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EDUCATION

2006/Sep - 2010/Jun	Ph.D., Dept. of Earth Sci., National Taiwan Normal Univ., Taiwan
2003/Sep - 2006/Jun	M.S., Dept. of Earth Sci., National Taiwan Normal Univ., Taiwan
1999/Sep - 2003/Jun	B.E., Dept. of Sci. Education, Taipei Municipal Teachers Coll., Taiwan

EMPLOYMENT

2022/Aug - present	*Postdoctoral Research Fellow*, RCEC, Academia Sinica, Taiwan
2010/Oct - 2012/Feb	*Visiting Postdoctoral Research Fellow*, International Pacific Research Center - School Ocean and Earth Sci. and Technology (IPRC-SOEST), Univ. of Hawaii, USA
2010/Aug - 2022/Jul	*Postdoctoral Research Fellow*, Dept. of Earth Sci., National Taiwan Normal Univ., Taiwan

HONORS & AWARDS

2018 Ministry of Science and Technology (MOST) Postdoctoral Research Fellow Academic Publication Award

2007 National Taiwan Normal Univ. (NTNU) Coll. of Science Graduate Student Participation in Academic Activities Award

RESEARCH INTEREST

Physical Oceanography, Numerical Ocean Modeling, Satellite Data Analysis

RESEARCH HIGHLIGHTS

Multidecadal changes of upper-ocean thermal conditions in the tropical Northwest Pacific Ocean versus South China Sea during 1960-2015: The analysis reveals that a transition of a 30-yr trend took place in 1980s during the analyzed period for both the surface and subsurface environment. Generally, the warming trend of sea surface temperature (SST) in the TNWP has a similar multidecadal change to that in the SCS. However, a huge accumulating rate of upper-ocean heat content above 26°C isotherm (UOHC26) showed up in the TNWP (about 3 times compared to

that in the SCS) in the last 30 years. In the TNWP, the southward shift of the North Equatorial Current on the multidecadal timescale induces the vertical displacement of isotherms leading to a strong subsurface warming around the top of thermocline. Secondarily, the PDO (Pacific Decadal Oscillation) -related SST regulates the thermal structure in the mixed layer. The multidecadal UOHC26 in the SCS is mainly attributed to the PDO-related SST and further modulated by the isothermal variability caused by the change of basin-scale SCS circulation. *[Chiang et al. (2018, JC)]*

Activities of subthermocline eddies in the western equatorial Pacific: Analyses of outputs from an eddy-resolving ocean general circulation model show that there are at least two groups of subthermocline eddies near the Philippine coast: one originates from the southeast, and the other from the east. The dominant period and principal depth of the former (latter) group of eddies are about 55 days (67 days) and 600 m (350 m), respectively. The propagation speed (~0.12 m s^{-1}) and diameter (~3°) of the two groups of eddies are similar. The former propagating eddies originate from the equatorial South Pacific (west of Ninigo Group), propagate northward along the New Guinea coast, cross the equator in the far western Pacific, and reach the Mindanao coast. These eddies are generated by interactions among the New Guinea Coastal Undercurrent (NGCUC), westward-flowing Lower Equatorial Intermediate Current (LEIC), and complex bottom topography associated with the Ninigo Group. The latter propagating eddies originate near 137°E, 10.5°N and propagate westward. There eddies are generated by interactions between meridional movement of the westward-flowing North Equatorial Current, the eastward-flowing North Equatorial Undercurrent, and their interactions with topography. Besides, the analysis indicates that, in comparison with the northwestward propagating subthermocline eddies, the westward propagating ones play a more important role in modulating the subsurface circulation near the Philippine coast. *[Chiang and Qu (2013; JPO); Chiang et al., (2015; JGR-Oceans)]*

REPRESENTATIVE PUBLICATIONS (*: corresponding author)

Chiang, T.-L., Y.-C. Hsin, and C.-R. Wu (2018): Multidecadal changes of upper-ocean thermal conditions in the tropical Northwest Pacific Ocean versus South China Sea during 1960-2015, *Journal of Climate*, 31(10), 3999-4016, doi:10.1175/JCLI-D-17-0394.1.

Chiang, T.-L.*, C.-R. Wu, T. Qu, and Y.-C. Hsin (2015): Activities of 50-80 day subthermocline eddies near the Philippine coast. *Journal of Geophysical Research: Oceans*, 120(5), 3606-3623, doi:10.1002/2013JC009626.

Chiang, T.-L. and T. Qu (2013): Subthermocline eddies in the western equatorial Pacific as shown by an eddy-resolving OGCM, *Journal of Physical Oceanography*, 43(7), 1241-1253, doi:10.1175/JPO-D-12-0187.1.

Qu, T., **T.-L. Chiang**, C.-R. Wu, P. Dutrieux, and D. Hu (2012): Mindanao Current/Undercurrent in an eddy-resolving GCM. *Journal of Geophysical Research*, 117(C6), C06026, doi:10.1029/2011JC007838.

Hsin, Y.-C., **T.-L. Chiang**, and C.-R. Wu (2011): Fluctuations of the thermal front off northeastern Taiwan, *Journal of Geophysical Research*, 116(C10), C10005, doi:10.1029/2011JC007066.

Chiang, T.-L., C.-R. Wu, and L.-Y. Oey (2011): Kai-Tak: An ocean's perfect storm. *Journal of Physical Oceanography*, 41(1), 221-233, doi:10.1175/2010JPO4518.1.

Chiang, T.-L., C.-R. Wu, and S.-Y. Chao (2008): Physical and geographical origins of the South China Sea Warm Current. *Journal of Geophysical Research*, 113, C08028, doi:10.1029/2008JC004794.

Wu, C.-R. and **T.-L. Chiang** (2007): Mesoscale eddies in the northern South China Sea. *Deep Sea Research II*, 54(14-15), 1575-1588, doi:10.1016/j.dsr2.2007.05.008.