

## Curriculum Vitae

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### Education

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2013.7 – 2016.7 Ph.D. in Cartography and Geographic Information Systems  
(supervisor: Qinhua Liu)  
Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, P.R.China

2011.9 - 2013.7 M.S. in Cartography and Geographic Information Systems  
(supervisor: Qinhua Liu)  
Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, P.R.China

2007.9 - 2011.7 B.E. in Remote Sensing Science and Technology  
School of Remote Sensing Information Engineering, Wuhan University, Wuhan, China

### Research interests

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The solar induced fluorescence and radiative transfer modeling in vegetation canopies of natural and agricultural ecosystems, the extraction of vegetation biophysical parameters (e.g., leaf area index), the field LAI measurements and the validation of canopy structure products.

### Publications in Journals

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1. **Yelu Zeng**, Jing Li, Qinhua Liu, Alfredo R. Huete, et al., A radiative transfer model for heterogeneous agro-forestry scenarios, *IEEE Transactions on Geoscience and Remote Sensing*, 2016, 54(8): 4613-4628
2. **Yelu Zeng**, Jing Li, Qinhua Liu, Alfredo R. Huete, et al., An iterative BRDF/NDVI inversion algorithm based on *a posteriori* variance estimation of observation errors, *IEEE Transactions on Geoscience and Remote Sensing*, 2016, 54(11): 6481
3. **Yelu Zeng**, Jing Li, Qinhua Liu, et al., A sampling strategy for remotely sensed

- LAI product validation over heterogeneous land surfaces, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 2014, 7: 3128-3142
4. **Yelu Zeng**, Jing Li, Qinhuo Liu, et al., Extracting Leaf Area Index by Sunlit Foliage Component from Downward-Looking Digital Photography under Clear-Sky Conditions, *Remote Sensing*, 2015, 7(10): 13410-13435
  5. **Yelu Zeng**, Jing Li, Qinhuo Liu, Alfredo R. Huete, et al., An optimal sampling design for observing and validating long-term leaf area index with temporal variations in spatial heterogeneities, *Remote Sensing*, 2015, 7: 1300-1319
  6. **Yelu Zeng**, Jing Li, Qinhuo Liu, Junhua Bai. A sampling strategy based on NDVI prior knowledge for LAI ground measurements. *Chinese Journal of Remote Sensing*, 2013, 17(1): 107-121
  7. **Yelu Zeng**, Jing Li, Qinhuo Liu. Global LAI Ground Validation Dataset and Product Validation Framework: A Review. *Advances in Earth Science*, 2012, 27(2): 165-174
  8. Gaofei Yin, Qinhuo Liu, Jing Li, **Yelu Zeng**, Baodong Xu. The Effect of Crown Shape on the Estimation of Gap Fraction and Leaf Area Index. *Chinese Journal of Remote Sensing*, 2014, 18(4): 752-759
  9. Gaofei Yin, Jing Li, Qinhuo Liu, Longhui Li, **Yelu Zeng**, et al., Improving Leaf Area Index Retrieval Over Heterogeneous Surface by Integrating Textural and Contextual Information: A Case Study in the Heihe River Basin, *IEEE Geoscience and Remote Sensing Letters*, 2015, 12: 359-363
  10. Gaofei Yin, Jing Li, Qinhuo Liu, Weiliang Fan, Baodong Xu, **Yelu Zeng**, et al. Regional Leaf Area Index Retrieval Based on Remote Sensing: The Role of Radiative Transfer Model Selection. *Remote Sensing*, 2015, 7, 4604-4625
  11. Gaofei Yin, Ainong Li, Huaan Jin, Wei Zhao, Jinhu Bian, Yonghua Qu, **Yelu Zeng**, Baodong Xu. Derivation of temporally continuous LAI reference maps through combining the LAINet observation system with CACAO. *Agricultural and Forest Meteorology*, 2016, 233: 209-221
  12. Jing Zhao, Jing Li, Qinhuo Liu, Weiliang Fan, Bo Zhong, Shanlong Wu, Le Yang, **Yelu Zeng**, et al., Leaf Area Index Retrieval Combining HJ1/CCD and Landsat8/OLI Data in the Heihe River Basin, China, *Remote Sensing*, 2015, 7, 6862-6885
  13. Baodong Xu, Jing Li, Qinhuo Liu, Alfredo R. Huete, Qiang Yu, **Yelu Zeng**, et al., Evaluating Spatial Representativeness of Station Observations for Remotely Sensed Leaf Area Index Products, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 2016, 9(7): 3267-3282
  14. Gaofei Yin, Ailong Li, **Yelu Zeng**, et al., A Cost-Constrained Sampling Strategy in Support of LAI Product Validation in Mountainous Areas. *Remote Sensing*, 2016, 8(9): 704.
  15. Baodong Xu, Jing Li, Qinhuo Liu, Xiaozhou Xin, **Yelu Zeng**, et al., Review of methods for evaluating representativeness of ground station observations. *Chinese Journal of Remote Sensing*, 2015, 19(5):703-718
  16. Baodong Xu, Jing Li, Qinhuo Liu, **Yelu Zeng**, et al., Spatial representativeness

- estimation of station observation in validation of LAI products: A case study with CERN *in-situ* data. *Chinese Journal of Remote Sensing*, 2015, 19(6): 910-927
17. Jing Zhao, Jing Li, Qinhua Liu, Wenjie Fan, **Yelu Zeng**, et al., Leaf area index inversion combining with HJ-1/CCD and Landsat 8/OLI data in the middle reach of the Heihe River basin. *Chinese Journal of Remote Sensing*, 2015, 19(5):733-749
  18. Baodong Xu, Jing Li, Qinhua Liu, **Yelu Zeng** et al., Spatial representativeness estimation of station observation in validation of LAI products: A case study with CERN *in-situ* data. *Chinese Journal of Remote Sensing*, 2015, 19(6) : 910- 927
  19. Qinhua Liu, Biao Cao, **Yelu Zeng**, et al., Recent progresses on the remote sensing radiative transfer modeling over heterogeneous vegetation canopy. *Chinese Journal of Remote Sensing*, 2016, 20(5):933–945
  20. Gaofei Yin, Ainong Li, Wei Zhao, **Yelu Zeng**, et al. A Multi-objective Constrained Sampling Strategy for Field Experiment in Mountainous Areas. *Remote Sensing Technology and Application*, 2016, 31(1): 23-30
  21. Wentao Yu, Jing Li, Qinhua Liu, **Yelu Zeng**, et al. Extraction and Analysis of Land Cover Heterogeneity over China. *Advances in Earth Science*, 2016, 31(10): 1067-1077
  22. Cong Wang, Jing Li, Qinhua Liu, Junhua Bai, Baodong Xu, Jing Zhao, **Yelu Zeng**. Validation and analysis of remote sensing phenology products in the Heihe River Basin. *Chinese Journal of Remote Sensing*, 2017, 21(3): 442-457