

Foucher, S., Gagnon, L. "Automatic Detection and Clustering of Actor Faces based on Spectral Clustering Techniques" In *Proceedings of the Fourth Canadian Conference on Computer and Robot Vision (CRV07)*. Montreal, Quebec, Canada, May 28-30, 2007.

**Abstract**

We describe a video indexing system that aims at indexing large video files in relation to the presence of similar faces. The detection of near-frontal view faces is done with a cascade of weak classifier. Face tracking is done through a particle filter and generate trajectories. Face clusters are found based on a spectral clustering approach. We compare the performance of various spectral clustering techniques based on 2DPCA features. The system performance is evaluated against a public face database as well as on a real full-length feature movie.