# 姜求平 副教授/硕士生导师,宁波大学

◇ 研究领域:图像/视频处理、视觉感知计算、计算机视觉

◇ 通讯地址: 宁波大学北校区杨咏曼楼 703

◆ **个人主页**: <u>www.jiangqiuping.com</u>

◆ 电子邮箱: jiangqiuping@nbu.edu.cn

♦ 联系电话: 15257863294



姜求平, 男, 浙江衢州人, 1991 年 7 月出生, 工学博士, 浙江省杰出青年基金获得者、宁波市拔 尖人才、宁波市"泛 3315 计划"创新个人、宁波大学"浙东青年学者"培养对象、中国图象图形学会 多媒体专委会、视觉大数据专委会委员。目前担任宁波大学通信工程系副教授/硕士生导师, 主要 研究方向为图像处理、视觉感知计算与计算机视觉等。主持浙江省杰出青年科学基金、国家自然 科学基金等各类科研项目 5 项, 发表 IEEE 汇刊论文 34 篇 (一作/通讯 12 篇), 2 篇论文入选 ESI 高被引, 谷歌学术引用 1000 余次。获授权国家发明专利 20 余项, 其中多项实现技术转让。获知名 SCI 期刊《Journal of Visual Communication and Image Representation》最佳论文提名奖、浙江省优秀博士学位论文提名、宁波市自然科学优秀论文二等奖等科研奖励和荣誉。

## 学习/工作经历

$\diamondsuit$	2018/07-至今	副教授/硕导	信息科学与工程学院	宁波大学
$\diamondsuit$	2017/01-2018/06	联合培养	计算机工程学院	南洋理工大学
$\diamondsuit$	2015/09-2018/06	博士生	信号与信息处理	宁波大学
$\diamondsuit$	2012/09-2015/06	硕士生	电子与通信工程	宁波大学
$\diamond$	2008/09-2012/06	本科生	通信工程	中国计量大学

#### 科研项目

- ◆ 浙江省杰出青年科学基金,基于深度学习的水下光学图像增强和客观质量评价方法研究, 2022/01-2024/12,80万,主持(在研)
- ◆ 国家自然科学基金青年项目,面向适配显示的 3D 视频视觉体验质量评价与优化,2020/01-2022/12,27万,主持(在研)
- ◆ 宁波市自然科学基金重点项目,面向 3D 视频应用的视频适配技术研究,2019/06-2021/06,5万, 主持(结题)
- ◆ 省属高校基本业务费战略引导项目,基于样本生成的水下光学图像评价与增强,2020/09-2023/09, 15万,主持(在研)
- ◆ 宁波大学高层次人才引进项目,基于深度学习的无参考影像质量评价,2018/07-2021/06,50万, 主持(结题)

# 学术兼职

#### 国际学术会议领域主席

- ♦ IEEE 国际多媒体与博览旗舰会议 2022 (ICME2022)
- ♦ IEEE 国际多媒体与博览旗舰会议 2021 (ICME2021)
- ◆ 亚太信号与信息处理协会信号与信息处理国际峰会 2019 (APSIPA2019)

#### 国际学术会议技术委员会成员

- ◆ 第 20 届国际人工智能联合会议(IJCAI2021; CCF-A 类会议)
- ◆ ACM 多媒体国际会议 (ACM MM2021; CCF-类会议)
- ♦ IEEE 国际多媒体与博览旗舰会议 (ICME2020-2022; CCF-B 类会议)
- ♦ IEEE 图像处理旗舰会议 (ICIP2018-2020; CCF-C 类会议)
- ◆ 亚太信号与信息处理协会信号与信息处理国际峰会 (APSIPA2020)
- ◆ IEEE 视觉通信与图像处理国际会议(VCIP2017-2020)

#### 国际/国内权威期刊审稿专家

- ♦ IEEE Transactions on Image Processing
- ♦ IEEE Transactions on Circuits and Systems for Video Technology
- ♦ IEEE Transactions on Multimedia
- ♦ IEEE Transactions on Neural Networks and Learning Systems
- ♦ IEEE Transactions on Cybernetics
- ♦ IEEE Transactions on Broadcasting
- ♦ IEEE Transactions on Emerging Topics in Computational Intelligence
- ♦ IEEE Multimedia Magazine
- ♦ IEEE Signal Processing Letters
- ♦ ACM Computing Survey
- ♦ ACM Transactions on Multimedia Computing, Communications, and Applications
- ♦ Elsevier Signal Processing: Image Communication
- ♦ Elsevier Journal of Visual Communication and Image Representation
- ♦ Elsevier Signal Processing
- ♦ Elsevier Neurocomputing
- ◆ 电子学报、计算机学报、中国图象图形学报

### 奖励与荣誉

$\diamondsuit$	2021/12	浙江省杰出青年科学基金获得者	1/1
$\diamond$	2021/12	宁波大学"乐歌创新奖励基金"教师创新奖	1/2
$\diamond$	2021/12	宁波大学"工会积极分子"	1/1
$\diamond$	2020/01	宁波大学"浙东青年学者"培养对象	1/1
$\diamond$	2019/12	宁波市自然科学优秀论文二等奖	1/4
$\diamond$	2019/12	宁波大学"锋领党员"	1/1
$\diamond$	2019/11	浙江省优秀博士学位论文提名奖	1/1
$\diamondsuit$	2019/09	宁波市高层次人才(拔尖人才层次)	1/1
$\diamondsuit$	2019/09	宁波市"泛 3315 计划"创新个人	1/1
<b></b>	2018/05	浙江省普通高等学校优秀毕业生	1/1
$\diamondsuit$	2017/05	JVCI 期刊最佳论文荣誉提名奖(亚军)	1/5

# 学生指导与人才培养

- ◆ 2021 第十八届"华为杯"中国研究生数学建模竞赛(顾约瑟等),全国二等奖,唯一指导教师
- ◆ 2021 宁波大学乐歌创新奖励基金学生创新项目(康耀祖等), 立项, 唯一指导教师
- ◆ 2021 宁波大学乐歌创新奖励基金学生创新奖(毛煜东),二等奖,唯一指导教师
- ◆ 2021 硕士研究生国家奖学金(彭振宇),硕士生导师
- ◆ 2020 第十七届"华为杯"中国研究生数学建模竞赛(金康俊等),全国三等奖,唯一指导教师
- ◆ 2020 第二届集成电路 EDA 设计精英挑战赛 (彭振宇等),全国三等奖,唯一指导教师

# 学术论文(Google 学术引用次数 1000+)

#### 第一/通讯作者 SCI 论文

- 1. **Qiuping Jiang**, Zhenyu Peng, Feng Shao, Ke Gu, Yabin Zhang, Wenjun Zhang, Weisi Lin, "StereoARS: Quality evaluation for stereoscopic image retargeting with binocular inconsistency detection," *IEEE Transactions on Broadcasting (TBC)*, in press, 2021.
- Qiuping Jiang, Zhenyu Peng, Guanghui Yue, Hong Li, Feng Shao, "No-reference image contrast evaluation by generating bi-directional pseudo references," *IEEE Transactions on Industrial Informatics (TII)*, 17(9): 6062-6072, Sep. 2021.
- 3. Qiuping Jiang, Feng Shao, Wei Gao, Zhuo Chen, Gangyi Jiang, Yo-Sung Ho, "Unified no-reference quality assessment of singly and multiply distorted stereoscopic images," *IEEE Transactions on Image Processing (TIP)*, 28(4): 1866-1881, Apr. 2019. (ESI 高被引论文)
- 4. Qiuping Jiang, Feng Shao, Weisi Lin, Gangyi Jiang, "BLIQUE-TMI: Blind quality evaluator for tone-mapped images based on local and global feature analyses," *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 29(2): 323-335, Feb. 2019.
- Qiuping Jiang, Feng Shao, Weisi Lin, Gangyi Jiang, "Learning sparse representation for objective image retargeting quality assessment," *IEEE Transactions on Cybernetics (TCYB)*, 48(4): 1276-1289, Apr. 2018.
- 6. Qiuping Jiang, Feng Shao, Weisi Lin, Ke Gu, Gangyi Jiang, Huifang Sun, "Optimizing multistage discriminative dictionaries for blind image quality assessment," *IEEE Transactions on Multimedia* (TMM), 20(8): 2035-2048, Aug. 2018. (ESI 高被引论文)
- 7. Qiuping Jiang, Wei Zhou, Xiongli Chai, Guanghui Yue, Feng Shao, Zhibo Chen, "A full-reference stereoscopic image quality measurement via hierarchical deep feature degradation fusion," *IEEE Transactions on Instrumentation and Measurement (TIM)*, 69(12): 9784-9796, Dec. 2020.
- Qiuping Jiang, Wei Gao, Shiqi Wang, Guanghui Yue, Feng Shao, Yo-Sung Ho, Sam Kwong, "Blind image quality measurement by exploiting high order statistics with deep dictionary encoding network," IEEE Transactions on Instrumentation and Measurement (TIM), 69(10): 7398-7410, Oct. 2020.
- 9. Zhenyu Peng, Qiuping Jiang\*, Feng Shao, Wei Gao, Weisi Lin, "LGGD+: Image retargeting quality assessment by measuring local and global geometric distortions," *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, in press, 2021.
- 10. Yudong Mao, **Qiuping Jiang\***, Runmin Cong, Wei Gao, Feng Shao, Sam Kwong, "Cross-modality fusion and progressive integration network for saliency prediction on stereoscopic 3D images," *IEEE Transactions on Multimedia (TMM)*, in press, 2021.
- 11. Feng Shao, Yanjia Fei, **Qiuping Jiang\***, Xiangchao Meng, Yo-Sung Ho, "Building stereoscopic zoomer via global and local warping optimization," *IEEE Transactions on Computational Imaging* (*TCI*), 6: 1622-1635, 2020.
- 12. Xuejin Wang<sup>#</sup>, **Qiuping Jiang**<sup>#</sup>, Feng Shao, Ke Gu, Guangtao Zhai, Xiaokang Yang, "Exploiting local degradation characteristics and global statistical properties for blind assessment of tone-mapped HDR images," *IEEE Transactions on Multimedia (TMM)*, 23: 692-705, 2021.
- 13. **Qiuping Jiang**, Feng Shao, Weisi Lin, Gangyi Jiang, "Learning a referenceless stereopair quality engine with deep non-negativity constrained sparse auto-encoder," *Pattern Recognition (PR)*, 76: 242-255, Apr. 2018.
- 14. Qiuping Jiang, Feng Shao, Gangyi Jiang, Mei Yu, Zongju Peng, "Visual comfort assessment for stereoscopic images based on sparse coding with multi-scale dictionaries," *Neurocomputing* (*NEUCOM*), 252: 77-86, Aug. 2017.
- 15. Qiuping Jiang, Feng Shao, Wei Gao, Hong Li, Yo-Sung Ho, "A risk-aware pairwise rank learning approach for visual discomfort prediction of stereoscopic 3D," *IEEE Signal Processing Letters* (SPL), 26(11): 1588-1592, Nov. 2019.
- Qiuping Jiang, Zhenyu Peng, Sheng Yang, Feng Shao, "Authentically distorted image quality assessment by learning from empirical score distributions," *IEEE Signal Processing Letters (SPL)*, 26(12): 1867-1871, Dec. 2019.
- Qiuping Jiang, Feng Shao, Weisi Lin, Gangyi Jiang, "On predicting visual comfort of stereoscopic images: A learning to rank based approach," *IEEE Signal Processing Letters (SPL)*, 23(2): 302-306, Feb. 2016.

- 18. Qiuping Jiang, Feng Shao, Gangyi Jiang, Mei Yu, Zongju Peng, "Supervised dictionary learning for blind image quality assessment using quality-constraint sparse coding," Journal of Visual Communication and Image Representation (JVCI), 33: 123-133, Nov. 2015. (最佳论文提名)
- 19. Qiuping Jiang, Feng Shao, Gangyi Jiang, Mei Yu, Zongju Peng, Changhong Yu, "A depth perception and visual comfort guided computational model for stereoscopic 3D visual saliency," Signal Processing: Image Communication (SPIC), 38: 57-69, Oct. 2015.
- 20. Qiuping Jiang, Feng Shao, Gangyi Jiang, Mei Yu, Zongju Peng, "Leveraging visual attention and neural activity for stereoscopic 3D visual comfort assessment," *Multimedia Tools and Applications* (*MTAP*), 76(7): 9405-9425, Apr. 2017.
- 21. Qiuping Jiang, Feng Shao, Gangyi Jiang, Mei Yu, Zongju Peng, "Three-dimensional visual comfort assessment via preference learning," *Journal of Electronic Imaging (JEI)*, 24(4): 043002, Jul. 2015. (亮点论文)
- 22. Junkang Hu, Qiuping Jiang\*, Runmin Cong, Wei Gao, Feng Shao, "Two-Branch Deep Neural Network for Underwater Image Enhancement in HSV Color Space," *IEEE Signal Processing Letters (SPL)*, 28: 2152-2156, 2021.
- 23. Guanghui Yue, Chunping Hou, **Qiuping Jiang\***, Yang Yang, "Blind stereoscopic 3D image quality assessment via analysis of naturalness, structure, and binocular asymmetry," *Signal Processing (SP)*, 150: 204-214, Sep. 2018.
- 24. Yongqiang Bai, Mei Yu\*, **Qiuping Jiang**\*, Gangyi Jiang, Zhongjie Zhu, "Learning content-specific codebooks for blind quality assessment of screen content images," *Signal Processing (SP)*, 161: 248-258, Aug. 2019.

#### IEEE 汇刊(其他作者)

- 25. Wei Gao, Qiuping Jiang, Ronggang Wang, Siwei Ma, Ge Li, Sam Kwong, "Consistent quality-oriented rate control in HEVC via balancing intra and inter frame coding," *IEEE Transactions on Industrial Informatics (TII)*, 18(3): 1594-1604, 2021.
- 26. Sheng Yang, Weisi Lin, Guosheng Lin, Qiuping Jiang, Zichuan Liu, "Progressive Self-Guided Loss for Salient Object Detection," *IEEE Transactions on Image Processing (TIP)*, 30: 8426-8438, 2021.
- 27. Chao Huang, Zongju Peng, Yong Xu, Feng Chen, **Qiuping Jiang**, Yun Zhang, Gangyi Jiang, Yo-Sung Ho, "Online learning-based multi-stage complexity control for live video coding," *IEEE Transactions on Image Processing (TIP)*, 30: 641-656, 2021.
- 28. Xuejin Wang, Feng Shao, **Qiuping Jiang**, Mengxiang Chao, Yo-Sung Ho, "Measuring coarse-to-fine texture and geometric distortions for quality assessment of DIBR-synthesized images," *IEEE Transactions on Multimedia (TMM)*, 23: 1173-1186, 2021.
- 29. Zhenqi Fu, Feng Shao, **Qiuping Jiang**, Xiangchao Meng, Yo-Sung Ho, "Subjective and objective quality assessment for stereoscopic 3D image retargeting," *IEEE Transactions on Multimedia (TMM)*, 23: 2100-2113, 2021.
- 30. Xiongli Chai, Feng Shao, Qiuping Jiang, Yo-Sung Ho, "Roundness-Preserving Warping for Aesthetic Enhancement-based Stereoscopic Image Editing," *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 31(4): 1463-1477, 2021.
- 31. Feng Shao, Zhenqi Fu, **Qiuping Jiang**, Gangyi Jiang, Yo-Sung Ho, "Transformation-aware similarity measurement for image retargeting quality assessment via bi-directional rewarping," *IEEE Transactions on Systems, Man and Cybernetics: Systems (TSMC-S)*, 51(5): 3053-3067, 2021.
- 32. Chao Huang, Zehua Yang, Jie Wen, Yong Xu, Qiuping Jiang, Jian Yang, Yaowei Wang, "Self-Supervision-Augmented Deep Autoencoder for Unsupervised Visual Anomaly Detection," *IEEE Transactions on Cybernetics (TCYB)*, in press, 2021.
- 33. Chao Huang, Zhihao Wu, Jie Wen, Yong Xu, **Qiuping Jiang**, Yaowei Wang, "Abnormal Event Detection Using Deep Contrastive Learning for Intelligent Video Surveillance System," *IEEE Transactions on Industrial Informatics (TII)*, in press, 2021.
- 34. Hangwei Chen, Xiongli Chai, Feng Shao, Xuejin Wang, **Qiuping Jiang**, Xiangchao Meng, Yo-Sung Ho, "Perceptual Quality Assessment of Cartoon Images," *IEEE Transactions on Multimedia (TMM)*, in press, 2021.
- 35. Xiongli Chai, Feng Shao, **Qiuping Jiang**, Xiangchao Meng, Yo-Sung Ho, "Monocular and Binocular Interactions Oriented Deformable Convolutional Networks for Blind Quality Assessment of Stereoscopic

- Omnidirectional Images," *IEEE Transactions on Circuits and Systems for Video Technology* (TCSVT), in press, 2021.
- 36. Wei Zhou, Jiahua Xu, Qiuping Jiang, Zhibo Chen, "No-reference quality assessment for 360-degree images by analysis of multi-frequency information and local-global naturalness," *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, in press, 2021.
- 37. Xuejin Wang, Feng Shao, **Qiuping Jiang**, Zhenqi Fu, Xiangchao Meng, Ke Gu, Yo-Sung Ho, "Combining retargeting quality and depth perception measures for quality evaluation of retargeted stereopairs," *IEEE Transactions on Multimedia (TMM)*, in press, 2021.
- 38. Xuejin Wang, Feng Shao, **Qiuping Jiang**, Xiongli Chai, Xiangchao Meng, Yo-Sung Ho, "List-wise rank learning for stereoscopic image retargeting quality assessment," *IEEE Transactions on Multimedia* (*TMM*), in press, 2021.
- 39. Ke Gu, Xin Xu, Junfei Qiao, **Qiuping Jiang**, Weisi Lin, Daniel Thalmann, "Learning a unified blind image quality metric via on-line and off-line big training instances," *IEEE Transactions on Big Data (TBD)*, 6(4): 780-791, Dec. 2020.
- 40. Sheng Yang, Guosheng Lin, **Qiuping Jiang**, Weisi Lin, "A dilated inception network for visual saliency prediction," *IEEE Transactions on Multimedia (TMM)*, 22(8): 2163-2176, Aug. 2020.
- 41. Wujie Zhou, Jingsheng Lei, **Qiuping Jiang**, Lu Yu, Ting Luo, "Blind binocular visual quality predictor using deep fusion network," *IEEE Transactions on Computational Imaging (TCI)*, 6: 883-893, 2020.
- 42. Xiongli Chai, Feng Shao, **Qiuping Jiang**, Yo-Sung Ho, "MSTGAR: Multioperator based stereoscopic thumbnail generation with arbitrary resolution," *IEEE Transactions on Multimedia (TMM)*, 22(5): 1208-1219, May 2020.
- 43. Feng Shao, Ying Gao, Qiuping Jiang, Gangyi Jiang, Yo-Sung Ho, "Multistage pooling for quality prediction of asymmetric multiply distorted stereoscopic images," *IEEE Transactions on Multimedia (TMM)*, 20(10): 2605-2619, Oct. 2018.
- 44. Feng Shao, Zhuqing Zhang, **Qiuping Jiang**, Weisi Lin, Gangyi Jiang, "Towards domain transfer for no-reference quality prediction of asymmetrically distorted stereoscopic images," *IEEE Transactions* on Circuits and Systems for Video Technology (TCSVT), 28(3): 573-585, Mar. 2018.
- 45. Wei Gao, Sam Kwong, **Qiuping Jiang**, Chi-Keung Fong, Peter H. W. Wong, Wilson Y. F. Yuen, "Data-Driven rate control for rate distortion optimization in HEVC based on simplified effective initial QP learning," *IEEE Transactions on Broadcasting (TBC)*, 65(1): 94-108, Mar. 2018.
- Feng Shao, Wenchong Lin, Weisi Lin, Qiuping Jiang, Gangyi Jiang, "QoE-guided warping for stereoscopic image retargeting," *IEEE Transactions on Image Processing (TIP)*, 26(10): 4790-4805, Oct. 2017.