

# Xiuqin Fang

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## EDUCATION

- **Ph.D. in Hydrology and Water Resources**  
2005-2010 Hohai University, Nanjing, China  
**Area of Specialization:** Hydrologic modelling and application of GIS (Geographic Information System) and RS (Remote Sensing)  
**Ph.D thesis:** Hydrologic response to land use and land cover changes within the context of catchment-scale spatial information
- **M.S. in Cartography and GIS**  
2001-2004 Nanjing University, Nanjing, China  
**Area of Specialization:** GIS/RS application on vegetation study  
**M.S thesis:** LAI mapping and scaling over the Heihe River basin using remotely-sensed data
- **B.S. in Cartography and GIS**  
1997-2001 Nanjing University, Nanjing, China

## WORK EXPERIENCE

- 2004-present: Assistant professor in Hohai University, Nanjing, China

## COURSES TAUGHT

- **Undergraduate:** Digital Elevation Model, Geographic Information System, Principles of Cartography
- **Graduate:** Advances in Remote Sensing Application

## RESEARCH PROJECTS

- 2010-2012, Inversion of the Basin-Scaled Spatial and Temporal Distribution of Evapotranspiration Based on Remote Sensing, Fundamental Study Funds of Chinese Central Universities (2010B08114) (Principle Investigator)
- 2007-2009, Investigation of the Impacts of Land Use Changes on Hydrological Processes in Semi-arid Areas Based on Remote Sensing, Innovation Funds of State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering, China (2007) (Principle Investigator)
- 2009- 2012 Detection and Prediction of the Ecosystem Health in the Yellow River Delta Wetland, National Natural Science Funds (40871230) (Co-Investigator)
- 2007-2010, Investigation on the Land Use Pattern over Basin Scale Based on Protection of River Health (200701031) (Co-Investigator)

- 2005-2010, Study on the Terrestrial Eco-Hydrological Processes and Interactions in Semi-arid Region of China, National Key Basic Research Program of China (2006CB400502) (Participated)
- 2001-2004, Theory and Application for Retrieval and Fusion of Quantitative Spatial and Temporal Information from Complex Natural Environment, National Key Basic Research Program of China (2001CB309404) (Participated)
- 2001-2004, Remote Sensing Study in Water Circulation and Environmental Change Issues over the Yangtze River Basin, China, Oversea Young Talent Scientist Foundation (40128001) (Participated)
- 2001-2004, Water Resource & Environmental Change Studies on the Urumqi River Basin by Means of Remote Sensing and GIS Techniques, Key Foundation of the National Education Department (2001) (Participated)

## INTERNATIONAL CONFERENCES AND WORKSHOPS

- July-August, 2009  
Graduate Summer School by MoE, NSFC & SAFEA (Topic: Environmental Change and Hydrologic Processes), Hohai University, Nanjing, China
- July, 2007  
International Geoscience and Remote Sensing Symposium (IGARSS 2007), Barcelona, Spain
- May, 2007  
GEOINFORMATICS' 2007, Nanjing University, China
- November, 2006  
Workshop on Digital Images Processing of Remote Sensing, given by Author P. Cracknell, Nanjing University, Nanjing, China
- October, 2005  
International Symposium on Methodology in Hydrology, Hohai University, Nanjing, China
- July, 2005  
Workshop on Quantitative Remote Sensing, Peking University, Beijing, China

## PUBLICATIONS

- Fang, X.Q.**, L.L. Ren, Q.F. Li, D.Z. Zhao, X.F. Liu, Q.A. Zhu, & F. Yuan. Estimating and validation basin-scale actual evapotranspiration using MODIS images and hydrologic models. *Hydrology Research*. 2012, 43.1-2:156-166.
- Fang, X.Q.**, L.L. Ren, Q.F. Li, Q.A. Zhu, P. Shi, & Y.H. Zhu. Hydrologic response to land use and land cover changes within the context of catchment-scale spatial information. *Journal of Hydrologic Engineering*, 2011, accepted.
- Zhu, Q.A., H. Jiang H, J. X. Liu, X.H. Wei, C.H. Peng, **X.Q. Fang**, G.M. Zhou, S.Q. Yu, W.M. Ju. Evaluating the spatial-temporal variations of water budget across China over 1951-2006 using IBIS model. *Hydrological Processes*, 2010, 24(4), 429-445.

- Liu, X.F., L.L. Ren, V. P. Singh, **X.Q. Fang**, Z. Yu and W. Zhang. Quantifying the effect of land use and land cover changes on green water and blue water in northern part of China. *Hydrological Earth System Science*, 2009(13): 735-747
- Zhu, Y.H., L.L. Ren, T. H. Skaggs, H.S. Lü, Z.Y. Yu, Y.Q. Wu, and **X.Q. Fang**. Simulation of *Populus euphratica* root uptake of groundwater in an arid woodland of the Ejina Basin, China. *Hydrological Process*, 2009(23): 2460-2469
- Zhu, Q., H. Jiang, J. Liu, C. Peng, **X.Q. Fang**, S. Yu, G. Zhou, X. Wei, W. Ju. Forecasting carbon budget under climate change and CO<sub>2</sub> fertilization in Zhejiang Province of China using IBIS model. *Polish Journal of Ecology*, 2010, accepted.
- Zhu, Q.A., H. Jiang, C.H. Peng, J. X. Liu, X.H. Wei, **X.Q. Fang**, S.R. Liu, G.M. Zhou and S.Q. Yu. Evaluating the effects of future climate change and elevated CO<sub>2</sub> on the water use efficiency in terrestrial ecosystems of China. *Ecological Modelling*, 2010, revised.
- Fang, X.Q.**, L.L. Ren, Q.F. Li, Q.A. Zhu, X.F. Liu & Y.H. Zhu. Applicable algorithm to map daily evapotranspiration using MODIS images for the Laohahe River basin, northeastern China. *International Association of Hydrological Sciences (IAHS) Publ. (Red Book) no 333 (2009): 268-273.*
- Fang, X.Q.**, L.L. Ren, Q.F. Li, Fei Yuan. Hydrological responses of a semiarid catchment to land use change in North China: case study the Laohahe River Basin. *Proceeding of International Geoscience and Remote Sensing Symposium (IGARSS)*, 2008: 3478-3481
- Fang, X.Q.**, L.L. Ren, Wanchang Zhang, Qian Zhu. LAI mapping and scaling over the Heihe River basin using remotely-sensed data. *International Association of Hydrological Sciences (IAHS) Publ. (Red Book) no 311 (2007): 628-634*
- Zhu, Q., H. Jiang, J. Liu, **X.Q. Fang**, S.Yu. Simulation and Trend Analysis of Soil Temperature in China from 1955 to 2006 Using IBIS Model (in Chinese). *Scientia Geographica Sinica* 2010, 30(3), 355-362.
- Fang, X.Q.**, L.L. Ren, Detection of land use change in the Laohahe River Basin of West Liaohe River based on remotely-sensed images. *Journal of Geo-Information Science (in Chinese)*, 2009, 11(1):125-131
- Fang, X.Q.**, L.L. Ren, Q.F. Li. Variations of hydrologic factors elements in the Laohahe River Basin. *Journal of Hohai University (Natural Sciences) (in Chinese)*, 2009, 37(6): 620-624
- Fang, X.Q.**, W.C. Zhang, S.C. Liu. The Estimation of LAI in Heihe River Basin using remotely sensed data. *Remote Sensing for Land & Resources (in Chinese)*, 2004, 1: 26-30
- Fang, X.Q.**, W.C. Zhang. The Application of Remotely Sensed data to the estimation of the Leaf Area Index, *Remote Sensing for Land & Resources (in Chinese)*, 2003, 3: 57-61