

Curriculum Vitae

Xunqiang Yin

1. Basic Information

Full Name: Xunqiang Yin

Nationality: Chinese

Job Title: Physical Oceanographer

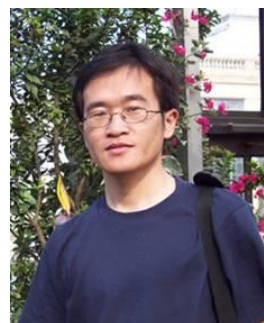
Research Area: ocean dynamics and modeling

Education level: PhD

Affiliation: The First Institute of Oceanography,
Ministry of Natural Resources, China

Address: No.6 Xian-Xia-Ling Road, Qingdao 266061 China

Email: yinxq@fio.org.cn



2. Work and Education Experience

➤ **Education**

- Sep.2008~Jul. 2015: Ph.D. Physical Oceanography, The Ocean University of China, China
- Sep.2002~Jul. 2005: M.S. Physical Oceanography, The First Institute of Oceanography, State Oceanic Administration, China
- Sep.1997~Jul. 2001: B.S. Physical Oceanography, The Ocean University of China, China

➤ **Work Experience**

- Dec. 2011~present: The First Institute of Oceanography, Ministry of Natural Resources, China, Associate Researcher
- Sep. 2006~Dec. 2011: The First Institute of Oceanography, Ministry of Natural Resources, China, Research Assistant
- Jun. 2005~Sep. 2006: Princeton University, USA, Visiting scholar/ Research Assistant
- Jul. 2001~Jun. 2005: The First Institute of Oceanography, Ministry of Natural Resources, China, Research Fellow.

3. Selected Publications

- 1) ZHAO Yiding, YIN Xunqiang, SONG Yajuan, QIAO Fangli. 2019. Seasonal prediction skills of FIO-ESM for North Pacific sea surface temperature and precipitation. *Acta Oceanologica Sinica*, 38(1):5–12
- 2) Zhao Yiding, Yin Xunqiang, Song Yajuan, et al. Effect of wave-induced mixing on sea surface temperature seasonal prediction in the North Pacific in 2016 [J]. *Haiyang Xuebao*, 2019,41(3):52-61, doi: 10.3969/j.issn.0253-4193.2019.03.006(in Chinese)
- 3) Xunqiang Yin, Junqiang Shi, Fangli Qiao. Evaluation on surface current observing network of high frequency ground wave radars in the Gulf of Thailand, *Ocean Dynamics*, 2018, 68:575–587. DOI 10.1007/s10236-018-1149-5
- 4) Shi Junqiang, Yin Xunqiang, Qiao Fangli, et al. Optimizing the spatial ocean observation system based on data assimilation assessment: The Gulf of Thailand as an example [J]. *Haiyang Xuebao*, 2018,40(2):14—29, doi: 10.3969/j.issn.0253-4193.2018.02.002(in Chinese)
- 5) Junqiang Shi, Xunqiang Yin, Qi Shu, et al. Evaluation on data assimilation of a global high resolution wave-tide-circulation coupled model using the tropical Pacific TAO buoy observations. *Acta Oceanologica Sinica*, 2018 37(3): 8–20
- 6) Meng Sun, Yongzeng Yang, Xunqiang Yin, et al. Data assimilation of ocean surface waves using Sentinel-1 SAR during typhoon Malakas. *Int J Appl Earth Obs Geoinformation*, 2018, 70: 35–42
- 7) SUN Meng, YIN Xun-Qiang, YANG Yong-Zeng, WU Ke-Jian, SUN Bao-Nan. On EAKF data assimilation based on MASNUM-WAM- II assimilation experiment and result. *Oceanologia et limnologia sinica*:2017,48:210-220 (in Chinese)
- 8) Meng Sun, Xunqiang Yin, Yongzeng Yang, Kejian Wu, an effective method based on dynamic sampling for data assimilation in a global wave model, *Ocean Dynamic*, 2017, 67:433–449, DOI: 10.1007/s10236-017-1030-y.
- 9) Qiao F, Zhao W, Yin X, et al. A highly effective global surface wave numerical simulation with ultra-high resolution[C] International Conference for High PERFORMANCE Computing, Networking, Storage and Analysis. IEEE Press, 2016:5.
- 10) Sun Meng, Yin Xunqiang, Yang Yongzeng, Wu Kejian, ON ENKF DATA ASSIMILATION BASED ON MASNUM-WAM I. INFLUENCE ON WAVE SIMULATION OF ENSEMBLE-DISTURBANCE WIND FIELD. *OCEANOLOGIA ET LIMNOLOGIA SINICA*. 2016,47(6): 1091-1100(in Chinese)
- 11) Chen Hui, Yin Xunqiang, Bao Ying, Qiao Fangli, Ocean satellite data assimilation experiments in FIO-ESM using ensemble adjustment Kalman filter. *Science China: Earth Sciences*, 2015:1-11. doi: 10.1007/s11430-015-5187-2;
- 12) Zhenya Song, Qi Shu, Ying Bao, Xunqiang Yin, Fangli Qiao. The prediction on the 2015/16 El

- Niño event from the perspective of FIO-ESM[J]. *Acta Oceanologica Sinica*, 2015, 34(12): 67-71.
- 13) Chen Hui, Yin Xunqiang, Song Zhenya, et al. The impacts of ocean data assimilation on tropical precipitation bias in a climate model [J]. *HaiyangXuebao*, 2015, 37(7): 41—53, doi: 10.3969(in Chinese)
 - 14) Zhao Wei, Song Zhenya, Qiao Fangli, Yin Xunqiang. High efficient parallel numerical surface wavemodel based on an irregular quasi-rectangular domain decomposition scheme. *Science China: Earth Sciences*, 57(8): 1869-1878, doi: 10.1007/s11430-014-4842-3;
 - 15) Meng S, Xun-Qiang Y, Yong-Zeng Y. Construction and application in global wave data assimilation of static sample set[J]. *Oceanologia et Limnologia Sinica*, 2014,45(5):918-927(in Chinese)
 - 16) Yuan Yeli, Qiao Fangli, Yin Xunqiang, Han Lei, Analytical estimation of mixing coefficient induced by surface wave-generated turbulence based on the equilibrium solution of the second-order turbulence closure model, *Science China (SCI)*, 2013, 56(1): 71-80, doi: 10.1007/s11430-012-4517-x (Corresponding author)
 - 17) Qi Shu, Fangli Qiao, Zhenya Song, Xunqiang Yin, A comparison of two global ocean-ice coupled models with different horizontal resolutions, *Acta Oceanol. Sin.* (SCI), 2013, Vol. 32, No. 8, P. 1-11, DOI: 10.1007/s13131-013-0335-z
 - 18) Shen Huajie, Yin Xuqiang, Jiang Xingjie, Sun Meng, Yang Yongzeng, Wang Yihang, Design of the nested wave model for nearshore irregular region and its application. *Journal of applied oceanography*. 2013, 32(3): 168-178 (in Chinese)
 - 19) Yuan Y L, Qiao F L, Yin X Q, et al. Analytical estimation of mixing coefficient induced by surface wave-generated turbulence based on the equilibrium solution of the second-order turbulence closure model. *Science China: Earth Sciences*, 2013, 43 (2) : 171-180 (in Chinese)
 - 20) Yin Xunqiang, Qiao Fangli, Yang Yongzeng, Xia Changshui, Chen Xianyao, Argo data assimilation in ocean general circulation model of Northwest Pacific Ocean. *Ocean Dynamics (SCI)* . 2012, 62(7): 1059-1071. DOI 10.1007/s10236-012-0549-1
 - 21) Yuan Yeli, Qiao Fangli, Yin Xunqiang, Han Lei, Lu Ming, Establishment of the ocean dynamic system with four sub-systems and the derivation of their governing equation sets. *Journal of Hydrodynamics (SCI)* , 2012, 24 (2) : 153-168 (Corresponding author)
 - 22) Yin Xunqiang, Qiao Fangli, Shu Qi. Using Ensemble Adjustment Kalman Filter to Assimilate Argo Profiles in a Global OGCM. *Ocean Dynamics (SCI)* , 2011, 61(7): 1017-1031. DOI: 10.1007/s10236-011-0419-2.
 - 23) Yin Xunqiang, Qiao Fangli, Xia Changshui, LÜ Xingang, Yang Yongzeng: Reconstruction of eddies by assimilating satellite altimeter data into Princeton Ocean Model, *Acta Oceanologica Sinica (SCI)* , 2010, 29(1): 1-11.

- 24) Yin Xunqiang, Qiao Fangli, Yang Yongzeng, Xia Changshui. Ensemble adjustment Kalman filter study for Argo data, *Chinese Journal of Oceanology and Limnology* (SCIE) , 2010, 28(3): 625-635.
- 25) Yin Xun-qiang, Qiao Fang-Li, Xia Chang-Shui, Yang Yong-Zeng Wang Guan-suo. Comparative study on results respectively from numerical prediction and argo temperature-observation in Aden Gulf. *Advances in Marine Science*, 2010, 28(4) (in Chinese)
- 26) Qiao Fangli, Zhang Shaoqing, Yin Xunqiang. Study of initial vorticity forcing for block onset by a 4-dimensional variational approach[J]. *Advances in Atmospheric Sciences* (SCI) , 2005, 22(2): 246-259.
- 27) Yin Xunqiang, Oey Lie-Yauw, Bred-Ensemble Ocean Forecast during Katrina: Loop Current and Ring. *Ocean Modelling* (SCI) , 2007, 17(4): 300-326.
- 28) Yin Xunqiang, Qiao Fangli, Yang Yongzeng. An improvement to steepest descent algorithm in variational data assimilation study. *Advances in Marine Science*. 2003, 21(4) (in Chinese)
- 29) Yin Xunqiang, Yang Yongzeng, Qiao Fangli, Study on variational data assimilation aaj oint code technique for shallow water tide wave model. *Advances in Marine Science*. 2003, 21(4): 413-423 (in Chinese)

5. Awards

- 1) 2016, ACM Gordon Bell prize finalist, *A highly effective global surface wave numerical simulation with ultra-high resolution*
- 2) 2016, Second Prize of Marine Engineering Science and Technology Award, *Development and application of an efficient parallel set adaptive Kalman filter assimilation system for ocean models*
- 3) 2015, First Prize of Marine Engineering Science and Technology Award, *Construction and application of new global climate numerical models including ocean waves*
- 4) 2008, Best oral Presentation on “Ensemble adjustment Kalman filter study for Argo data” at the CCCC/POC Topic Session in PICES 17th Annual Meeting, North Pacific Marine Science Organization.
- 5) 2007, Excellent Dissertation in Shandong Province, *Global ocean circulation satellite altimeter data assimilation research and its result analysis*

6. Patents

- 1) Qiao Fangli, Zhao Wei, Yin Xunqiang, Song Zhenya, *Collaborative programming framework for parallel computing based on new Sunway Processors*, ZL 2016 1 0439755. 0, 2018
- 2) Qiao Fangli, Deng Jia, Yin Xunqiang, Ma Hongyu, Dai Dejun, Song Zhenya, *Analyzing method for nonlinear interactions of wave and turbulence*, ZL 2016 1 0346744.8, 2017