

# 张笑钦教师简介

## 一、 个人基本情况：

姓 名： 张笑钦

性 别： 男

出生年月： 1982.11

民 族： 汉

职称职务： 教授/副院长

政治面貌： 中共党员

最后学历： 博士研究生

最高学位： 博士

工作单位： 温州大学/数理与电子信息工程学院

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## 二、 从事研究的专业领域及主要研究方向

研究的专业领域： 人工智能、计算机科学与技术

主要研究方向： 模式识别、机器学习、数据挖掘、计算机视觉

## 三、 主要工作经历

1. 2008.03—2008.07，英特尔中国研究院，实习生
2. 2010.07—至今，温州大学，教师

3. 2013.02—2013.08, 微软亚洲研究院（铸星计划），访问研究员
4. 2015.03—2015.06, 美国约翰霍普金斯大学，访问学者
5. 2016.01—2016.08, 德国慕尼黑工业大学（洪堡学者），访问学者

## 四、近年来主持的主要教学科研项目

1. 国家自然科学基金面上项目，基于多特征联合稀疏表示和低秩张量恢复的视觉跟踪研究，主持
2. 国家自然科学基金国际合作项目，医学图像的非刚性配准与去噪研究，主持
3. 国家自然科学基金青年项目，面向低帧率视频的目标跟踪研究，主持
4. 浙江省杰出青年科学基金项目，基于  $L_p$  范数-多任务稀疏表示的目标跟踪研究，主持
5. 德国洪堡基金项目，基于  $L_p$  范数正则化的压缩感知研究及应用，主持
6. 浙江省公益技术应用研究计划项目，面向智能交通的基于联合稀疏表示的目标跟踪关键技术研究，主持
7. 浙江省高等教育教学改革项目，创业教育与信算专业教育深度融合的人才培养模式研究，主持
8. 温州市重大科技专项，视频监控中人体行为模式分析的关键技术研发及应用，主持
9. 温州市重点创新团队，视觉信息智能计算与应用创新团队，主持

## 五、近年完成的主要教学科研成果目录 (含论文、课题、科研获奖、教学成果)

### ➤ 部分期刊论文

1. Shaobo Lin, Jinshan Zeng, and **Xiaoqin Zhang**, “Constructive neural network learning”, *IEEE Trans. on Cybernetics (IEEE TC)*, 2018.
2. Mingyu Fan, **Xiaoqin Zhang\***, Liang Chen, Liang Du, and Dacheng Tao, “Semi-Supervised Learning Through Label Propagation on Geodesics”, *IEEE Trans. on Cybernetics (IEEE TC)*, 2017.
3. Huazhu Fu, Yanwu Xu, Stephen Lin, **Xiaoqin Zhang**, Damon Wing Kee Wong, Jiang Liu, Alejandro Frangi, Mani Baskaran, and Tin Aung, “Segmentation and Quantification for Angle-Closure Glaucoma Assessment in Anterior Segment OCT”, *IEEE Trans. on Medical Image (IEEE TMI)*, 2017.
4. Di Wang, **Xiaoqin Zhang\***, Mingyu Fan, Xiuzi Ye, “Hierarchical Mixing Linear Support Vector Machines for Nonlinear Classification”, *Pattern Recognition (PR)*, 59: 255–267, 2016.
5. Mingyu Fan, **Xiaoqin Zhang**, Hong Qiao, Bo Zhang, “Efficient Isometric Multi-Manifold Learning Based on the Self-Organizing Method”, *Information Sciences (IS)*, 345(2): 325-339, 2016.
6. **Xiaoqin Zhang**, Weiming Hu, Nianhua Xie, Hujun Bao, and Steve Maybank, “A Robust

- Tracking System for Low Frame Rate Video”, *International Journal of Computer Vision (IJCV)*, 115(3): 279-304, 2015.
7. Weiming Hu, Wei Li, **Xiaoqin Zhang**, Steve Maybank, “Single and Multiple Object Tracking Using a Multi-Feature Joint Sparse Representation”, *IEEE Trans. on Pattern Analysis and Machine Intelligence (IEEE T-PAMI)*, 37(4): 816-833, 2015.
  8. **Xiaoqin Zhang**, Wei Li, Xiuzi Ye, Steve Maybank, “Robust Hand Tracking via Novel Multi-cue Integration”, *Neurocomputing*, 157: 296-305, 2015.
  9. Di Wang, **Xiaoqin Zhang\***, Mingyu Fan, Xiuzi Ye, “An Efficient Semi-Supervised Classifier Based on Block-Polynomial Mapping”, *IEEE Signal Processing Letters*, 22(10): 1776-1780,2015.
  10. **Xiaoqin Zhang**, Weiming Hu, Shengyong Chen, Steve Maybank, “Graph-Embedding-Based Learning for Robust Object Tracking”, *IEEE Trans. on Industrial Electronics (IEEE T-IE)*, 61(2): 1072-1084, 2014.
  11. **Xiaoqin Zhang**, Changcheng Li, Xiaofeng Tong, Weiming Hu, Steve Maybank, Y. Zhang, “Human Pose Estimation and Tracking via Parsing a Tree Structure Based Human Model”, *IEEE Trans. on Systems, Man and Cybernetics: Systems (IEEE T-SMCS)*, 44(5): 580-592, 2014.
  12. Mingyu Fan, **Xiaoqin Zhang\***, Zhouchen Lin, Zhongfei Zhang, Hujun Bao, “A Regularized Approach for Geodesic Based Semi-Supervised Multi-Manifold Learning”, *IEEE Trans. on Image Processing (IEEE T-IP)*, 23(5): 2133-2147, 2014.
  13. **Xiaoqin Zhang**, Weiming Hu, Hujun Bao, Steve Maybank, “Robust Head Tracking Based on Multiple Cues Fusion in the Kernel-Bayesian Framework”, *IEEE Trans. on Circuits and Systems for Video Technology (IEEE T-CSVT)*, 23(7): 1197-1208, 2013.
  14. **Xiaoqin Zhang**, Wei Li, Weiming Hu, Haibin Ling, Steve Maybank, “Block Covariance Based L1 Tracker with a Subtle Template Dictionary”, *Pattern Recognition (PR)*, 46(7): 1750-1761, 2013.
  15. Weiming Hu, Xue Zhou, Wei Li, WenhanLuo, **Xiaoqin Zhang**, Steve Maybank, “Active Contour-Based Visual Tracking by Integrating Colors, Shapes and Motions”, *IEEE Trans. on Image Processing (IEEE T-IP)*, 22(5): 1778-1792, 2013.
  16. Mingyu Fan, **Xiaoqin Zhang\***, Shengyong Chen, HujunBao, Steve Maybank, “Dimension estimation of image manifolds by minimal cover approximation”, *Neurocomputing*, 105(1): 19-29, 2013.
  17. Weiming Hu, Xi Li, Wenhan Luo, **Xiaoqin Zhang**, Steve Maybank, Zhong fei Zhang, “Single and Multiple Object Tracking Using Log-Euclidean Riemannian Subspace and Block-Division Appearance Model”, *IEEE Trans. on Pattern Analysis and Machine Intelligence (IEEE T-PAMI)*, 34(12): 2420-2440, 2012.
  18. Weiming Hu, Xi Li, **Xiaoqin Zhang**, Xingchu Shi, and Steve Maybank, “Incremental Tensor Subspace Learning and Its Applications to Foreground Segmentation and

- Tracking”, *International Journal of Computer Vision (IJCV)*, 91(3): 303-327, 2011.
19. **Xiaoqin Zhang**, Xingchu Shi, and Weiming Hu, “Visual Tracking via Dynamic Tensor Analysis with Mean Update”, *Neurocomputing*, 74(17): 3277-3285, 2011.
  20. Yu Kong, **Xiaoqin Zhang**, Weiming Hu, and YundeJia, “Learning Adaptive Codebook for Action Recognition”, *Pattern Recognition Letters*, 32(8): 1178–1186, 2011.
  21. **Xiaoqin Zhang**, Weiming Hu, Wei Qu, and Steve Maybank, “Multiple Object Tracking via Species-Based Particle Swarm Optimization”, *IEEE Trans. on Circuits and Systems for Video Technology (IEEE T-CSVT)*, 20(11): 1590-1602, 2010.

➤ 部分会议论文

22. Mingyu Fan, Xiaojun Chang, **Xiaoqin Zhang\***, Di Wang, Liang Du, “Top-k Supervise Feature Selection via ADMM for Integer Programming”, *International Joint Conference on Artificial Intelligence (IJCAI)*, 2017.
23. Yanwu Xu, Lixin Duan, Huazhu Fu, **Xiaoqin Zhang**, Damon Wing Kee Wong, Baskaran Mani, Tin Aung, and Jiang Liu, “Axial Alignment for Anterior Segment Swept Source Optical Coherence Tomography via Robust Low-rank Tensor Recovery”, *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, vol. 9902, pp. 441-449, 2016.
24. Di Wang, **Xiaoqin Zhang\***, Mingyu Fan, Xiuzi Ye, “Semi-Supervised Dictionary Learning via Structural Sparse Preserving”, *AAAI Conference on Artificial Intelligence (AAAI)*, pp. 2137-2144, 2016.
25. Lin Ma, **Xiaoqin Zhang**, Weiming Hu, Junliang Xing, Jiwen Lu and Jie Zhou, “Local Subspace Collaborative Tracking”, *International Conference on Computer Vision (ICCV)*, pp. 4301-4309, 2015.
26. **Xiaoqin Zhang**, Wei Li, Mingyu Fan, Di Wang, Xiuzi Ye, “Multi-Modality Tracker Aggregation: from Generative to Discriminative”, *International Joint Conference on Artificial Intelligence (IJCAI)*, 2015.
27. Di Wang, **Xiaoqin Zhang\***, Mingyu Fan, Xiuzi Ye, “An Efficient Classifier Based on Hierarchical Mixing Linear Support Vector Machines”, *International Joint Conference on Artificial Intelligence (IJCAI)*, 2015.
28. **Xiaoqin Zhang**, Zhengyuan Zhou, Di Wang, Yi Ma, “Hybrid Singular Value Thresholding for Tensor Completion”, *AAAI Conference on Artificial Intelligence (AAAI)*, 2014.
29. **Xiaoqin Zhang**, Di Wang, Zhengyuan Zhou, Yi Ma, “Simultaneous Rectification and Alignment via Robust Recovery of Low-rank Tensors”, *Advances in Neural Information Processing Systems (NIPS)*, 2013.
30. Mingyu Fan, Hong Qiao, Bo Zhang, **Xiaoqin Zhang**, “Isometric multi-manifold learning for feature extraction”, *IEEE International Conference on Data Mining (ICDM)*, 2012.
31. Mingyu Fan, **Xiaoqin Zhang\***, Zhouchen Lin, Zhongfei Zhang, Hujun Bao, “Geodesic based

- semi-supervised multi-manifold feature extraction”, *IEEE International Conference on Data Mining (ICDM)*, 2012.
32. Liang Chen, Ling Yan, Yonghuai Liu, Lixin Gao, **Xiaoqin Zhang**, “Displacement Template with Divide-&Conquer Algorithm for Significantly Improving Descriptor Based Face Recognition Approaches”, *European Conference on Computer Vision (ECCV)*, 2012.
  33. Nianhua Xie, Haibing Lin, Weiming Hu, **Xiaoqin Zhang**, “Use Bin-Ratio Information for Category and Scene Classification”, *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2010
  34. **Xiaoqin Zhang**, Changcheng Li, Xiaofeng Tong, Weiming Hu, Steve Maybank, Yimin Zhang, “Efficient Human Pose Estimation via Parsing a Tree Structure Based Human Model”, *International Conference on Computer Vision (ICCV)*, 2009.
  35. **Xiaoqin Zhang**, Weiming Hu, Steve Maybank, Li Xi, “Sequential Particle Swarm Optimization for Visual Tracking”, *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2008.
  36. Xi Li, Weiming Hu, Zhongfei Zhang, **Xiaoqin Zhang**, Mingliang Zhu, Jian Chen, “Visual Tracking via Incremental Log-Euclidean Riemannian Subspace Learning”, *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2008.
  37. Xi Li, Weiming Hu, Zhongfei Zhang, **Xiaoqin Zhang**, “Robust visual tracking Based on An Effective Appearance Model”, *European Conference on Computer Vision (ECCV)*, 2008.
  38. Xi Li, Weiming Hu, Zhongfei Zhang, **Xiaoqin Zhang**, “Robust Foreground Segmentation Based on Two Effective Background Models”, *ACM Conference on Multimedia Information Retrieval (ACM MIR)*, 2008.
  39. **Xiaoqing Zhang**, Weiming Hu, Steve Maybank, and Xi Li, “Graph based discriminative learning for robust and efficient object tracking”, *IEEE International Conference on Computer Vision (ICCV)*, 2007.
  40. **Xiaoqin Zhang**, Zhiyong Liu, Hong Qiao, “A Robust Multiple Cues Fusion based Bayesian Tracker”, *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 4614-4619, 2007
  41. Xi Li, Weiming Hu, Zhongfei Zhang, **Xiaoqin Zhang**, and Guan Luo, “Robust Visual Tracking Based on Incremental Tensor Subspace Learning”, *IEEE International Conference on Computer Vision (ICCV)*, 2007.

## ➤ 科研获奖

1. 《复杂场景下目标跟踪的理论与方法》，浙江大学出版社 2017 年度 10 大好书(科技类)，2017
2. 《复杂交通场景视频多目标跟踪与识别关键技术研究及应用》，浙江省人民政府，浙江省科技进步三等奖，2014
3. 《视频的运动跟踪、理解与检索》，北京市人民政府，北京市科技奖二等奖，获奖者：胡卫明、李玺、张笑钦，2009
4. 《基于  $L_p$  范数正则化的压缩感知研究及应用》，德国洪堡基金会，洪堡学者，2016。
5. 《低秩张量理论及应用》，微软亚洲研究院，微软青年教师铸星计划(StarTrack Program)，2013。
6. 《复杂场景下目标的跟踪与姿态估计》，中国计算机学会，中国计算机学会 CCF 优秀

博士论文奖，2011。

7. 微软亚洲研究院，微软学者，获奖者：张笑钦，2009。

### ➤ 教学成果

1. 温州大学步青教学名师奖，2017
2. 温州大学教学成果一等奖，2016
3. 温州大学校长特别奖，2015
4. 温州大学教坛新秀奖，2013
5. 温州大学优秀教师，2013
6. 温州大学科技创新十佳指导教师，2012、2015

### ➤ 指导学生

指导学生获得浙江省新苗计划科技立项3项，国家级创新创业项目2项，指导学科竞赛共获全国大学生数学建模竞赛一等奖、二等奖10余项，美国大学生数学建模竞赛一等奖、二等奖3项，全国研究生数学建模二等奖、三等奖2项。全国挑战杯金奖1项，浙江省挑战竞赛特等奖1项。全国互联网+创新创业竞赛铜奖1项，浙江省互联网+创新创业竞赛金奖1项。

## 六、 研究生培养情况

已培养研究生5名，目前指导在读研究生7名。

(2018年3月更新)