

CURRICULUM VITAE

ZHIGANG CAO

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Education

- Ph.D. Candidate, Cartography and Geographic Information System
University of Chinese Academy of Sciences Sep 2017~Present
- M.S., Cartography and Geographic Information System
University of Chinese Academy of Sciences Sep 2014~Jul 2017
- B.S., Geographic Information System
Anhui Normal University Sep 2010~Jul 2014

Publications

Published

- ✧ Zhigang Cao, Hongtao Duan, Haishan Cui et al., Remote estimation of suspended matters concentrations using VIIRS in Lake Hongze, China. *Journal of Infrared and Millimeter Waves*, 2016, 35, 462-469
- ✧ Zhigang Cao, Hongtao Duan, Lian Feng et al., Climate- and human-induced changes in suspended particulate matter over Lake Hongze on short and long timescales. *Remote Sensing of Environment*, 2017, 192, 98-113
- ✧ Zhigang Cao, Hongtao Duan, Ming Shen et al., Using VIIRS/NPP and MODIS/Aqua data to provide a continuous record of suspended particulate matter in a highly turbid inland lake. *International Journal of Applied Earth Observation and Geoinformation*, 2018, 64, 256-265
- ✧ Zhigang Cao, Hongtao Duan, Qingjun Song et al., Evaluation of sensitivity of the next-generation China's ocean satellite sensor MWI onboard Tiangong-2 space lab over inland waters. *International Journal of Applied Earth Observation and Geoinformation*, 2018, 71, 109-120
- ✧ Zhigang Cao, Ronghua Ma, Hongtao Duan et al., Effects of broad bandwidth on the remote sensing of inland waters. *ISPRS Journal of Photogrammetry and Remote Sensing*, 2019, 153:110-122
- ✧ Zhigang Cao, Ronghua Ma, Hongtao Duan et al., Impacts of revisit time of satellite on the long-term suspended particulate matter in inland lakes, *Remote sensing*, 2019, 11 (23), 2785.

Under review and preparing

- ✧ Zhigang Cao, Ronghua Ma, Hongtao Duan et al., A machine learning approach to estimate chlorophyll-a from Landsat-8 measurements in inland lakes, *Remote Sensing of Environment*, 2019, Under Review
- ✧ Zhigang Cao, Ronghua Ma, Jianqiang Liu et al., Improved radiometric and spatial capabilities of the Coastal Zone Imager onboard Chinese HY-1C satellite for inland lakes, *IEEE geoscience and remote sensing letters*, 2019, Under Review
- ✧ Zhigang Cao, Ronghua Ma, Hongtao Duan et al., Human cultivation induced higher chlorophyll-a concentration in small lakes on eastern China, preparing.

Research Interests

- Remote sensing of aquatic environment
- Satellite data processing
- Ocean, coastal and inland water optics
- Machine learning and algorithm development

Professional skills

- Field Skills: Measuring spectrum and laboratory analysis
- Processional Skills: Linux, SeaDAS, Matlab, IDL, Python

Research experiences

Advisor

- Sep 2014~Jul 2017, Research topic: Using MODIS and VIIRS to remote sensing of the suspended particular matter in Lake Hongze Prof. Hongtao Duan

- Sep 2017~Present, Research topic: Using Landsat series data to extend chlorophyll-a dataset record in inland lakes Prof. Ronghua Ma
- July 2019~Present, Research topic: Using airborne hyperspectral instrument (AVIRIS) to retrieve the chlorophyll-a in Lake Mono, California Prof. John M. Melack

Awards

- Dean's Special Award, Nanjing Branch of Chinese Academy of Sciences Oct 2019
- National Scholarship (For Ph.D Candidate) Oct 2018
- Wu Yi Sun scholarship, Nanjing Branch of Chinese Academy of Sciences Jul 2017
- National Scholarship (For Master) Oct 2016
- Merit Students, University of Chinese Academy of Sciences Jun 2016, May 2018
- Outstanding graduates, Anhui Province, China Jun 2014