# 张强

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# 个人简历

张强,1995年生,辽宁大连人,大连海事大学信息科学技术学院兴海副教授/讲师,硕士生导师,研究方向为遥感信息处理、计算机视觉与机器学习。在国内外期刊和会议上共发表学术论文20余篇,其中以第一作者在IEEE TIP、IEEE TNNLS、IEEE TGRS、ISPRS P&RS、ESSD等图像处理/遥感/机器学习/地学领域的顶级期刊上发表SCI论文12篇。谷歌学术总引用1200余次,单篇一作最高被引300余次,3篇入选为ESI高被引论文。曾担任国际地学与遥感大会分会场主席,以及RSE、IEEE TIP/TGRS/TCSVT等国际期刊审稿人。先后荣获李小文遥感科学青年奖、武汉大学"研究生学术创新奖"特等奖(校长奖)、王之卓创新人才特等奖、大连市高层次人才青年才俊等奖项荣誉。

# 研究方向

- 遥感信息处理与应用: 高光谱遥感、多时相遥感、海洋遥感、定量遥感
- → 计算机视觉: 图像复原、图像融合、图像超分、底层视觉信息处理
- 机器学习: 深度学习、张量表达、耦合数据驱动与模型驱动

## 工作经历

• 2022.07 - 至今, 大连海事大学, 信息科学技术学院, 兴海副教授

## 教育经历

● 2019.09 - 2022.06, 武汉大学, 摄影测量与遥感专业, 导师: 张良培教授、袁强强教授 博士

◆ 2017.09 - 2019.06, 武汉大学,摄影测量与遥感专业,导师: 袁强强教授

硕士

• 2013.09 - 2017.06, 武汉大学, 测绘工程专业, 导师: 袁强强教授

学士

# 科研项目

- ●中央高校基本科研业务费: 遥感高时-空-谱一体化信息融合方法研究,017231162,2023/01-2023/12,主持
- ◆大连海事大学人才启动经费: 优秀青年人才引进项目,02500363,2022/07-2025/07,主持

# 教学课程

◆本科生课程: 2022-2023学年第2学期,64学时,《离散数学》

## 期刊论文

[16] **Q. Zhang**, Y. Zheng, Q. Yuan, M. Song, H. Yu, and Y. Xiao, "Hyperspectral image denoising: From model-driven, data-driven, to model-data-driven," *IEEE Transactions on Neural Networks and Learning Systems*, in press,

- 2023. (SCI 1区, 机器学习领域Top期刊, IF=10.4)
- [15] **Q. Zhang**, Y. Dong, Q. Yuan, M. Song, and H. Yu, "Combined deep priors with low-rank tensor factorization for hyperspectral image restoration," *IEEE Geoscience and Remote Sensing Letters*, vol. 20, pp. 1-5, 2023. (SCI 2X, IF=4.8)
- [14] **Q. Zhang**, Q. Yuan, M. Song, H. Yu, and L. Zhang, "Cooperated spectral low-rankness prior and deep spatial prior for HSI unsupervised denoising," *IEEE Transactions on Image Processing*, vol. 31, pp. 6356-6368, 2022. (SCI 1区, CCF-A, 图像处理领域Top期刊, IF=10.6)
- [13] **Q. Zhang**, Q. Yuan, T. Jin, M. Song, and F. Sun, "SGD-SM 2.0: an improved seamless global daily soil moisture long-term dataset from 2002 to 2022," *Earth System Science Data*, vol. 14, no. 10, pp. 4473–4488, 2022. (SCI 1区, 地学领域Top期刊, IF=11.4)
- [12] **Q. Zhang**, Q. Yuan, J. Li, Y. Wang, F. Sun, and L. Zhang, "Generating seamless global daily AMSR2 soil moisture (SGD-SM) long-term products for the years 2013-2019," *Earth System Science Data*, vol. 13, no. 3, pp. 1385-1401, 2021. (SCI 1区, 地学领域Top期刊, IF=11.4)
- [11] **Q. Zhang**, Q. Yuan, Z. Li, F. Sun, and L. Zhang, "Combined deep prior with low-rank tensor SVD for thick cloud removal in multitemporal images," *ISPRS Journal of Photogrammetry and Remote Sensing*, vol. 177, pp. 161-173, 2021. (SCI 1区, 遥感领域Top期刊, IF=12.7)
- [10] **Q. Zhang**, Q. Yuan, J. Li, F. Sun, and L. Zhang, "Deep spatio-spectral Bayesian posterior for hyperspectral image non-i.i.d. noise removal," *ISPRS Journal of Photogrammetry and Remote Sensing*, vol. 164, pp. 125-137, 2020. (SCI 1区, 遥感领域**Top**期刊, IF=12.7)
- [09] **Q. Zhang**, Q. Yuan, J. Li, Z. Li, H. Shen, and L. Zhang, "Thick cloud and cloud shadow removal in multitemporal images using progressively spatio-temporal patch group deep learning," *ISPRS Journal of Photogrammetry and Remote Sensing*, vol. 162, pp. 148-160, 2020. (SCI 1区, 遥感领域Top期刊, IF=12.7)
- [08] **Q. Zhang**, Q. Yuan, J. Li, X. Liu, H. Shen, and L. Zhang, "Hybrid noise removal in hyperspectral imagery with spatial-spectral gradient network," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 57, no. 10, pp. 7317-7329, 2019. (SCI 1区, 遥感领域**Top**期刊, IF=8.2)
- [07] **Q. Zhang**, Q. Yuan, C. Zeng, X. Li, and Y. Wei, "Missing data reconstruction in remote sensing image with a unified spatial-temporal-spectral deep network," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 56, no. 8, pp. 4274-4288, 2018. (SCI 1区, 遥感领域Top期刊, IF=8.2, ESI高被引论文)
- [06] **Q. Zhang**, Q. Yuan, J. Li, Z. Yang, and X. Ma, "Learning a dilated residual network for SAR image despeckling," *Remote Sensing*, vol. 10, no. 2, 196, 2018. (SCI 2X, IF=5)
- [05] Q. Yuan, **Q. Zhang**, J. Li, H. Shen, and L. Zhang, "Hyperspectral image denoising employing a spatial-spectral deep residual convolutional neural network," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 57, no. 2, pp. 1205-1218, 2019. (SCI 1区, 遥感领域Top期刊, IF=8.2, **ESI**高被引论文)
- [04] Y. Xiao, Q. Yuan, **Q. Zhang**, and L. Zhang, "Deep blind super-resolution for satellite video," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 61, pp. 1-16, 2023. (SCI 1区, 遥感领域Top期刊, IF=8.2)
- [03] Y. Xiao, Q. Yuan, J. He, **Q. Zhang**, X. Su, and L. Zhang, "Space-time super-resolution for satellite video: A joint framework based on multi-scale spatial-temporal transformer," *International Journal of Applied Earth Observation and Geoinformation*, vol. 108, 102731, 2022. (SCI 1区, 遥感领域Top期刊, IF=7.5, ESI高被引论文)
- [02] W. Zhang, Z. Li, H. Sun, **Q. Zhang**, P. Zhuang, and C. Li, "SSTNet: Spatial, spectral, and texture aware attention network using hyperspectral image for corn variety identification," *IEEE Geoscience and Remote Sensing Letters*, vol. 19, pp. 1-5, 2022. (SCI 2 🗵, IF=4.8)
- [01] J. Lin, T. Huang, X. Zhao, Y. Chen, Q. Zhang, and Q. Yuan, "Robust thick cloud removal for multi-temporal

remote sensing images using coupled tensor factorization," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, pp. 1-16, 2022. (SCI 1区, 遥感领域Top期刊, IF=8.2)

## 会议论文

- [05] **Q. Zhang**, and J. Zhu, "Early wildfire detection based on temporal, spatial and spectral information fusion," *IGARSS*, in Pasadena, USA, 2023. (EI, Poster)
- [04] **Q. Zhang**, F. Sun, Q. Yuan, and L. Zhang, "Thick cloud removal for Sentinel-2 time-series images via combining deep prior and low-rank tensor completion," *IGARSS*, in Brussels, Belgium, 2021. (EI, Oral)
- [03] **Q. Zhang**, F. Sun, Q. Yuan, J. Li, H. Shen, and L. Zhang, "Combined the data-driven with model-driven stragegy: A novel framework for mixed noise removal in hyperspectral image," *IGARSS*, in Hawaii, USA, 2020. (EI, Oral)
- [02] **Q. Zhang**, Q. Yuan, J. Li, H. Shen, and L. Zhang, "Cloud and shadow removal for Sentinel-2 by progressively spatiotemporal patch group learning," *IGARSS*, in Yakohama, Japan, 2019. (EI, Oral)
- [01] **Q. Zhang**, Q. Yuan, H. Shen, and L. Zhang, "A unified spatial-temporal-spectral learning framework for reconstructing missing data in remote sensing images," *IGARSS*, in Valencia, Spain, 2018. (EI, Poster)

# 学术兼职

#### 学会兼职:

- IEEE, 会员
- 中国图象图形学学会, 会员
- 中国图象图形学学会遥感图像专业委会,委员

#### 会议组织:

- 2023年全国热红外遥感大会, 组织委员会委员
- 2021年国际地学与遥感大会 (IGARSS), 分会场主席

#### 期刊审稿人:

- Remote Sensing of Environment (RSE)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- IEEE Transactions on Geoscience and Remote Sensing (TGRS)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI)
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)
- IEEE Geoscience and Remote Sensing Letters (GRSL)
- IEEE Access
- Climatic Change
- Neurocomputing
- Electronics Letters
- Analytical Methods
- IET Image Processing
- Imaging Science Journal
- Evolutionary Intelligence

- Science of Remote Sensing
- Journal of Applied Remote Sensing
- Wireless Communications and Mobile Computing

#### 奖项荣誉

- 2023年,大连市高层次人才青年才俊
- 2022年,大连海事大学"兴海"高层次人才
- 2022年,武汉大学十大杰出青年(学生)
- 2022年,武汉大学优秀毕业研究生
- 2021年,李小文遥感科学青年奖
- 2021年,博士研究生国家奖学金
- 2021年,第六届全国成像光谱对地观测学术研讨会优秀报告奖
- 2021年,武汉大学优秀研究生标兵
- 2021年,武汉大学学业奖学金一等奖
- 2020年,武汉大学"研究生学术创新奖"特等奖(校长奖)
- 2020年,中国大学生自强之星
- 2020年,湖北省大学生自强之星标兵
- 2020年,王之卓创新人才奖特等奖
- 2020年,武汉大学学业奖学金一等奖
- 2020年,武汉大学优秀研究生
- 2019年,武汉大学光华奖学金
- 2019年,武汉大学十大励志之星
- 2018年,硕士研究生国家奖学金
- 2018年,武汉大学乐群学术之星
- 2018年,武汉大学学业奖学金一等奖
- 2017年,武汉大学优秀本科毕业生
- 2015年, 国家励志奖学金