



Qiuping Jiang

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Last updated on February 11, 2022

OVERVIEW

- I am currently an **Associate Professor** with the School of Information Science and Engineering, **Ningbo University**, Ningbo, China, and also with the Engineering Research Center of Multimedia Communication, Ministry of Education, China. I received my **Ph.D.** degree (2018) in Information and Communication Engineering from **Ningbo University**. From Jan. 2017 to May 2018, I spent one and a half years visiting the Multimedia Lab affiliated with the School of Computer Science and Engineering, **Nanyang Technological University (NTU)**, Singapore. The visit was supported by China Scholarship Council (CSC).
- I research broadly in the areas of image processing, visual perception modeling, and immersive multimedia computing. I have published more than 60 papers in referred journals and conferences including **40 Papers in IEEE Transactions/Letters**, **2 ESI Highly Cited Papers**, and 18 Chinese Invention Patents have been authorized. My **Google Scholar h-index is 20**, **Google Scholar i10-index is 32**, and **Google Scholar Citation number is 1100+**.
- I am a member of IEEE, CCF, CSIG, and CAAI. I also serve as the **Associate Editor** for *Journal of Electronic Imaging* and *APSIPA Transactions on Signal and Information Processing*, the **Area Chair/Session Chair/PC member** for IJCAI/AAAI/ACM-MM/ICME/ICIP/APSIPA-ASC, and the **Reviewer** for ACM Computing Survey/TOMCCAP, IEEE TIP/TNNLS/TCYB/TCSVT/TMM/TBC, Elsevier NEUCOM/SP/SPIC/JVCI, and IET IP/SP/CV.
- I was a recipient of the **Distinguished Youth Scholar Funding by Zhejiang Provincial Natural Science Foundation (ZJNSF)**, **2017 Elsevier-JVCI Best Paper Hornerable Mention Award**, Excellent Doctoral Dissertation Award by Zhejiang Province, Scientific and Technological Progress Award by Ningbo Municipality, Top Talent of Ningbo Municipality, and Innovative Talents of Ningbo Pan-3315 Plan.

RESEARCH INTERESTS

- Human Visual Perception Modeling
- Image/Video Quality Assessment
- Image/Video Quality Enhancement
- Immersive Multimedia Computing and Application

EDUCATION & WORK EXPERIENCE

- **Associate Professor** 2018/07-Now
School of Information Science and Engineering
Engineering Research Center of Multimedia Communication, Ministry of Education, China
Ningbo University (NBU), Ningbo, China
- **Research Assistant** 2017/1-2018/05
Multimedia Lab, School of Computer Science and Engineering
Nanyang Technological University (NTU), Singapore
Supervisor & Collaborator: Prof. [Weisi Lin](#) (IEEE/IET Fellow)
- **Ph.D. (Information and Communication Engineering)** 2014/09-2018/06
Ningbo University (NBU), Ningbo, China
Thesis: Research on 3D Visual Media Quality Evaluation and Optimization
Supervisor: Prof. Feng Shao (Receipt of NSFC Excellent Youth Project)

PROJECTS

- **(Principal Investigator)** “Visual Quality Evaluation and Optimization for Stereoscopic 3D Video Retargeting”, *National Natural Science Foundation of China (Youth Project)*, **CNY 316,000**, 2020/01-2022/12
- **(Principal Investigator)** “Deep Learning-based Underwater Image Enhancement and Quality Evaluation”, *Natural Science Foundation of Zhejiang Province (Distinguished Youth Project)*, **CNY 800,000**, 2022/01-2024/12
- **(Principal Investigator)** “Deep Learning-based Blind Quality Assessment of In-the-wild Natural Images”, *Scientific Research Start-up Fundation Granted by Ningbo University*, **CNY 500,000**, 2018/07-2023/06

SELECTED PUBLICATIONS

- **In Press:**
 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).
 2. 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).

3. 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).
4. 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).
5. 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).
6. 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).
7. 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).
8. 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).
9. 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).
10. 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).

• 2022:

1. 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, (2022).

• 2021:

1. **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, (Sept. 2021).
2. Xuejin Wang[#], **Qiuping Jiang[#]**, 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).
3. 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).

4. 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).
5. 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).
6. Xuejin Wang, Feng Shao, **Qiuping Jiang**, Xiangchao Meng, 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).
7. 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).
8. 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).
9. 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 Circuits and Systems for Video Technology (TCSVT)*, 51(5): 3053-3067, (2021).

• 2020:

1. **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, (2020).
2. **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, (2020).
3. 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).
4. 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, (2020).
5. 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, (2020).
6. 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).
7. 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, (2020).

8. Wei Zhou, **Qiuping Jiang**, Yuwang Wang, Zhibo Chen, Weiping Li, “Blind quality assessment for image superresolution using deep two-stream convolutional networks,” *Information Sciences (INS)*, 528: 205-218, (2020).
9. Xuejin Wang, Meiling Qi, Feng Shao, **Qiuping Jiang**, Xiangchao Meng, “Blind quality assessment for multiply distorted stereoscopic images towards IoT-based 3D capture systems,” *Journal of Visual Communication and Image Representation*, 71:102868, (2020).
10. Jinbin Hu, Xuejin Wang, Feng Shao, **Qiuping Jiang**, “TSPR: Deep network-based blind image quality assessment using two-side pseudo reference images,” *Digital Signal Processing*, 106:102849, (2020).
11. Yiming Xiong, Feng Shao, Xiangchao Meng, **Qiuping Jiang**, Weiwei Sun, Randi Fu, Yo-Sung Ho, “A large-scale remote sensing database for subjective and objective quality assessment of pansharpened images,” *Journal of Visual Communication and Image Representation*, 73:102947, (2020).
12. Guibiao Liao, Wei Gao, **Qiuping Jiang**, Ronggang Wang, Ge Li, “MMNet: Multi-stage and multi-scale fusion network for RGB-D salient object detection,” *in Proc. of the ACM International Conference on Multimedia (ACM-MM)*, Seattle, WA, USA, (2020).

• 2019:

1. **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, (2019). **ESI Highly Cited Paper**
2. **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, (2019).
3. **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, (2019).
4. **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, (2019).
5. 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, (2019).
6. Wujie Zhou, Sijia Lv, **Qiuping Jiang**, Lu Yu, “Deep road scene understanding,” *IEEE Signal Processing Letters (SPL)*, 26(4): 587-591, (2019).
7. 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, (2019).
8. Sheng Yang, **Qiuping Jiang**, Weisi Lin, Yongtao Wang, “SGDNet: An end-to-end saliency-guided deep neural network for no-reference image quality assessment,” *in Proc.*

of the ACM International Conference on Multimedia (ACM-MM), Nice, France, (2019).

9. Chao Huang, Zongju Peng, Fen Chen, **Qiuping Jiang**, Xin Cui, Gangyi Jiang, “Encoding complexity control for live video applications: an interpretable machine learning approach,” *in Proc. of the IEEE International Conference on Multimedia and Expo (ICME)*, Shanghai, China, (2019).

• 2018:

1. **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, (2018).
2. **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, (2018). **ESI Highly Cited Paper**
3. **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, (2018).
4. 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, (2018).
5. 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, (2018).
6. 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, (2018).
7. Fucui Li, Feng Shao, **Qiuping Jiang**, Randi Fu, Gangyi Jiang, Mei Yu, “Local and global sparse representation for no-reference quality assessment of stereoscopic images,” *Information Sciences (INS)*, 422: 110-121, (2018).
8. Zhenqi Fu, Feng Shao, **Qiuping Jiang**, Randi Fu, Yo-Sung Ho, “Quality assessment of retargeted images using hand-crafted and deep-learned features,” *IEEE Access*, 6: 12008-12018, (2018).
9. Chao Huang, Zongju Peng, Fen Chen, **Qiuping Jiang**, Gangyi Jiang, “Efficient CU and PU decision based on neural network and gray level co-occurrence matrix for intra prediction of screen content coding,” *IEEE Access*, 6: 46643-46655, (2018).
10. Feng Shao, Yan Yang, **Qiuping Jiang**, Gangyi Jiang, Yo-Sung Ho, “Automated quality assessment of fundus images via analysis of illumination, naturalness and structure,” *IEEE Access*, 6: 806-817, (2018).

• 2017 & Before:

1. **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, (2017).

2. **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, (2016).
3. **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, (2015). **2017 JVCI Best Paper Hornerable Mention Award**
4. **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, (2015).
5. **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, (2017).
6. **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, (2015). **Featured Article**
7. **Qiuping Jiang**, Feng Shao, Gangyi Jiang, “MSFE: Blind image quality assessment based on multi-stage feature encoding,” in *Proc. of the IEEE International Conference on Image Processing (ICIP)*, Beijing, China, (2017).
8. **Qiuping Jiang**, Feng Shao, Gangyi Jiang, Mei Yu, Zongju Peng, “Supervised dictionary learning for blind image quality assessment,” in *Proc. of the IEEE International Conference on Visual Communications and Image Processing (VCIP)*, Singapore, (2015).
9. 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, (2017).
10. Feng Shao, **Qiuping Jiang**, Randi Fu, Mei Yu, Gangyi Jiang, “Optimizing visual comfort for stereoscopic 3D display based on color-plus-depth signals,” *Optics Express (OE)*, 24(11): 11640-11653, (2016).
11. Feng Shao, Libo Shen, **Qiuping Jiang**, Randi Fu, Gangyi Jiang, “StereoEditor: Controllable stereoscopic display by content retargeting,” *Optics Express (OE)*, 25(26): 33202-33215, (2017).

HONORS & AWARDS

- 2021 Distinguished Youth Scholar Funding by Zhejiang Provincial Natural Science Foundation
- 2021 Scientific and Technological Progress Award by Ningbo Municipality
- 2020 East Zhejiang Young Scholar by Ningbo University
- 2019 Top Talent of Ningbo Municipality
- 2019 Innovative Talents of Ningbo Pan-3315 Plan

- 2019 Outstanding Doctoral Dissertation Nomination Award by Zhejiang Province
- 2019 Second Prize of Outstanding Scientific Paper Award by Ningbo Municipality
- 2018 Outstanding Doctoral Dissertation Award by Ningbo University
- 2018 First Prize of Cao Guangbiao Scientific Achievements Award by Ningbo University
- 2017 Elsevier JVCi Best Paper Honorable Mention Award

ACADEMIC ACTIVITIES

- **Associate Editor:**

- *Journal of Electronic Imaging*, Since 2022
- *APSIPA Transactions on Signal and Information Processing*, Since 2022

- **Conference Organizer:**

- Special Session on *Multi-source Data Processing and Analysis: Models, Methods and Applications*, APSIPA ASC 2019
- Youth Special Session on *Multimedia Intelligent Coding, Perception and Representation*, ChinaMM 2020

- **Professional Affiliations:**

- Member of IEEE (2018-)
- Member of China Society of Image and Graphics (CSIG) (2018-)
- Member of China Computer Federation (CCF) (2018-)
- Member of Chinese Association for Artificial Intelligence (CAAI) (2019-)

- **Reviewer for Journals:** ACM Computing Survey, ACM Transactions on Multimedia Computing, Communications, and Applications (TOMCCAP), IEEE Transactions on Image Processing (TIP), IEEE Transactions on Neural Networks and Learning Systems (TNNLS), IEEE Transactions on Cybernetics (TCYB), IEEE Transactions on Medical Imaging (TMI), IEEE Transactions on Multimedia (TMM), IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), IEEE Transactions on Broadcasting (TBC), IEEE Transactions on Industrial Electronics (TIE), IEEE Transactions on Industrial Informatics (TII), IEEE Internet of Things Journal (IOTJ), IEEE Multimedia Magazine (MM), IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), IEEE Signal Processing Letters (SPL), IEEE Journal of Oceanic Engineering (JOE), Neurocomputing (NEUCOM), Signal Processing (SP), Journal of Visual Communication and Image Representation (JVCi), Signal Processing: Image Communication (SPIC)

- **Area Chair/TPC Member for Conferences:** ACM International Conference on Multimedia (ACM MM), AAAI Conference on Artificial Intelligence (AAAI), International Joint Conference on Artificial Intelligence (IJCAI), IEEE International Conference on Multimedia and Expo (ICME), IEEE International Conference on Image Processing (ICIP), IEEE Visual Communications and Image Processing Conference (VCIP), Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), National Congress on Image and Graphics (NCIG)