

IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE

A publication of the IEEE Computer Society

FEBRUARY 2016

VOLUME 38

NUMBER 2

ITPIDJ

(ISSN 0162-8828)

State of the Journal

D.A. Forsyth 209

REGULAR PAPERS

A Fast and Accurate Unconstrained Face Detector

S. Liao, A.K. Jain, and S.Z. Li 211

A Generalized Probabilistic Framework for Compact Codebook Creation

L. Liu, L. Wang, and C. Shen 224

A Stochastic Approach to Diffeomorphic Point Set Registration with Landmark Constraints

I. Kolesov, J. Lee, G. Sharp, P. Vela, and A. Tannenbaum 238

Fast Direct Methods for Gaussian Processes

S. Ambikasaran, D. Foreman-Mackey, L. Greengard, D.W. Hogg, and M. O'Neil 252

Flexible Clustered Multi-Task Learning by Learning Representative Tasks

Q. Zhou and Q. Zhao 266

Generalized Canonical Time Warping

F. Zhou and F. De la Torre 279

Image Super-Resolution Using Deep Convolutional Networks

C. Dong, C.C. Loy, K. He, and X. Tang 295

Isotonic Modeling with Non-Differentiable Loss Functions with Application to Lasso Regularization

A. Painsky and S. Rosset 308

Mixture of Switching Linear Dynamics to Discover Behavior Patterns in Object Tracks

J.F.P. Kooij, G. Englebienne, and D.M. Gavrila 322

NUS-PRO: A New Visual Tracking Challenge

A. Li, M. Lin, Y. Wu, M.-H. Yang, and S. Yan 335

Robust Model Fitting Using Higher Than Minimal Subset Sampling

R.B. Tennakoon, A. Bab-Hadiashar, Z. Cao, R. Hoseinnezhad, and D. Suter 350

Robust Regression

D. Huang, R. Cabral, and F. De la Torre 363

Shape and Reflectance Estimation in the Wild

G. Oxholm and K. Nishino 376

Texture Illumination Separation for Single-Shot Structured Light Reconstruction

M. Vo, S.G. Narasimhan, and Y. Shekh 390

Weakly Supervised Large Scale Object Localization with Multiple Instance Learning and Bag Splitting

W. Ren, K. Huang, D. Tao, and T. Tan 405

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

CELEBRATING 70 YEARS

www.computer.org • tpami@computer.org

