Short Term Action Recognition

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Instantaneous Action Primitives

Single actions, not sequences
Eg. a hand wave *vs* meeting a friend

Temporally local/short-term image analysis:
| ? |

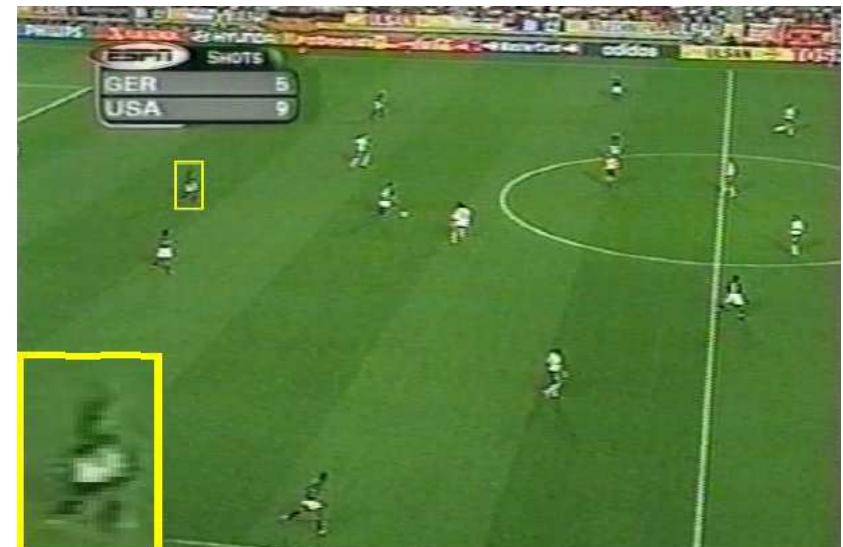Appearance based/viewpoint specific

Efros, Berg, Mori & Malik

PROBLEM

Near field (bodies 300 pixels high)
    → Use geometric model

Far field (bodies 3 pixels high)
    → Can only use tracking

Here: | ? | (bodies 30 pixels high)

GOAL

Select matching activities from | ? | of video clips

KEY CONCEPT

Match patterns of | ? | local movement

PROCESS OVERVIEW

input video → tracking and stabilizing → figure–centric sequence → optical flow, rectification, and blurring → motion descriptors → database of preclassified actions → Retrieve nearest neighbor(s) → action labels / joint locations / appearance

our algorithm