Fanghui Liu

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Education

2014 - **Ph.D. student**, *in Pattern Recognition and Intelligent System*, Institute of Image Processing Pattern Recognition, Shanghai Jiao Tong University, China.

advisor: Prof. Jie Yang

2010 - 2014 **B.Sc.**, *in Control Science and Engineering*, School of Astronautics, Harbin Institute of Technology, China.

Research Interests

Kernel Learning, Visual Tracking, and Bayesian Learning

Selected Publications

Journal Papers

2018 **Fanghui Liu**, Xiaolin Huang, Chen Gong, Jie Yang, Johan A.K. Suykens: *Indefinite Kernel Logistic Regression with Concave-inexact-convex Procedure.* IEEE Transactions on Neural Networks and Learning Systems (**TNNLS**), 2018.

2018 **Fanghui Liu**, Chen Gong, Xiaolin Huang, Tao Zhou, Jie Yang, and Dacheng Tao: *Robust Visual Tracking Revisited: From Correlation Filter to Template Matching.* IEEE Transactions on Image Processing (**IEEE TIP**), 2018.

2018 Cheng Peng, **Fanghui Liu**, Jie Yang, and Nikola Kasabov: *Densely Connected Discriminative Correlation Filters for Visual Tracking* IEEE Signal Processing Letters (**IEEE SPL**), 2018.

2018 Tao Zhou, **Fanghui Liu**, Harish Bhaskar, Jie. Yang, Huanlong Zhang, and Ping Cai: *Online discriminative dictionary learning for robust object tracking.* Neurocomputing, 2018.

2017 **Fanghui Liu**, Chen Gong, Tao Zhou, Keren Fu, Xiangjian He, and Jie Yang: *Robust visual tracking via nonnegative multiple linear coding.* IEEE Transactions on Multimedia (**IEEE TMM**), 2017.

2017 **Fanghui Liu**, Tao Zhou, Chen Gong, Keren Fu, Li Bai and Jie Yang: *Incremental inverse nonnegative local coordinate factorization for visual tracking.* IEEE Transactions on Circuits and Systems for Video Technology (**IEEE TCSVT**), 2017.

2017 **Fanghui Liu**, Tao Zhou, Keren Fu and Jie Yang: *Kernelized temporal locality learning for real-time visual tracking.* Pattern Recognition Letters (**PRL**), 2017.

2017 Tao Zhou, **Fanghui Liu**, H. Bhaskar and Jie Yang: *Robust visual tracking via online discriminative and low-rank dictionary learning.* IEEE Transactions on Cybernetics (**IEEE TCYB**), 2017.

2017 T. Zhou, **F. Liu**, Harish Bhaskar, Jie Yang, Huanlong Zhang and Ping Cai: *Online Discriminative Dictionary Learning for Robust Object Tracking.* Neurocomputing, 2017.

2017   Tao Zhou, Harish Bhaskar, **Fanghui Liu**, Jie Yang and Ping Cai: *Online learning and joint optimization of combined spatial-temporal models for robust visual tracking.* Neurocomputing, 2017.

2016   **Fanghui Liu**, Tao Zhou, Keren Fu and Jie Yang: *Robust visual tracking via constrained correlation filter coding.* Pattern Recognition Letters (**PRL**), 2016.

2016   **Fanghui Liu**, Tao Zhou, Keren Fu and Jie Yang: *Geometric affine transformation estimation via correlation filter for visual tracking.* Neurocomputing, 2016.

2016   Tao Zhou, Harish Bhaskar, **Fanghui Liu** and Jie Yang: *Graph regularized and locality-constrained coding for robust visual tracking.* IEEE Transactions on Circuits and Systems for Video Technology (**IEEE TCSVT**), 2016.

2016   Chenjie Ge, Keren Fu, **Fanghui Liu**, Li Bai and Jie Yang: *Co-saliency detection via inter and intra saliency propagation.* Signal Processing: Image Communication (SPIC), 2016.

Conference Papers

2018   **Fanghui Liu**, Xiaolin Huang, Chen Gong, Jie Yang, and Li Li: *Nonlinear Pairwise Layer and Its Training for Kernel Learning.* The Thirty-Second AAAI Conference on Artificial Intelligence (**AAAI**), 2018.

2017   **Fanghui Liu**, Xiaolin Huang and Jie Yang: *Indefinite kernel logistic regression.* ACM Multimedia (**ACM MM**), 2017. (regular paper)

2017   **Fanghui Liu**, Xiaolin Huang, Cheng Peng, Jie Yang and Nikola Kasabov: *Robust kernel approximation for classification.* International Conference on Neural Information Processing (**ICONIP**), 2017.

2017   Cheng Peng, **Fanghui Liu**, Haiyan Yang, Jie Yang and Nikola Kasabov: *Correlation filters with adaptive memories and fusion for visual tracking.* International Conference on Neural Information Processing (**ICONIP**), 2017.

2017   Tao Zhou, **Fanghui Liu**, Harish Bhaskar, Jie Yang and Ping Cai: *Visual tracking via structural patch-based dictionary pair learning.* IEEE International Conference on Image Processing (**ICIP**), 2017.

2016   **Fanghui Liu**, Mingna Liu, Tao Zhou, Yu Qiao and Jie Yang: *Incremental robust nonnegative matrix factorization for object tracking.* International Conference on Neural Information Processing (**ICONIP**), 2016.

2016   Kunqi Gu, Tao Zhou, **Fanghui Liu**, Jie Yang and Yu Qiao: *Correlation filter tracking via bootstrap learning.* IEEE International Conference on Image Processing (**ICIP**), 2016.

2016   **Fanghui Liu**, Tao Zhou, Keren Fu, Irene Yu-Hua Gu, and Jie Yang: *Robust visual tracking via inverse nonnegative matrix factorization.* IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**), 2016.

2015   **Fanghui Liu**, Tao Zhou, Irene Yu-Hua Gu and Jie Yang: *Visual tracking via nonnegative regularization multiple locality coding.* IEEE International Conference on Computer Vision Workshops (**ICCVW**), 2015.

Selected Honors, Awards and Fellowships

2018 "Outstanding Reviewer Award" by the PATTERN RECOGNITION Journal

2018 the Nurturing Foundation of "Excellent Doctorial Dissertation", awarded by Shanghai Jiao Tong University

2018 AAAI student travel award

2017 National Scholarship, awarded by Ministry of Education of the P.R.C

2016 National Scholarship, awarded by Ministry of Education of the P.R.C
2013 Meritorious Winner of American Mathematical Contest in Modeling (MCM)
2012 The First Prize of the Northeast China Mathematical Contest in Modeling

Selected Talks

2018.2 **AAAI**-**18**, New Orleans, USA.

2017.10 ACM Multimedia (**ACM MM'17**), Mountain view, USA.

Academic Services

Reviewer (18) of *IEEE Transactions on Image Processing*

Reviewer (18) of *IEEE Transactions on Multimedia*

Reviewer (16,17) of *IEEE Transactions on Circuits and Systems for Video Technology*

Reviewer (17,18) of *Pattern Recognition*

Reviewer (18) of *Neurocomputing*

Reviewer (18) of *IEEE Signal Processing Letters*

Reviewer (18) of *Pattern Recognition Letters*

Reviewer (18) of *IEEE Access*

Reviewer (17) of *IEEE International Conference on Data Mining*