

Mingyu Fan

CONTACT INFORMATION	Room 205, the 3rd Building South campus, Wenzhou University Zhejiang, P. R. China, 325035	<i>Cell:</i> +86-13616641250 <i>Office:</i> 86-577-86689229 <i>E-mail:</i> fanmingyu@wzu.edu.cn; fanmingyu@amss.ac.cn
RESEARCH INTERESTS	Manifold learning, Sparse representation, Low-rank representation, Deep learning	
TEACHING	Undergraduate: Calculus; Digital Image Processing; Mathematical Models Graduate: Pattern Recognition	
EDUCATION	Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, P. R. China Ph.D, Applied Mathematics, July 2011 <ul style="list-style-type: none">• Dissertation: “Multi-Manifold Learning Theory and Algorithms with Application in Machine Learning”• Advisor: Professor Bo Zhang, Co-Advisor: Professor Hong Qiao The Central University for Nationalities, Beijing, P. R. China B.E., Department of Mathematics and Information Sciences, June, 2006	
HONORS AND AWARDS	Dean Scholarship of Academy of Mathematics and Systems Science, 2011 (<5%)	
RESEARCH EXPERIENCE	Associate Professor at Wenzhou University, Sep., 2013 - present <ul style="list-style-type: none">• Interested in Feature Learning, Sparse Representation, Low-Rank Representation and their applications in large scale image classification and data mining. Ph.D at Academy of Mathematics and Systems Science, Chinese Academy of Sciences Jul., 2006 - Jul., 2011 <ul style="list-style-type: none">• Working with Prof. Bo Zhang and Prof. Hong Qiao on manifold learning, sparse representation and image data mining. Research Internship at Samsung SAIT Research Center, Beijing, China, Nov. 2010 - March. 2011 <ul style="list-style-type: none">• Develop an image classification system for PASCAL VOC 2007.	
PROJECT EXPERIENCE	<ol style="list-style-type: none">1. Principal Investigator, National Natural Science Foundation of China, “Some important problems in semi-supervised learning for large scale high dimensional data”, Grant No. 61772373, 2018.01 – 2021.12, (610,000 Chinese RMB)2. Principal Investigator, National Natural Science Foundation of China, “Algorithms based on manifold learning and sparse representation for face recognition with low quality images”, Grant No. 61203241, 2013.01 – 2015.12, (250,000 Chinese RMB)3. Principal Investigator, National Natural Science Foundation of Zhejiang Province, “The key problems in high dimensional data feature selection”, Grant No. LQ12F03004, 2012.01 – 2013.12, (50,000 Chinese RMB)4. Principal Investigator, National Natural Science Foundation of Zhejiang Province, “Research on Structured Deep Neural networks”, Grant No. LY15F030011, 2015.01-2017.12, (80,000 Chinese RMB)	

PROFESSIONAL
ACTIVITIES

- Reviewer, Pattern Recognition
- Reviewer, Information Sciences
- Reviewer, Neurocomputing
- Reviewer, IEEE Transactions on Neural Networks and Learning Systems
- Reviewer, IEEE Transactions on Cybernetics
- Senior PC, International Joint Conference on Artificial Intelligence 2017

PUBLICATIONS

Journal:

1. **Mingyu Fan**, Hong Qiao and Bo Zhang, Intrinsic dimension estimation of manifolds by incising balls, *Pattern Recognition*, 42 (2009), 780-787.
2. **Mingyu Fan**, Nannan Gu, Hong Qiao, Bo Zhang, Sparse Regularization for semi-supervised classification, *Pattern Recognition*, 44 (8) (2011) 1777-1784.
3. Nannan Gu, **Mingyu Fan**, Hong Qiao, Bo Zhang, Discriminative Sparsity Preserving Projections for Semi-Supervised Dimensionality Reduction. *IEEE Signal Process. Lett.* 19(7): 391-394 (2012).
4. Xiangsheng Huang, Zhen Lei, **Mingyu Fan**, Xiao Wang, Stan Z. Li, Regularized Discriminative Spectral Regression Method for Heterogeneous Face Matching. *IEEE Transactions on Image Processing* 22 (1) (2013) 353-362.
5. **Mingyu Fan**, Xiaoqin Zhang, Shengyong Chen, Hujun Bao, Steve J. Maybank, Dimension estimation of image manifolds by minimal cover approximation, *Neurocomputing* (105) (2013) 19-29.
6. **Mingyu Fan**, Xiaoqin Zhang, Zhouchen Lin, Zhongfei Zhang, Hujun Bao, A Regularized Approach for Geodesic Based Semi-Supervised Multi-Manifold Learning, *IEEE Transactions on Image Processing*, 23 (5) (2014) 2133-2147.
7. **Mingyu Fan**, Nannan Gu, Hong Qiao, Bo Zhang, Dimensionality Reduction: An Interpretation From Manifold Regularization Perspective, *Information Sciences*, 277 (2014) 694-714.
8. Nannan Gu, Di Wang, **Mingyu Fan**, Deyu Meng, A kernel-based sparsity preserving method for semi-supervised classification, *Neurocomputing*, 139 (2014) 345-365.
9. Nannan Gu, **Mingyu Fan**, Liang Du, Dongchun Ren, Efficient Sequential Feature Selection Based on Adaptive Eigenspace Model, *Neurocomputing*, 161 (2015) 199 - 209.
10. **Mingyu Fan**, Xiaoqin Zhang, Hong Qiao, Bo Zhang, Efficient Isometric Multi-Manifold Learning Based on the Self-Organizing Method, *Information Sciences* 345: 325-339 (2016).
11. Di Wang, Xiaoqin Zhang, **Mingyu Fan**, Xiuzi Ye: Hierarchical mixing linear support vector machines for nonlinear classification. *Pattern Recognition* 59: 255-267 (2016)
12. Nannan Gu, **Mingyu Fan**, Deyu Meng, Robust Semi-Supervised Classification for Noisy Labels Based on Self-Paced Learning, *IEEE Signal Process. Lett.* 23(12): 1806-1810 (2016).

Conference:

1. **Mingyu Fan**, Xiaoqin Zhang, Zhouchen Lin, Zhongfei Zhang, Hujun Bao, Geodesic Based Semi-supervised Multi-manifold Feature Extraction. *ICDM 2012*: 852-857.
2. **Mingyu Fan**, Hong Qiao, Bo Zhang, Xiaoqin Zhang, Isometric Multi-manifold Learning for Feature Extraction. *ICDM 2012*: 241-250.
3. Peng Zhou, Liang Du, **Mingyu Fan**, and Yi-Dong Shen, An LLE based Heterogeneous Metric Learning for Cross-media Retrieval. *SDM 2015*.

4. Liang Du, Peng Zhou, Lei Shi, Hanmo Wang, **Mingyu Fan**, Wenjian Wang, Yi-Dong Shen, Robust Multiple Kernel K-means Using L21-Norm. *IJCAI 2015*: 3476-3482.
5. Xiaoqin Zhang, Wei Li, **Mingyu Fan**, Di Wang, Xiuzi Ye, Multi-Modality Tracker Aggregation: from Generative to Discriminative. *IJCAI 2015*.
6. Di Wang, Xiaoqin Zhang, **Mingyu Fan**, Xiuzi Ye, An Efficient Classifier Based on Hierarchical Mixing Linear Support Vector Machines. *IJCAI 2015*.
7. Di Wang, Xiaoqin Zhang, **Mingyu Fan**, Xiuzi Ye, Semi-Supervised Dictionary Learning via Structural Sparse Preserving. *AAAI 2016*: 2137-2144.
8. **Mingyu Fan**, Xiaojun Chang, Dacheng Tao, Structure Regularized Unsupervised Discriminant Feature Analysis, *AAAI 2017* 1870-1876.
9. **Mingyu Fan**, Xiaojun Chang, Xiaoqin Zhang, Di Wang, Liang Du, Top-k Supervise Feature Selection via ADMM for Integer Programming, *IJCAI 2017* 1646-1653.