

Full Publication List

Refereed book chapter:

1. **Gan, J.***, J. Hu and Z. Liu (2020). Ocean processes and responses under the climate changing in China Seas (in Chinese). *The first scientific assessment of ocean and climate change*, Ocean Press, Beijing.
2. **Gan, J.***, Z. Liu, Rex Hui, Y. Tang, Z. Cai and J. Li (2020). The Changing Circulation of Asia-Pacific Marginal Seas in the South China Sea: a Physical View *The Changing Asia-Pacific Marginal Seas*, ed. by Arthur Chen and Xinyu Guo. Springer.
3. Lin, P. **J. Gan** and J. Hu* (2020). Coastal upwelling in the northern South China Sea. *Regional Oceanography of the South China Sea*, pp 289-321. ed. by Hu et al. , World Scientific. <https://doi.org/10.1142/97898112069170011>
4. Dai, M.*, **J. Gan**, A. Han, H. S. Kung and Z. Yin (2012). Physical Dynamics and Biogeochemistry of the Pearl River Plume. *Biogeochemical Dynamics at Large River-Coastal Interfaces: Linkages with Global Climate Change*. Edited by Thomas Bianchi, Mead Allison, and Wei-Jun Cai.

Peer-reviewed paper:

2022

110. Lai, W. and **J. Gan***, 2022. Impacts of high-resolution atmospheric forcing and air-sea coupling on coastal ocean circulation off the Pearl River Estuary. *Estuarine, Coastal and Shelf Science*, YECSS-D-22-00113.
109. Li, J. and **J. Gan*** (2022). Characteristics and formation of the Luzon undercurrent in the western north Pacific: observational study. *J. Geophys. Res. (Oceans)*, 10.1029/2022JC018968.
108. Deng, Y., Z. Liu*, T. Zu, J. Hu, **J. Gan**, Y. Lin, Z. Li, Q. Quan, Z. Cai* (2022). Climatic Controls on the Interannual Variability of Shelf Circulation in the Northern South China Sea. *J. Geophys. Res. (Oceans)*, doi: 10.1029/2022JC018419.
107. Li, J. and **J. Gan*** (2022). On the North equatorial current spatiotemporal modes and responses in the western boundary currents. *Progress in Oceanogr.*, [://doi.org/10.1016/j.pocean.2022.102820](https://doi.org/10.1016/j.pocean.2022.102820).
106. **Gan, J***, H. Kung, Z. Cai, Z. Liu, C. Hui, J. Li (2022). Hotspots of the Stokes rotating circulation in a large marginal sea. *Nature Communications*, 13, 2223. <https://doi.org/10.1038/s41467-022-29610-z>.
105. Dai, M*., J. Su, Y. Zhao, E. E. Hofmann, Z. Cao, W, Cai, **J. Gan**, F. Lacroix, G. G. Laruelle, F. Meng, J. Miller, P.A.G. Regnier, G. Wang, and Z. Wang (2022). Carbon Fluxes in the Coastal Ocean: Synthesis, Boundary Processes and Future Trends. *Annual Review of Earth and Planetary Sciences*. <https://doi.org/10.1146/annurev-earth-032320-090746>
104. Lu, Z, L. Yu and **J Gan*** (2022). External and internal forcings for hypoxia formation in an urban harbour in Hong Kong. *Front. Mar. Sci.* 9:858715. doi: 10.3389/fmars.2022.858715.
103. Yu, L. and **J. Gan*** (2022). Reversing impact of phytoplankton phosphorus limitation on coastal hypoxia due to interacting changes in surface production and shoreward bottom oxygen influx. *Water Research*, doi: <https://doi.org/10.1016/j.watres.2022.118094>
102. Zhang, Y., X. Wang, X. Wang, R. Zhang, Y. Li, **J. Gan** (2022). IOD, ENSO, and seasonal

precipitation variation over Eastern China. *Atmospheric Research*, 106042, ATMOS106042, S0169, 8095(22)00028

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- 101.** Han, A., **J. Gan***, M. Dai, Z. Lu L. Liang and X. Zhao (2021). Intensification of downslope nutrient transport and associated biological responses over the northeastern South China Sea during wind-driven downwelling: a modeling study. *Front. Mar. Sci.*, 8:772586. doi: 10.3389/fmars.2021.772586.
- 100.** Cai*, Z., G. Liu, Z. Liu, **J. Gan** (2021). Three dimensional seasonal and intra-tidal variabilities of water exchange in the Pearl River Estuary. *Estuarine, Coastal and Shelf Science*, 265, (2022), 107730.
- 99.** Liu, Ye*, J. Xie, Z. Liu, **J. Gan** and J. Zhu (2021). The assimilation of temperature and salinity profile observations for forecasting the river-estuary-shelf waters *J. Geophys. Res. (Oceans)*, 2020JC017043
- 98.** Lee, J., J. T. Liu*, I. H. Lee, K. H. Fu, R. J. Yang, W. Gong and **J. Gan** (2021). Encountering shoaling internal waves on the dispersal pathway of the pearl river plume in summer. *Scientific Reports* (2021) 11:999, <https://doi.org/10.1038/s41598-020-80215-2>.
- 97.** Zhao, F., **J. Gan**, K. Xu* (2021). The study of shallow water flow with bottom topography by high-order compact gas-kinetic scheme on unstructured mesh. *Physics of Fluids*, POF21-AR-FMW2021-02762R.
- 96.** Chen, F., X. P. Koh, M. L. Y. Tang, **J. Gan**, S. C.K. Lau* (2021). Microbiological assessment of ecological status in the Pearl River Estuary, China *Ecological Indicators* 130 (2021) 108084.
- 95.** Xu, Z., Y. Wang, Z. Liu , J. C. McWilliams, and **J. Gan*** (2021). Insight into the dynamics of the radiating internal tide associated with the Kuroshio Current. *J. Geophys. Res. (Oceans)*, 126, e2020JC017018. <https://doi.org/10.1029/2020JC017018>.
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- 93.** Liu, Z.* , **J. Gan**, J. Hu, H. Wu, Z. Cai and Y. Deng (2021). Progress on circulation dynamics in the East China Sea and southern Yellow Sea: Origination, pathways, and destinations of shelf currents, *Progress in Oceanography*, doi: <https://doi.org/10.1016/j.pocean.2021.102553>.
- 92.** Yu, L. and **J. Gan*** (2021). Mitigation of eutrophication and hypoxia through oyster aquaculture: an ecosystem model evaluation off the Pearl River Estuary. *Environmental Science and Technology*, es-2020-06616q (in press).
- 91.** Cai, Z. and **J. Gan*** (2021). Dynamics of the layered circulation inferred from kinetic energy pathway in the South China Sea. *J. Phys. Oceanogr.*, 51(5), 1671-1685. 15p. doi: 10.1175/JPO-D-20-0226.1.
- 90.** Liu, Z.* , **J. Gan**, J. Hu, H. Wu, Z. Cai, Y. Deng (2021). Progress of studies on circulation dynamics in the East China Sea: the Kuroshio exchanges with the shelf currents. *Frontiers in Marine Science, section Coastal Ocean Processes*, <https://doi.org/10.3389/fmars.2021.620910>.
- 89.** Liu, Z.* , **J. Gan**, H. Wu, J. Hu, Z. Cai, Y. Deng (2021). Advances on Coastal and Estuar-

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87. Lai, W., **J. Gan***, Y. Liu, Z. Liu, J. Xie, J. Zhu (2020). Assimilating in situ and remote sensing observations in a highly variable estuary-shelf model, *J. Atmos. and Oce. Tech.*, v. 38(3), (2020),doi: 10.1175/JTECH-D-20-0084.1

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78. Li, D., **J. Gan***, Rex Hui, Z. Liu, L. Yu, Z. Lu, M. Dai (2020). Vortex and biogeochemical dynamics for hypoxia formation in the coastal transition zone off the Pearl River Estuary. *J. Geophys. Res. (Oceans)*, 125(8), e2020JC016178,doi: 10.1029/2020JC016178.

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72. Lu, Z., **J. Gan***, M. Dai, X. Zhao, C. R. Hui (2020). Nutrient transport and dynamics in the South China Sea. A modeling study. *Progress in Oceanography*, 183,102308,doi: 10.1016/j.pocean.2020.102308.
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