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PROFESSIONAL EXPERIENCE

- Jet Propulsion Laboratory
 - Supervisor, Oceans and Ice Group (2011-present)
 - Project Scientist, Physical Oceanography Distributed Active Archive Centre (2008-present)
 - Principal Scientist (2006-present)
 - Research Scientist (1999-2006)
 - Scientist (1996-1999)
- Massachusetts Institute of Technology
 - Postdoctoral Research Associate (1994-1996)

EDUCATION

- Ph.D. in Oceanography, 1994, University of Rhode Island, Kingston, RI.
- M.S. in Marine Studies, 1989, University of Delaware, Newark, DE.
- B.S. in Mechanics, 1984, Sun Yat-Sen University, Guangzhou, P.R. China.

RESEARCH INTEREST AND EXPERTISE

- Ocean circulation and its relation to climate variability on seasonal-to-decadal time scales (in particular, upper-ocean heat balance; meridional circulation and heat transport; inter-basin linkages; tropical-extratropical connections).
- Data assimilation using ocean & coupled ocean-atmosphere models.
- Adjoint model construction and sensitivity analysis.

PROFESSIONAL SERVICES AND AFFILIATIONS

- International CLIVAR Global Synthesis & Observations Panel member (2011~) and co-chair (2012~).
- Co-chair of US CLIVAR POS Panel (2010-2011).
- International CLIVAR and IOC/GOOS Indian Ocean Panel member (2006-2012).
- International GODAE Steering Team member (2003-2008).
- International GODAE-OceanView Science Team member (since 2009).
- US AMOC Program Executive Committee and task team leader (2007-2010).
- US Argo Program panel member (2004-2009).
- NASA Ocean Vector Wind Science Team member (since 2006).
- Member of American Geophysical Union.
- Member of American Meteorological Society.

SELECTED AWARDS

- 2011 JPL Mariner Award for extraordinary scientific productivity
- 2010 NASA Exceptional Achievement Medal
- 2009 NASA Group Achievement Award: PO.DAAC Team

SELECTED PEER-REVIEWED PUBLICATIONS

Halkides, D.J., L. E. Lucas, D. E. Waliser, **T. Lee**, and R. Murtugudde, 2011: Mechanisms controlling mixed-layer temperature variability in the eastern tropical Pacific on the intraseasonal timescale. *Geophys. Res. Lett.*, 38, L17602, doi:10.1029/2011GL048545.

McPhaden, M., **T. Lee**, and D. McClurg, 2011: El Niño and its Relationship to Changing Background Conditions in the Tropical Pacific. *Geophys. Res. Lett.*, 38, L15709, doi:10.1029/2011GL048275.

Halkides, D., and **T. Lee**, 2011: Mechanisms controlling seasonal mixed layer temperature and salinity in the southwestern tropical Indian Ocean. *Dyn. Ocean. Atmos.*, 51, 77-93, DOI:10.1016/j.dynatmoce.2011.03.002.

Halkides, D., **T. Lee**, and S. Kida, 2011: Mechanisms controlling seasonal mixed layer temperature and salinity of the Indonesian Seas. *Ocean Dyn.*, vol.6, issue 4, 481, DOI 10.1007/s10236-010-0374-3.

Boening, C., **T. Lee**, and V. Zlotnicki, 2011: A record-high ocean bottom pressure in the South Pacific observed by GRACE. *Geophys. Res. Lett.*, 38, L04602, doi:10.1029/2010GL046013.

Yu, J.-Y., H.-Y. Kao, **T. Lee**, and S.T. Kim, 2011: Subsurface Ocean Temperature Indices for Central-Pacific and Eastern-Pacific Types of El Niño and La Niña Events. *Theoretical And Applied Clim.*, vol. 103, issues 3-4, 337-344. DOI 10.1007/s00704-010-0307-6.

Lee, T., B. Qiu, S. Hakkinen, et al., 2010: Satellite observations of ocean circulation changes associated with climate variability. *TOS, Oceanography*. Vol.23, No.4, 70-81.

Lee, T., W. Hobbs, and J. Willis, et al., 2010: Record warming in the South Pacific and western Antarctica associated with the strong central-Pacific El Niño in 2009-10. *Geophys. Res. Lett.*, 37, L19704, doi:10.1029/2010GL044865.

Lee, T., and M. McPhaden, 2010: Increasing intensity of El Nino in the central-equatorial Pacific. *Geophys. Res. Lett.*, L14603, doi:10.1029/2010GL044007.

Lee, T., T. Awaji, M. Balmaseda, et al. 2010: Consistency and fidelity of Indonesian-throughflow total volume transport estimated by 14 ocean data assimilation products. *Dyn. Atmos. Oceans*. doi:10.1016/j.dynatmoce.2009.12.004.

Volkov, D., L.-L. Fu, and **T. Lee**, 2010: Mechanisms of the meridional heat transport in the Southern Ocean. *Ocean Dyn.*, 60, 791-801, DOI: 10.1007/s10236-010-0288-0.

Feng, M., M.J. McPhaden, and **T. Lee**, 2010: Decadal variability of the Pacific subtropical cells and their influence on the southeast Indian Ocean. *Geophys. Res. Lett.*, L09606. DOI: 10.1029/2010GL042796.

Yu, J.-Y., H.-Y. Kao, and **T. Lee**, 2010: Subtropics-Related Interannual Sea Surface Temperature Variability in the Central Equatorial Pacific. *J. Clim.*, 23, 2869-2884.

Lee, T., T. Awaji, M. Balmaseda, E. Greiner, and D. Stammer, 2009: Ocean state estimation for climate research, *TOS, Oceanography*, 22, 160-167.

Halkides, D., and **T. Lee**, 2009: Mechanisms controlling seasonal-to-interannual mixed-layer temperature variability in the southeastern tropical Indian Ocean. *J. Geophys. Res.*, 114, C02012, doi:10.1029/2008JC004949.

McPhaden, M.J., G.R. Foltz, and **T. Lee**, et al., 2009: Ocean-atmosphere interaction during Cyclone Nargis. *Eos Trans. American Geophys. Union*, vol. 90, No. 7, 17 February 2009.

Lee, T., and M. J. McPhaden, 2008: Decadal phase change in large-scale sea level and winds in the Indo-Pacific region at the end of the 20th century. *Geophys. Res. Lett.*, 35, L01605, doi:10.1029/2007GL032419.

Lee, T., O. Wang, W.-Q. Tang, and W.T. Liu, 2008: Wind stress measurements from the QuikSCAT-SeaWinds scatterometer tandem mission and the impact on an ocean model. *J. Geophys. Res.*, 113, C12019, doi:10.1029/2008JC004855.

Volkov, D. L., **T. Lee**, and L.-L. Fu, 2008: Eddy-induced meridional heat transport in the ocean, *Geophys. Res. Lett.*, doi:10.1029/2008GL035490.

Cabanes, C., **T. Lee**, and L.-L. Fu, 2008: Mechanisms of interannual variations of the meridional overturning circulation of the North Atlantic Ocean. *J. Phy. Oceanogr.*, 38, 467-480.

Kim, S.-B., **T. Lee**, I. Fukumori, 2007: Mechanisms controlling the interannual variation of mixed layer temperature averaged over the NINO3 region. *J. Clim.*, 20, 3822-3843.

Halkides, D. J., W. Han, **T. Lee**, and Y. Masumoto, 2007: Effects of sub-seasonal variability on seasonal-to-interannual Indian Ocean meridional heat transport, *Geophys. Res. Lett.*, 34, L12605, doi:10.1029/2007GL030150.

Fukumori, I., D. Menemenlis, **T. Lee**, 2007: A near-uniform basin-wide sea level fluctuation of the Mediterranean Sea. *J. Phys. Oceanogr.*, 37, 338-358.

Kim, S.-B., I. Fukumori, **T. Lee**, 2006: The closure of the ocean mixed layer temperature budget using level-coordinate model fields. *J. Ocean. Atmos. Tech.*, 23, 840-853.

Lee, T., and W. T. Liu, 2005: Effects of high-frequency wind sampling on simulated mixed-layer depth and upper-ocean temperature. *J. Geophys. Res.*, 110, C05002, doi: 10.1029/2004JC002746.

Menemenlis, D., I. Fukumori, and **T. Lee**, 2005: Using Green's functions to calibrate an ocean general circulation model. *Mon. Weather. Rev.*, 133, 1224-1240.

Kim, S.-B., **T. Lee**, and I. Fukumori, 2004: The 1997-99 abrupt change of the upper ocean temperature in the northcentral Pacific. *Geophys. Res. Lett.*, 31, L22304, doi:10.1029/2004GL021142.

Lee, T., 2004: Decadal weakening of the shallow overturning circulation in the South Indian Ocean. *Geophys. Res. Lett.*, 31, L18305, doi:10.1029/2004GL020884.

Lee, T., I. Fukumori, and B. Tang, 2004: Temperature advection: internal versus external processes. *J. Phys. Oceanogr.*, 34, 1936-1944.

Wang, O., I. Fukumori, **T. Lee**, and B. Cheng, 2004: On the cause of eastern equatorial Pacific Ocean T-S variations associated with El Nino. . *Geophys. Res. Lett.*, 31, L15310, doi:10.1029/2004GL02472.

Fukumori, I., **T. Lee**, B. Cheng, and D. Menemenlis, 2004: The origin, pathway, and destination of NINO3 water estimated by a simulated passive tracer and its adjoint. *J. Phys. Oceanogr.*, 34, 582-604.

Wang, O., I. Fukumori, **T. Lee**, and G. Johnson, 2004: Eastern equatorial Pacific Ocean T-S variations with El Nino. *Geophys. Res. Lett.*, 31, L04305. doi:10.1029/2003GL019087.

Lee, T., and I. Fukumori, 2003: Interannual to decadal variation of tropical-subtropical exchange in the Pacific Ocean: boundary versus interior pycnocline transports. *J. Climate*, 16, 4022-4042.

Lee, T., I. Fukumori, D. Menemenlis, Z. Xing, and L.-L. Fu, 2002: Effects of the Indonesian Throughflow on the Pacific and Indian Ocean. *J. Phys. Oceanogr.*, 32, 1404-1429.

Lee, T., J.-P. Boulanger, A. Foo, L.-L. Fu, and R. Giering, 2000: Data assimilation by an intermediate coupled ocean-atmosphere model: application to the 1997-1998 El Nino. *J. Geophys. Res.*, 105, 26063-26087.

Marotzke, J., R. Giering, K. Zhang, D. Stammer, C. Hill, and **T. Lee**, 1999: Construction of the adjoint MIT ocean general circulation model and application to Atlantic heat transport sensitivity. *J. Geophys. Res.*, 104, 29529-547.

Lee, T. and J. Marotzke, 1998: Seasonal cycle of meridional overturning and heat transport of the Indian Ocean. *J. Phys. Oceanogr.*, vol. 28, 923-943.

Lee, T. and J. Marotzke, 1997: Inferring meridional mass and heat transports of the Indian Ocean by fitting a GCM to climatological data. *J. Geophys. Res.*, vol. 102, 10585-10602.

Lee, T. and P. Cornillon, 1996: Propagation of Gulf Stream meanders between 74 and 70W. *J. Phys. Oceanogr.*, vol. 26, 205-224.

Lee, T. and P. Cornillon, 1996: Propagation and growth of Gulf Stream meanders between 75 and 45W. *J. Phys. Oceanogr.*, vol. 26, 225-241.

Lee, T. and P. Cornillon, 1995: Temporal variation of meandering intensity and domain-wide lateral oscillations of the Gulf Stream. *J. Geophys. Res.*, vol. 100, 13603-13613.

Cornillon, P., **T. Lee**, and G. Fall, 1994: On the probability that a Gulf Stream meander crest detaches to form a warm core ring. *J. Phys. Oceanogr.*, vol. 96, 132-155.