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EDUCATION

- Ph.D. in Physical Oceanography, 2006, Graduate School of Oceanography, University of Rhode Island, Kingston, USA
- M.S. in Physics (Optics), 1997, Fudan University, Shanghai, China
- A.S. in Electrical Engineering, 1990, Ocean University of China, Qingdao, China

RESEARCH INTERESTS

- Satellite oceanography, ocean dynamics, instrumentation.
- Ocean circulation and its relationship to climatic variability.
- Remote sensing, satellite data calibration/validation.
- Adjoint data construction and sensitivity analysis; climate model bias correction.
- Statistical methods for signal detection, retrieval algorism and data mining.

EXPERIENCE

- Caltech Postdoctoral Scholar, 2009-present, NASA Jet Propulsion Laboratory, California Institute of Technology
- Postdoctoral Research Associate, 2008-2009, University of South Florida
- Postdoctoral Fellow, 2006-2008, University of Texas at Austin
- Ph.D. Candidate, 2001-2006, Graduate School of Oceanography, University of Rhode Island
- Assistant Scientist, 1997-2001, The First Institute of Oceanography, SOA, Qingdao, China.

PENDING PROPOSAL

Pacific Decadal Oscillation and Sea Level Change
(NASA ROSES-PO, NRA NNH11ZDA001N)

PI:	Josh Willis
Co-I/Science PI:	Yongsheng Xu
Co-I:	Wilbert Weijer
Collaborator:	Jorge Vazquez

AWARDS AND GRANT

- Alumni Fellowship, 2006, GSO, University of Rhode Island.
- URI President Travel Award, 2006, University of Rhode Island.
- Young Investigator Initiative Fund, 1999-2001, the State Oceanic Administration of China, 'Development of optical ocean instrument (fluorometer) to measure oil concentration in seawater'.

PUBLICATIONS

Refereed Publications

- **Xu, Y**., L-L. Fu, and R. Tulloch (2011), The global characteristics of wavenumber spectrum of atmospheric mesoscale turbulence, *J. Phys. Oceanogr*. doi: 10.1175/JPO-D-11-059.1 (In Press)

- **Xu, Y**., Z-L.Yang (2011), A method to study the impact of climate change on variability of river flow: an example from the Guadalupe River in Texas, *Climatic Change.* (Accepted)

- **Xu, Y.,** L-L Fu (2011), Global variability of the wavenumber spectrum of oceanic mesoscale turbulence, *J. Phys. Oceanogr*. **41 (4)**, 802-809

- **Xu, Y**., D.R. Watts, and J.H. Park (2008), De-Aliasing of Large-Scale High-Frequency Barotropic Signals from Satellite Altimetry in the Japan/East Sea. *J. Atmos. Oceanic Technol.*, **25**, 1703–1709.

- **Xu, Y**., R. B Scott (2008), Subtleties in forcing eddy resolving ocean models with satellite wind data, *Ocean Modeling*, **20**, 240–251.

- **Xu, Y**., D. R. Watts, M. Wimbush, and J.-H. Park (2007), Fundamental-mode basin oscillations in the Japan/East Sea, Geophys. Res. Lett., **34**, L04605, doi: 10.1029/2006GL028755.

- **Xu, Y**., D. R. Watts, and M. Wimbush (2009), Coupled patterns between fields of dynamic height and bottom pressure in the Japan/East Sea, *Ocean Science Journal*, **44** :35-42, doi:10.1007/s12601-009-0005-4.

- Scott, R. B., **Y. Xu** (2009), An update on the wind power input to the surface geostrophic flow of the World Ocean, *Deep-Sea Res*. I, **50**, 295–304.

- Park, J.-H., D.R. Watts, M. Wimbush, J.W. Book, K.L. Tracey and **Y. Xu** (2006), Rapid variability and its links to mesoscale circulation in the Japan/East Sea: basin oscillations, internal tides, and near-inertial oscillations, *Oceanography*, **19**, 76-85.

- **Xu, Y.,** J.Y. Pan, Y.G. Yu, Z.X. Zhao (2000), The methods for atmospheric water range corrections and their effects on the altimeter data application, *J. Oceanogr. Bohai and Huanghai Seas*., **18**, 90-95. (in Chinese with English abstract)

- **Xu, Y.**, X.Z. Lu, K. Han, J.H. Xu (1998), Effect of chromophore interaction on optical nonlinearity in Langmuir-Blodgett Films, *Acta Optica Sinica*, **18**,1025-1029. (in Chinese with English abstract)

- Lu, X.Z., K. Han, **Y. Xu**, S.H. Ma, W.C Wang (1997), Dipping induced in-plane molecular alignment of LB films, *Mol. Cryst. Liq. Cryst*., **294**, 23-26.

- Lu, X.Z., K. Han, G-P, Zhou, **Y. Xu**, J.H. Xu, Z-M Zang (1997), Flow dichroism in Langmuir-Blodgett multilayers, *Proc. SPIE*, **43**, DOI:10.1117/12.252932.

- **Xu, Y.**, K. Han, J.H., Xu, G.P. Zhou, X.Z. Lu, Studies on Azimuthal Orientation of Hemicyanine Molecules in LB Films (1996), *Acta Physico-Chimica Sinica*, **12**, 836-840. (in Chinese with English abstract)

- Kiu, H, **Y. Xu**, S.H. Ma, W.C Wang, L.G, Luo, X.Z, Lu (1996), Studies on Optical Nolinear Anisotropy in Hemicyanine LB Multilayers, *Acta Physico-Chimica Sinica*, **12**, 589-593. (in Chinese with English abstract)

- Xia, D.Y., Z.X. Wang, L. Bin, S.K. Zhang., H.Y. Xin, **Y. Xu** (1999), Experimental study on fluorimetry for measuring oil in seawater,*Oceanologia et Limnologia Sinica*, **30**, 104-109. (in Chinese with English abstract)

- Xia, D.Y., Z.X. Wang, S.K. Zhang., H.Y. Xin, **Y. Xu** (1998), A development study of a portable instrument for measuring oil in seawater, *J. Oceanogr. Bohai and Huanghai Seas*., **16**, 28-34. (in Chinese with English abstract)

Book Chapter, Monograph and Technical Reports

- **Xu, Y.** (2010), Sea level variability from satellite altimetry and field measurements, *VDM Publishing*, Inc., Saarbrücken, ISBN-10:3639017765.

- **Xu, Y**., J. Li, and S. Dong (2009), Ocean circulation from satellite altimetry: progresses and challenges, in Ocean Circulation and El Nino, edited by John A. Long and David S. Wells, *Nova Science Publishers*, Inc., New York, **ISBN**: 978-1-60692-084-8

- **Xu, Y.**, K.L. Tracey, D.R. Watts, M. Wimbush, and W. Teague (2003), Current Meter Data Report: Ulleung Basin in the Japan / East Sea. GSO Technical Report 2003-02, University of Rhode Island.

- Mitchell, D.A., **Y. Xu**, K.L. Tracy, D.R. Watts, M. Wimbush, (2003), PIES Data Report: Ulleung Basin in the Japan/East Sea. GSO Technical Report 2004-02, University of Rhode Island

PROFESSIONAL PRESENTATIONS

- **Xu, Y.,** L-L Fu (2010), Global variability of the wavenumber spectrum of oceanic mesoscale turbulence, AGU Fall Meeting, San Francisco, CA

- **Xu, Y**., L-L Fu (2010), Satellite observations question the existing theories of oceanic mesoscale turbulenc , Caltech/JPL Research Day

- **Xu, Y.** (2009), Rapid variability in the Japan/East Sea (Invited by Dr. Lee-Lueng Fu at JPL), Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA

- **Xu, Y.,** Robert B Scott **(**2007), A subtlety in forcing eddy resolving ocean models with satellite wind data, AGU Spring meeting, Acapulco, Mexico

- **Xu, Y.,** Robert B Scott (2007), Satellite measurements reveal lower oceanic wind power input, Acapulco, Mexico

- **Xu, Y.,** D.R. Watts, M. Wimbush, J.-H. Park (2006), Basin oscillations in the Japan/East Sea, 2006 Ocean Sciences Meeting, Honolulu, Hawaii

- Xu, Y., D.R. Watts, M. Wimbush, J.-H. Park (2006), Basin mode oscillations in the Japan/East Sea – an example of statistical methods for pattern detection, Signal Processing Seminar, College of Engineering, University of Rhode Island

- **Xu, Y.,** D.R. Watts, J.-H. Park, M. Wimbush (2005), Sea-level variation from satellite altimetry and in situ measurements in the southwestern Japan /East Sea, AGU Fall Meeting, , San Francisco, CA

- **Xu, Y (**2005), Statistical analysis of sea surface height and bottom pressure in the Japan/East Sea, Physical Oceanography Seminar at Scripps Institution of Oceanography, San Diego, CA

FIELD EXPERIENCE

- RV Endeavor, September 2005, Chief Scientist: **H. Thomas Rossby**
  Duty: analysis of velocity, CTD, acoustic measurements; contributed to the data report writing
- RV Endeavor, November 2004, Chief Scientist: **Dave Ullman**
  Duty: CTD team + determination of nutrients and oxygen, analysis of TS fields.

PROFESSIONAL ACTIVITIES

- Reviewer for two proposals submitted to Climate Data Record (CDR) Program of NOAA's National Climatic Data Center.
- Journal Review: *Journal of Atmospheric and Oceanic Technique*, *Water Resources Research*, and *Climatic Change*.
- Section Chairman, Numerical and Laboratory Models and Theory I, 2007 AGU Spring Meeting, Acapulco, Mexico.

- Members: American Geophysical Union, American Meteorological Society.
- Teaching assistant for course 'General Physics', 1995, Fudan University

OUTREACH

- Judge chair of Earth/Space Sciences category, 61st Los Angeles County Science Fair, April 15, 2011.
- Organizer of Ocean Science Element Meeting on 11:00 am Wednesday at NASA Jet Propulsion Laboratory, 2011.
- Organizer of Caltech/JPL Ocean and Cryosphere Seminar, 2010.
- Member of Education Policy Committee of University of Rhode Island, 2005-2006.