

# 个人简历

## 基本信息:

研究方向: 几何计算与图形图像处理 邮箱: zhanghy307@163.com

## 教育经历

- (1) 2011/09-2015/06, 中国科学技术大学/数学学院, 博士
- (2) 2017/12-2018/12, 美国伦斯勒理工学院/数学系, 公派
- (3) 2015/09-至今, 天津工业大学/计算机学院, 讲师
- (4) 2013/01-2014/12, 南开大学/数学学院, 联合培养

## 科研项目

### (1) 主持:

1. 基于广义全变分 TGV 稀疏扩散模型的三维几何数据优化方法研究, 25 万, 2019年1月-2021年12月
2. 基于稀疏扩散方法的三维几何数据分割与修复, 6万, 2018年4月-2021年3月
3. 基于稀疏性与分片常数空间的网格简化方法, 3万, 2017年1月-2017年12月

### (2) 参与:

1. 大规模复杂散乱点云数据的智能分析与处理研究, 20万
2. 三维激光扫描点云数据的智能分析与高效重建研究, 6万
3. 基于FPGA的Yolo V4 tiny 设计与研发, 20.9万

## 科研论文成果

1. **Huayan Zhang**<sup>#</sup>, Chunlin Wu<sup>\*</sup>, Juyong Zhang, Jiansong Deng, Variational Mesh Denoising Using Total Variation and Piecewise Constant Function Space, **IEEE Transactions on Visualization and Computer Graphics**, 2015, 21(7): 873-886 (一区, CCF A)
2. **Huayan Zhang**, Zhishuai He, Xiaochao Wang, A Novel Mesh Denoising Method, Based on Relaxed Second-Order Total Generalized Variation, **SIAM Journal on Imaging Sciences**, 15(1), 1-22, 2022 (二区)
3. **Huayan Zhang**<sup>#</sup>, Chunlin Wu<sup>\*</sup>, Jiansong Deng, Zheng Liu, Yuning Yang, "A new two-stage mesh surface segmentation method." **The Visual Computer** 34(11) (2018): 1597-1615.(三区)
4. Wali, Samad<sup>#</sup>, **Huayan Zhang**<sup>\*</sup>, Huibin Chang, Chunlin Wu, "A new adaptive boosting total generalized variation (TGV) technique for image denoising and inpainting." **Journal of Visual Communication and Image Representation** 59 (2019): 39-51. (三区, 通讯作者)
5. **Huayan Zhang**<sup>#</sup>, Chunxue Wang<sup>\*</sup>, "Total Variation Diffusion and Its application in Shape Decomposition." **Computer & Graphics**, Volume 90, August 2020, Pages95-107, (三区)
6. **Huayan Zhang**<sup>#</sup>, Zhichao Peng<sup>\*</sup>, "Total Generalized Variation for Triangulated Surface

Data.”(submitted )

7. Liu, Zheng<sup>#</sup>, **Huayan Zhang**, and Chunlin Wu<sup>\*</sup>. "On geodesic curvature flow with level set formulation over triangulated surfaces." **Journal of Scientific Computing** 70.2 (2017): 631-661. (二区)
8. Liu, Zheng<sup>#</sup>, Rongjie Lai, **Huayan Zhang**, Chunlin Wu<sup>\*</sup>, "Triangulated surface denoising using high order regularization with dynamic weights." **SIAM Journal on Scientific Computing** 41.1 (2019): B1-B26.(二区)
9. Chunxue Wang<sup>#</sup>, **Huayan Zhang**, Ligang Liu, "Total Generalized Variation Based Retinex Image Decomposition", **The Visual Computer**, 37, pages77–93, (2021) (三区)
10. Xiaochao Wang, Jianping Hu, **Huayan Zhang**, etc. A Novel Zero-watermarking Algorithm based on Robust Statistical Features for Natural Images, **The Visual Computer**, 2022
11. **Huayan Zhang**, Mengge Cheng, Xiaochao Wang, Image denoising and Segmentation using relaxed total generalized variation and piecewise smooth decomposition, (submitted).
12. Xue Feng<sup>#</sup>, **Huayan Zhang**, Chunlin Wu, An Effective Multi-Region MUMFORD-SHAH Image Segmentation Method Using Histogram Based Initialization, **Numerical Mathematics: A Journal of Chinese University**, 2018.