

## Professor Deyu Meng

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Ph.D, Computer Science	2004.09	2008.09
Jiaotong University (XJTU), China		
Master, Applied Mathematics	2001.09	2004.07
Jiaotong University (XJTU), China		
Bachelor, Information Science	1997.09	2001.07
Jiaotong University (XJTU), China		

Machine Learning

Machine learning, artificial intelligence, computer vision

Distinguished Guest Professor Macau University of Science and Technology

2019.11 current

Professor

### Representative 10 publications in the recent year:

- [1] Xin Luo, Hao Wu, Zhi Wang, Jianjun Wang, **Deyu Meng\***. A novel approach to large-scale dynamically weighted directed network representation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2022. **(Impact factor: 24.314, Top-1 Journal on Artificial Intelligence Research)**
- [2] Qi Xie, Qian Zhao, Zongben Xu and **Deyu Meng\***. Fourier Series Expansion Based Filter Parametrization for Equivariant Convolutions. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2022. **(Impact factor: 24.314, Top-1 Journal on Artificial Intelligence Research)**
- [3] Jiangjun Peng, Yao Wang, Hongying Zhang, Jianjun Wang, **Deyu Meng\***. Exact Decomposition of Joint Low Rankness and Local Smoothness Plus Sparse Matrices. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2022. **(Impact factor: 24.314, Top-1 Journal on Artificial Intelligence Research)**
- [4] Jun Shu, Yanwen Zhu, Qian Zhao, **Deyu Meng\***, and Zongben Xu. MLR-SNet: Transferable LR Schedules for Heterogeneous Tasks. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2022. **(Impact factor: 24.314, Top-1 Journal on Artificial Intelligence Research)**
- [5] Shuang Xu , Xiangyong Cao , Jiangjun Peng , Qiao Ke , Cong Ma, and **Deyu Meng\***. Hyperspectral Image Denoising by Asymmetric Noise Modeling. *IEEE Transactions on Geoscience and Remote Sensing*, 2022. **(Impact factor: 8.125, Top-1 Journal on Remote Sensing Research)**
- [6] Jiangjun Peng, Hailin Wang, Xiangyong Cao, Xinlin Liu, Xiangyu Rui, and **Deyu Meng\***. Fast Noise Removal in Hyperspectral Images via Representative Coefficient Total Variation. *IEEE Transactions on Geoscience and Remote Sensing*, 2022. **(Impact factor: 8.125, Top-1 Journal on Remote Sensing Research)**
- [7] Zina Li, Yao Wang , Qian Zhao, Shijun Zhang, **Deyu Meng\***. A Tensor-Based Online RPCA Model for Compressive Background Subtraction. *IEEE Transactions on Neural Networks and Learning Systems*, 2022. **(Impact factor: 14.255, Top Journal on Neural Network Research)**
- [8] Hong Wang, Qi Xie, Qian Zhao, Yuexiang Li, Yong Liang, Yefeng Zheng, **Deyu Meng\***. RCDNet: An Interpretable Rain Convolutional Dictionary Network for Single Image Deraining. *IEEE Transactions on Neural Networks and Learning Systems*, 2022. **(Impact factor: 14.255, Top Journal on Neural Network Research)**
- [9] Junxiong Jia, Peijun Li, **Deyu Meng\***. Stein variational gradient descent on infinite-dimensional space and applications to statistical inverse problems. *SIAM Journal on Numerical Analysis*. 2022. **(Impact factor: 3.309, Top Journal on Applied Mathematics Research)**
- [10] Jiadong Lin, Songbo Wang, Peter A Audano, **Deyu Meng**, Jacob I Flores, Walter Kosters, Xiaofei Yang, Peng Jia, Tobias Marschall, Christine R Beck, Kai Ye, SVision: A deep learning approach to resolve complex structural variants, *Nature Methods*, 2022. **(Impact factor: 47.99, Top Journal on General Nature Research)**

### Representative 10 publications in all years:

**Impact factor: 24.314, Top-1 Journal on Artificial Intelligence Research)**

- [4] Hongwei Yong, **Deyu Meng\***, Wangmeng Zuo, Lei Zhang. Robust Online Matrix Factorization for Dynamic Background Subtraction, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2018. (**160 citations; Impact factor: 24.314, Top-1 Journal on Artificial Intelligence Research**)
- [5] Xiangyong Cao, Feng Zhou, Lin Xu, **Deyu Meng\***, Zongben Xu, John Paisley. Hyperspectral Image Classification with Markov Random Fields and a Convolutional Neural Network. *IEEE Transactions on Image Processing*. 2018. (**ESI Highly Cited paper, 258 citations; Impact factor: 11.041, Top-1 Journal on Image Processing Research**)
- [6] Xiangyong Cao, Jing Yao, Zongben Xu, **Deyu Meng\***. Hyperspectral Image Classification with Convolutional Neural Network and Active Learning. *IEEE Transactions on Geoscience and Remote Sensing*, 2020. (**ESI Highly Cited paper, 163 citations; Impact factor: 8.125, Top-1 Journal on Remote Sensing Research**)
- [7] Chenqiang Gao, **Deyu Meng\***, Yi Yang, Yongtao Wang, Xiaofang Gao, Alexander G. Hauptmann. Infrared Patch-image Model for Small Target Detection in A Single Image. *IEEE Transactions on Image Processing*. 22(12): 4996-5009, 2013. (**ESI Highly Cited paper, 564 citations; Impact factor: 11.041, Top-1 Journal on 8882 0 596.04 842.52 re** **WBI 12 Tf1 0 0 1 120.98 651**)

## Professional Certification and Awards

Ministry of Education, Changjiang Scholar Distinguished Professor	2022-2026
First Prize of Shaanxi Natural Science Award	2018
Excellent Teaching Award for Shaan'xi Young Mathematical Teachers	2011
Science and Technology Award for Youth	2010
Excellent Doctorial Dissertations Award of Province	2010

## Journal Editorship

ASSOCIATE EDITOR of:

IEEE Transactions on Pattern Analysis and Machine Intelligence  
Science China Information Sciences  
Frontiers of Computer Science  
National Science Review

## Personal Website

<https://gr.xjtu.edu.cn/en/web/dymeng>