

# SHUN BI 毕顺

Currently searching for a PD position

My current interest is to build an algorithm blending framework for estimating optical active constituents, such as Chlorophyll-a concentration, across Case I and II waters from remote sensing data. I am also interested in building Chla algorithms for specific water types (e.g., turbid Case II waters), column-integrated algal biomass for inland lakes, atmospheric correction, and data gap-filling for satellite imagery.

## EDUCATION

2012  
|  
2016

### Jiangsu Normal University

B.S. in Remote Sensing Science and Technology Xuzhou, China

Thesis: Analysis of Spatiotemporal Characteristics of Drought in Qinghai-Tibet Region Based on Meteorological Drought Composite Index

2016  
|  
Now

### Nanjing Normal University

Ph.D in Remote Sensing of Environment Nanjing, China

Thesis: Remote Sensing of Column-integrated Algal Biomass for Inland Waters Based on Soft Classification

(Qualified for the Successive Master-Doctor Program in 2018 and expected to receive the degree in June 2021)

## SELECTED PUBLICATIONS

2021

### Assessment of algorithms for estimating chlorophyll-a concentration in inland waters: A round-robin scoring method based on the optically fuzzy clustering

IEEE Transactions on Geoscience and Remote Sensing, *press*, IF 5.855

Bi S, Li Y, Liu G, Song K, Xu J, Dong X, Cai X, Mu M, Miao S, Lyu H

2019

### Optical classification of inland waters based on an improved Fuzzy C-Means method \*

Optics Express, 27(24), 34838–34856, IF 3.669

Bi S, Li Y, Xu J, Liu G, Song K, Mu M, Lyu H, Miao S, Xu J

2019

### Quantifying spatiotemporal dynamics of the column-integrated algal biomass in nonbloom conditions based on OLCI data: a case study of Lake Dianchi, China \*

IEEE Transactions on Geoscience and Remote Sensing, 57(10), 7447–7459, IF 5.855

Bi S, Li Y, Lyu H, Mu M, Xu J, Lei S, Miao S, Hong T, Zhou L



## Contact Info

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🌐 [github.com/bishun945](https://github.com/bishun945)

📄 [Shun\\_Bi](#)

🐦 [bishun945](#)

For more information, please contact me via email.

## Skills

Experienced in atmospheric correction, Chla algorithm and optical water clustering.

Full experience in remote sensing image processing.

R, Python, IDL, MATLAB, SeaDAS, SNAP, Ubuntu, macOS.

## Languages

Mandarin (native), English (written and oral)

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Last updated on 2021-02-19.

- 2018 ● **Inland water atmospheric correction based on turbidity classification using OLCI and SLSTR synergistic observations \***  
Remote Sensing, 10(7), 1002, IF 4.118  
Bi S, Li Y, Wang Q, Lyu H, Liu G, Zheng Z, Du C, Mu M, Xu J, Lei S
- 2018 ● **Estimation of chlorophyll-a concentration in Lake Erhai based on OLCI data \***  
Journal Lake Science, 30(3), 701–712 (*in Chinese*), IF 1.445  
Bi S, Li Y, Lu H, Zhu L, Mu M, Lei S, Wen S, Ding X
- 2020 ● **Tracking spatio-temporal dynamics of POC sources in eutrophic lakes by remote sensing \***  
Water Research, 168, 115162, IF 9.13  
Xu J, Lei S, Bi S, Li Y, Lyu H, Xu J, Xu X, Mu M, Miao S, Zeng S & others
- 2020 ● **An OLCI-based algorithm for semi-empirically partitioning absorption coefficient and estimating chlorophyll a concentration in various turbid case-2 waters \***  
Remote Sensing of Environment, 239, 111648, IF 9.085  
Liu G, Li L, Song K, Li Y, Lyu H, Wen Z, Fang C, Bi S, Sun X, Wang Z & others
- 2021 ● **Simultaneous inversion of concentrations of POC and its endmembers in lakes: A novel remote sensing strategy \***  
Science of the Total Environment, 770, 145249, IF 6.551  
Xu J, Li Y, Lyu H, Lei S, Mu M, Bi S, Xu J, Xu X, Miao S, Li L, & others
- 2021 ● **Characteristics of the chromophoric dissolved organic matter of urban black-odor rivers using fluorescence and UV-visible spectroscopy \***  
Environmental Pollution, 268, 115763, IF 6.793  
Miao S, Lyu H, Xu J, Bi S, Guo H, Mu M, Lei S, Zeng S, Liu H



## R PACKAGES

- 2020 ● **FCMm: Water spectra fuzzy-clustering, algorithm assessment, and blending \***  
Version 0.10.3  
Bi S, Li Y, Liu G
- 2020 ● **DAMATO: Data Management Toolbox \***  
Version 0.0.7  
Bi S, Li Y, Cheng X
- 2020 ● **seadasr: Running seadas with R \***  
Version 0.0.1 (*private*)  
Bi S, Liu G, Li Y

- 2019 ● **TSSIM: Time-Series-based Spatial Interpolation Method \***  
Version 0.0.2 (*private*)  
Bi S, Li Y



## AWARDS AND HONORS

- 2017 ● **the Third Prize of 2017 NNU Graduate Mathematical Modeling Competition**  
Title: Research on Feature Selection and Classifier Algorithm in Intrusion Detection (*in Chinese*)  
Bi S, Chen B, Ding X
- 2017 ● **the Second Prize of 2017 National Graduate Mathematical Modeling Competition**  
Title: Foreground target extraction based on surveillance video (*in Chinese*)  
Bi S, Chen B, Ding X
- 2018 ● **ESA-MOST China Dragon 4 Cooperation: BEST POSTER AWARD**  
Title: Inland water atmospheric correction based on turbidity classification using OLCI and SLSTR synergistic observations
- 2018 ● **the Third Prize of the 6th Sharing Cup College Student Science and Technology Resources sharing service innovation competition \***  
Title: Evaluation of atmospheric correction methods for inland lakes based on Sentinel-3 OLCI data (*in Chinese*)  
Bi S, Hong T, Zhou L
- 2019 ● **the First Prize of the 1st Hyerspectral Imagery Processing Competition - Orbit Cup \***  
Title: Evaluation of the application of ZH-1 data in remote sensing of water color in inland lakes (*in Chinese*)  
Bi S, Hong T, Li L



## GRANTS AND FELLOWSHIPS

- 2018 ● **Postgraduate Research & Practice Innovation Program of Jiangsu province, China**  
Project title: Research on the three-dimensional spatiotemporal pattern of the total biomass of cyanobacteria in Taihu Lake based on remote sensing technology (*in Chinese*)
- 2016 ● **the Second Prize Scholarship**  
Funded by Nanjing Normal University
- 2017 ● **the First Prize Scholarship**  
Funded by Nanjing Normal University
- 2020
- 2019 ● **Scholarship of Saiteng Fenghui**  
Funded by Suzhou Secote Precision Electronic Co., Ltd.

- 2020 ● **China National Scholarship**  
Funded by Ministry of Education of the People's Republic of China

## CONFERENCES

- 2017 ● **Jiangsu University Geography Postgradutae Forum**  
📍 Nanjing, China
- 2017 ● **the 5th Graduate Forum of Jiangsu Society of Oceanology and Lomnology**  
📍 Nanjing, China
- 2017 ● **the 1st China Plateau Lake Forum**  
📍 Kunming, China
- 2018 ● **Jiangsu University Geography Postgradutae Forum**  
📍 Nanjing, China
- 2018 ● **ESA-MOST DRAGON 4 PROGRAMME - Advanced Training Course in Ocean & Coastal Remote Sensing**  
📍 Shenzhen, China
- 2018 ● **National Forum for Doctoral Students in Geographic Information Science**  
📍 Nanjing, China
- 2018 ● **the 18th Water Color Remote Sensing Conference in China**  
📍 Zhanjiang, China
- 2019 ● **the 1st Wetland Remote Sensing Conference in China**  
📍 Changchung, China
- 2019 ● **the 19th Water Color Remote Sensing Conference in China**  
📍 Sanya, China
- 2020 ● **the 2nd Wetland Remote Sensing Conference in China**  
📍 Online
- 2020 ● **National Forum for Doctoral Students in Geographic Information Science**  
📍 Online

## References

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China

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