

1 AC **VALSE 2019** April 11 – 14, 2019

Introduction



S(q,d) =**Static Match Kernel:** $M(x,y) = \begin{cases} \delta_{v(x),v(y)} \cdot u^{\alpha}, & h(b_x,b_y) \leq h_t \\ 0, & otherwise \end{cases}$

Dynamic Match Kernel with Deep Convolutional Email: liang27jie@163.com **Features for Image Retrieval** Websites: cv.nankai.edu.cn; liangjie.xyz ¹Jufeng Yang (杨巨峰), ¹Jie Liang (梁杰), ¹Hui Shen (沈辉), ¹Kai Wang (王恺), ²Paul L. Rosin, ³Ming-Hsuan Yang

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Methodology **Rank List** Normalization Hamming Distanc Semantic Feature from Pre-trained CNN Model $h(b_x, b_v) \leq h_t(d_s)$ -Holidays SIFT Feature of Interested Local Regions $\Rightarrow M_{dyn}(x, y) \Rightarrow$ e - Holidays ___ DupImage Dynamic Match Kernel 🗛 – DupImage, –, Paris6K_{sta} - 🛧 - Paris6K Binarization Ablation study. Static 82.40 90.00 Dvnamic Static 84.04 ↑ 92.22 1 3.42 87.93 Static 79.16 82.98 ↑ 3.48 89.66 1 Dvnamio 3.53 79.72 90.44 **87.92** ↑ 3.82 96.97 MAP and Query Time against the size of the datasets. Oxford5K+100k Oxford5K+100K Oxford5K+100K Efficiency of matching. #Matches per Query Methods Selective Match Function 67083788 85152 Dynamic Match Kernel MAP of Dynamic threshold and selective match function. W/O W/ Datasets DYN-7 DYN-S DYN-T Holidays **88.97** 87.92 91.11 3.82 3.83 3.88 UKBench 87.22 84.92 Parix6K 83.43 85.11 83.05 Oxford5K 79.66 89.43 90.22 91.00 DupImages

This paper has been accepted by TIP 2018







Experiments

