Using High-Level Visual Information for Color Constancy Joost van de Weijer, Cordelia Schmid, Jakob Verbeek

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Semantic Interpretability Images

RGB clusters (1000 visual words, k-means)

• single topic (t) per patch, drawn from image-specific topic weights

$$\{w_i\}_{i=1}^{N_d} | \theta_d) = \prod_{i=1}^{N_d} \sum_{t=1}^T \theta_{dt} \prod_{m=1}^M p(w_i^m | t).$$







			results in angular error:				
	standard co	high	selection				
no cc	worst BU	best BU	BU	TD	BU & TD		
10.2	8.6	4.8	4.8	4.8	4.8		
5.8	7.7	5.2	4.1	4.5	3.7		

Data Set training: labelled images of Microsoft Research Cambridge (MSRC) set, together with ten images collected from Google Image for each class. Test : four images per class, totaling 36 images. Topic-word distributions are learned supervised. Classes: building, grass, tree, cow, sheep, sky, water, face and road.

					1
	standard co	high-level selection			
no cc	worst BU	best BU	BU	TD	BU & TD
39.6	41.4	52.2	53.4	59.5	64.2



Pixel Classification

results pixel classification in %: