30420-6
DOI: 10.1016/j.sigpro.2017.12.006
Reference: SIGPRO 6675

To appear in: *Signal Processing*

Received date: 7 July 2017
Revised date: 4 October 2017
Accepted date: 4 December 2017

Highlights

- Two extensions of hidden Markov models (HMMs), namely pairwise Markov models (PMMs) and triplet Markov models (TMMs), are reminded.
- The impact of approximating PMMs and TMMs by the classic hidden Markov models (HMMs) is analyzed quantitatively in the case of Gaussian and gamma observation distributions.
- Experiments demonstrated that a PMM or TMM cannot be approximated by a classic HMM without a loss of accuracy.