

# Poster Spotlights

**Session: Early and Biologically-inspired Vision,  
Wed 16 June 2010, 5:30-9:00 pm**

## Secrets of Optical Flow Estimation and Their Principles

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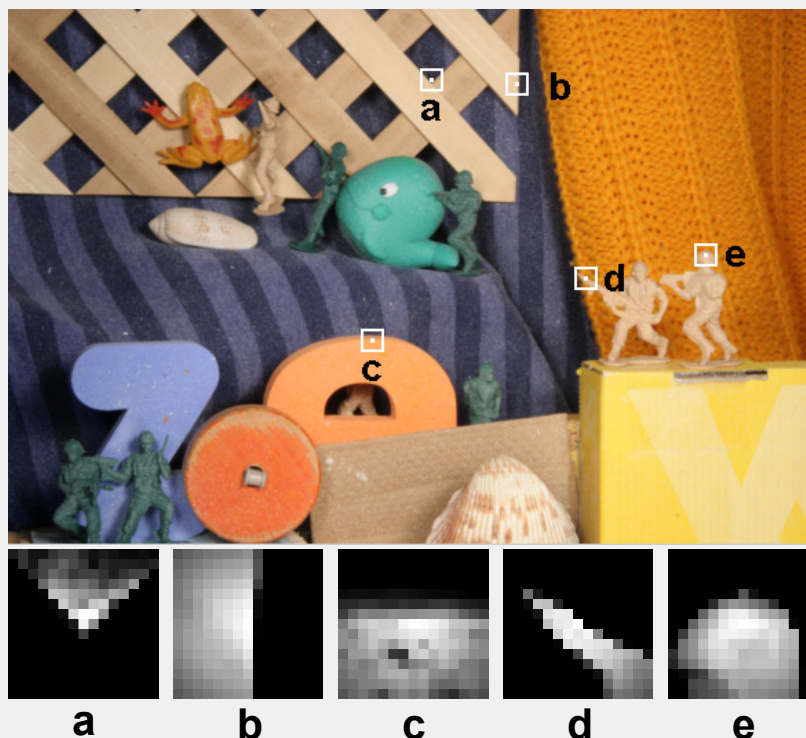
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- What makes optical flow accurate and why?
  - Most important secret: (un)weighted non-local spatial term
- MATLAB code <http://www.cs.brown.edu/~dqsun/>

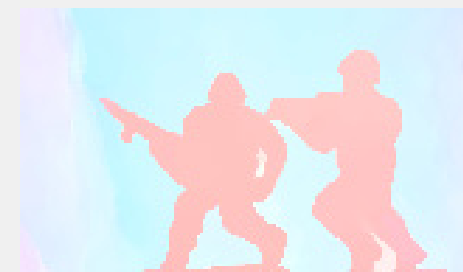
Middlebury benchmark

Average endpoint error	avg. rank
<b>Classic+NL [38]</b>	<b>5.8</b>
MDP-Flow [30]	6.4
NL-TV-NCC [28]	7.4
Layer+dense [37]	8.1
Complementary OF [24]	9.1
Adaptive [23]	10.2
Adapt-Window [36]	11.5
<b>Classic++ [39]</b>	<b>12.2</b>
DPOF [18]	12.5
ACK-Prior [31]	12.5

Spatial weighting by **Classic+NL**



Flow field



**Classic+NL**



**Classic++**