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Title of the contribution	Temporal sliding window based action spotting by using dense features and super vector encoding
General method description	<ol style="list-style-type: none"><li data-bbox="600 247 1715 344">1. We firstly conduct sliding window scanning along the temporal dimension of video.<li data-bbox="600 361 1846 458">2. For each sliding window, we extract dense features, namely HOG, HOF, MBHx, and MBHy.<li data-bbox="600 475 1875 572">3. We use super vector based encoding methods (Fisher vector) to aggregate the information from the selected window.<li data-bbox="600 589 1779 629">4. We train a linear SVM to classify the human action class.
References	<ol style="list-style-type: none"><li data-bbox="600 968 1875 1065">1. H. Wang, A Klaser, C Schmid and CL Liu, Action recognition by dense trajectories, in CVPR 2010.<li data-bbox="600 1082 1846 1236">2. J. Sanchez, F. Perronnin, T. Mensink, and J. Verbeek, Image Classification with the Fisher Vector: Theory and Practice, in IJCV 2013.

Describe data preprocessing techniques applied (if any)	No.
Describe features used or data representation model (if any)	Dense trajectories
Dimensionality reduction technique applied (if any)	PCA dimension reduction
Temporal clustering approach (if any)	No.

Temporal segmentation approach (if any)	No.
Gesture representation approach (if any)	Fisher vector of dense trajectories.
Classifier used (if any)	SVM
Large scale strategy (if any)	No.

Transfer learning strategy (if any)	No.
Temporal coherence and/or tracking approach considered (if any)	No.
Compositional model used, i.e. pictorial structure (if any)	No.
Other technique/strategy used not included in previous items (if any)	No.
Method complexity analysis	Training: about 1 hours on PC with CPU (Intel i7-4770), RAM (32G) Testing: about 0.5 hours on PC with CPU (Intel i7-4770), RAM (32G)

Qualitative advantages of the proposed solution

A simple yet effective method. Meanwhile, it is efficient.

Results of the comparison to other approaches (if any)

No.

Novelty degree of the solution and if it has been previously published

We utilize the dense features and effective super vector encoding methods for action recognition. Based on our representation, our method is able to effectively conduct action spotting.

Language and implementation details (including platform, memory, parallelization requirements)	Matlab 2012 ^a ,on Window 7 with 64 bit; Vsual Studio 2010, with Opencv 2.4.5; Parallelization: matlab with 4 cores.
Human effort required for implementation, training and validation?	No.
Training/testing expended time?	Training: 1 hours; Testing: 0.5 hours
General comments and impressions of the challenge	Very good. Thanks for your organization.