

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE

A publication of the IEEE Computer Society

JULY 2017

VOLUME 39

NUMBER 7

ITPIDJ

(ISSN 0162-8828)

REGULAR PAPERS

- An Efficient Globally Optimal Algorithm for Asymmetric Point Matching*
W. Lian, L. Zhang, and M.-H. Yang 1281
- A Novel Nonparametric Maximum Likelihood Estimator for Probability Density Functions*
R. Agarwal, Z. Chen, and S.V. Sarma 1294
- A Unifying Model for Camera Calibration*
S. Ramalingam and P. Sturm 1309
- DeepID-Net: Object Detection with Deformable Part Based Convolutional Neural Networks*
W. Ouyang, X. Zeng, X. Wang, S. Qiu, P. Luo, Y. Tian, H. Li, S. Yang, Z. Wang, H. Li,
K. Wang, J. Yan, C.-C. Loy, and X. Tang 1320
- DeepShape: Deep-Learned Shape Descriptor for 3D Shape Retrieval*
J. Xie, G. Dai, F. Zhu, E.K. Wong, and Y. Fang 1335
- HOTS: A Hierarchy of Event-Based Time-Surfaces for Pattern Recognition*
X. Lagorce, G. Orchard, F. Galluppi, B.E. Shi, and R.B. Benosman 1346
- Joint Intermodal and Intramodal Label Transfers for Extremely Rare or Unseen Classes*
G.-J. Qi, W. Liu, C. Aggarwal, and T. Huang 1360
- Latent Regression Forest: Structured Estimation of 3D Hand Poses*
D. Tang, H.J. Chang, A. Tejani, and T.-K. Kim 1374
- Procrustean Normal Distribution for Non-Rigid Structure from Motion*
M. Lee, J. Cho, and S. Oh 1388
- Randomly Perturbed B-Splines for Nonrigid Image Registration*
W. Sun, W.J. Niessen, and S. Klein 1401
- Scatter Component Analysis: A Unified Framework for Domain Adaptation and Domain Generalization*
M. Ghifary, D. Balduzzi, W.B. Kleijn, and M. Zhang 1414
- SIFTing Through Scales*
T. Hassner, S. Filosof, V. Mayzels, and L. Zelnik-Manor 1431
- Tree-Structured Models for Efficient Multi-Cue Scene Labeling*
M. Cordts, T. Rehfeld, M. Enzweiler, U. Franke, and S. Roth 1444

(Contents continued on back cover)

Published in cooperation with: **Aerospace & Electronic Systems Society, Control Systems Society, Engineering in Medicine & Biology Society, Information Theory Society, Systems, Man & Cybernetics Society, Ultrasonics, Ferroelectrics, & Frequency Control Society**

Indexed in MEDLINE®/PubMed®
and indexed in ISI

MEDLINE
U.S. National Library of Medicine

PubMed

IEEE
**computer
society**

www.computer.org
tpami@computer.org

IEEE

SHORT PAPERS

<i>City-Scale Localization for Cameras with Known Vertical Direction</i> L. Svärm, O. Enqvist, F. Kahl, and M. Oskarsson	1455
<i>Learning to Segment Human by Watching YouTube</i> X. Liang, Y. Wei, L. Lin, Y. Chen, X. Shen, J. Yang, and S. Yan	1462
<i>LP Relaxation of the Potts Labeling Problem Is as Hard as Any Linear Program</i> D. Průša and T. Werner	1469
<i>Object Detection Networks on Convolutional Feature Maps</i> S. Ren, K. He, R. Girshick, X. Zhang, and J. Sun	1476
<i>The Reproduction Angular Error for Evaluating the Performance of Illuminant Estimation Algorithms</i> G.D. Finlayson, R. Zakizadeh, and A. Gijzenij	1482