

# Dr. Yaxing Wei

## Environmental Science Division Oak Ridge National Laboratory

P.O. Box 2008, MS 6407

[weiy@ornl.gov](mailto:weiy@ornl.gov)

Oak Ridge, TN 37831

202-372-7976

---

### EDUCATION

**Ph.D. in Safety Technology and Engineering**, Dec. 2007.

University of Science and Technology of China (USTC), Hefei, Anhui, China P.R.

Cooperation Research in George Mason University (GMU), Fairfax, VA. USA

**B.S. in Electronic Engineering and Information Science**, Jul. 2001.

Special Class for Gifted Young (SCGY), University of Science and Technology of China, Hefei, China P.R.

### RESEARCH INTERESTS

- Advanced geospatial data management, visualization, analysis, and delivery; Grid and collaborative computing; Large-scale distributed data integration and sharing; and Geospatial workflow modeling, execution, and management

### PROFESSIONAL EXPERIENCE

**Post-doctoral Research Associate**, Environmental Sciences Division, Oak Ridge National Lab 2008 – present

- The Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC)
- Modeling and Synthesis Thematic Data Center (MAST-DC)
- National Hydropower Assets & Resources Assessment Project

**Research Assistant**, George Mason University 2004 – 2008

- Integration of OGC and Grid Technologies for Earth Science Modeling and Applications. Sponsored by NASA.
- GeoBrain (Mobilization of NASA EOS data and information through Web services and knowledge management technologies for higher-education teaching and research). Sponsored by NASA.

### SELECTED PUBLICATIONS

- Peng Yue, Liping Di, Peisheng Zhao, Wenli Yang, Genong Yu, and **Yaxing Wei**, Semantic Augmentations to an ebRIM Profile of Catalogue Service for the Web. In Standard-Based Data and Information Systems for Earth Observation (Liping Di and H. K. Ramapriyan eds.), p189-208, ISBN: 978-3-540-88263-3, Springer-Verlag, Berlin, Heidelberg, 2009. [Online]. Available: [http://dx.doi.org/10.1007/978-3-540-88264-0\\_11](http://dx.doi.org/10.1007/978-3-540-88264-0_11).
- Peng Yue, Jianya Gong, Liping Di, Lianlian He, and **Yaxing Wei**, Integrating semantic web technologies and geospatial catalog services for geospatial information discovery and processing in cyberinfrastructure. Geoinformatica, Oct. 2009. [Online]. Available: <http://dx.doi.org/10.1007/s10707-009-0096-1>.
- **Yaxing Wei**, Suresh-Kumar Santhana-Vannan, and Robert B. Cook. Discover, Visualize, and Deliver

Geospatial Data through OGC Standards-based WebGIS System. In Proceeding of the 17th International Conference on Geoinformatics (Geoinformatics 2009), August 12-14, 2009, Fairfax, VA, USA.

- Yuqi Bai, Liping Di, and **Yaxing Wei**. A taxonomy of geospatial services for global service discovery and interoperability. *Computers & Geosciences*, Vol. 35, Issue 4, 2009, p738-790.
- **Yaxing Wei**, Liping Di, Guangxuan Liao, Baohua Zhao, Aijun Chen, and Yuqi Bai. Sharing of Distributed Geospatial Data through Grid Technology. In *Handbook of Research on Geoinformatics* (Hassan A. Karimi eds.), p222-228, ISBN: 978-1-59140-995-3, Information Science Reference, Nov. 2008.
- Weiguo Han, Liping Di, Peisheng Zhao, **Yaxing Wei**, and Xiaoyan Li, Design and Implementation of GeoBrain Online Analysis System (GeOnAS). In *W2GIS 2008: Volume 5373/2008*, 27-36, DOI: 10.1007/978-3-540-89903-7\_4.
- Aijun Chen, Liping Di, Yuqi Bai, and **Yaxing Wei**. GeoSpatial Grid. In *Encyclopedia of GIS* (Shekhar, Shashi; Xiong, Hui eds.), 2008, XL, p1377, ISBN: 978-0-387-35975-5, Springer-Verlag, Berlin, 2008.
- Liping Di, Aijun Chen, Wenli Yang, Yang Liu, **Yaxing Wei**, Piyush Mehrotra, Chaumin Hu, and Dean Williams (2008). The Development of a Geospatial Data Grid by Integrating OGC Web Services with Globus-based Grid Technology. *Journal of Concurrency: Practice and Experience*, Vol. 20, Issue 14, 2008, p1617-1635.
- **Yaxing Wei**, Liping Di, Baohua Zhao, Guangxuan Liao, and Aijun Chen. Transformation of HDF-EOS metadata from the ECS model to ISO 19115-based XML. *Computers & Geosciences*, Vol. 33, 2007, p238-p247.
- **Yaxing Wei**, Peng Yue, Upendra Dadi, Min Min, Chengfang Hu, and Liping Di. Effective Acquisition of Geospatial Data Products in a Collaborative Grid Environment. 2006 IEEE International Conference on Services Computing (SCC2006), September 18-22, 2006, Chicago, USA.
- Yuqi Bai, Liping Di, Aijun Chen, Yang Liu, and **Yaxing Wei**. Towards a Geospatial Catalogue Federation Service. *Photogrammetric Engineering & Remote Sensing*, Vol. 73, No.6, June 2007.
- **Yaxing Wei**, Liping Di, Baohua Zhao, Guangxuan Liao, Aijun Chen, Yuqi Bai, and Yang Liu. The design and implementation of a Grid-enabled catalogue service. *IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2005*, July 25-29, 2005, Seoul, Korea.
- Aijun Chen, Liping Di, **Yaxing Wei**, Yang Liu, Yuqi Bai, Chaumin Hu, and Piyush Mehrotra. Grid-enabled Geospatial Catalogue Web Services. *American Society for Photogrammetry and Remote Sensing 2005*, March 7-11, 2005, Baltimore, USA.
- Beihua Cong, Guangxuan Liao, and **Yaxing Wei**. Application of Computational Simulation in Fire Science and Engineering Research, *Journal of Disaster Prevention and Mitigation Engineering*, vol 2, 2003.
- Xishi Wang, Xiaoping Wu, Guangxuan Liao, and **Yaxing Wei**. Measurements of Full Field Velocity in a Water Mist Based on Digital Particle Image, *Journal of Experimental Mechanics*, vol.18 No.1 Mar. 2003.
- Xishi Wang, Xiaoping Wu, Guangxuan Liao, **Yaxing Wei**, and Jun Qin. Characterization of a Water Mist based on Digital Particle Images, *Experiments in Fluids*, 33(2002), p587-p593.