

LIANYUAN ZHENG'S CURRICULUM VITAE

NAME: Lianyuan Zheng

PRESENT POSITION: Senior Research Scientist
College of Marine Science
University of South Florida
140 Seventh Avenue South
St. Petersburg, Florida 33701
727-553-1639
lzheng@mail.usf.edu

EDUCATION:

Shandong College of Oceanography, China: B.S. (Applied Mathematics) 1985
Ocean University of Qingdao, China: M.S. (Physical Oceanography) 1988
University of Georgia: M.S. (Marine Sciences) 1999
University of Georgia: Ph.D. (Marine Sciences) 2001

PROFESSIONAL EXPERIENCE:

08/07-present	Senior Research Scientist, College of Marine Science, USF
06/04-08/07	Research Associate, College of Marine Science, USF
09/01-06/04	Post-doctoral Research Associate, College of Marine Science, USF
01/96-09/01	Graduate Research Assistant, University of Georgia
09/89-01/96	Assistant Professor, Environmental Protection Center, Ocean University of Qingdao, China
07/88-09/89	Engineer, Computer Center, Ocean University of Qingdao, China
09/85-07/88	Graduate Research Assistant, Ocean University of Qingdao, China

WORK EXPERIENCE

2001-present:

Developing the 3-D hydrodynamic model of Charlotte Harbor, Florida. In this model study, we use ECOM-si to study how the tides, winds, and river discharges impact on stratification process in this estuary.

Developing the 3-D hydrodynamic model of West Florida Shelf (WFS) using unstructured Finite-Volume Coastal Ocean Model (FVCOM). We use this model to study circulation over the WFS by forcings of tides, rivers, winds, heat fluxes, and deep ocean circulation.

Developing the 3-D storm surge model and application to Tampa Bay and Charlotte Harbor (FVCOM). In the Tampa Bay application, we study how the storm surge responses to hurricane intensities, its movement speeds, landfall locations, and its approaching directions. From mechanical analysis, we

investigate the difference of 2D (depth-averaged) and 3D storm surge models and propose that it is necessary to use 3D, rather than 2D to do storm surge simulation. In the Charlotte Harbor application, we use Hurricane Charley as case study.

Developing high resolution three-dimensional baroclinic circulation model in the Tampa Bay, Florida. In this study, we use FVCOM to study the mechanisms in controlling the estuarine circulation in the Tampa Bay and its inter-coastal waterway and estimate the residence time (or flushing time).

Developing the high resolution 3-D hydrodynamic model of Rookery Bay and Naples Bay, Florida, by using FVCOM. In this study, by using spatial resolution of 20 meter to resolve narrow creeks and canals, we investigate the impacts of freshwater inflow (cfs) from the Henderson Creek and Eagle Creek canals on the salinity patterns in Henderson Creek, Rookery Bay, and Naples Bay.

Maintaining the Nowcast/Forecast west Florida shelf 3-D circulation model by using ROMS (<http://ocgmod1.marine.usf.edu/WFS/>). In this study, we nest our west Florida shelf to global HYCOM model, inputs including meteorological fields predicted from NCEP, river discharges from USGS, SST from multiple satellite remote sensing observations, and tides. The forecasting current fields are used to track the red tides movement.

Developing the 3-D circulation WFS nowcast/forecast system (WFCOM) (http://ocgweb.marine.usf.edu/Models/FVCOM/fvcom_index.html). In this study, we nest our west Florida shelf FVCOM to global HYCOM model, inputs including meteorological fields predicted from NCEP, river discharges from USGS, SST from multiple satellite remote sensing observations, and tides. The N/F model is automatically running daily and the WFCOM was initialized from July 2010.

Developing the extended WFCOM to include the Mississippi River delta. (http://ocgweb.marine.usf.edu/~zheng/research/WFCOM_NF/index.html). The extended WFCOM is automatically running daily and was initialized from November 2014.

Developing a Harmful Algal Bloom (HAB) tracking tool to help federal, state, and local end users monitor and manage the *Karenia brevis*, red tide blooms on the west coast of Florida by providing a 3 day forecasts of the bloom track paths (http://ocgweb.marine.usf.edu/hab_tracking/HAB_trajectories.html). The current fields are based on WFCOM 3D velocity output.

Assisting Dr. Weisberg to supervise two Postdoctorals and one Ph D student.

As the USF primary ocean circulation modeler, I maintained daily forecast of the oil spill trajectory (surface and sub-surface) and provided our forecast surface current to NOAA HAZMAT.

As the USF research team leader, I involved in 3 storm surge projects which are financially supported from Secoora IOOS, Florida State, and NOAA IOOS.

1998-2001:

Developing the three-dimensional ecosystem and water quality model of Georgia Estuaries. In this project, I incorporated wet/dry treatment method into original ECOM-si to simulate flooding/drying process over intertidal salt marshes zone. A 3-D suspended sediment, particle trajectory, and eight components water quality have also been coupled into hydrodynamic model. The water quality model is based on WASP5, which is originally developed by Dr. Ambrose in EPA. This model has been successfully applied to the Satilla River, Georgia.

1996-1998:

Modeling study processes over the inner shelf of Georgia. In this project, I studied the water exchange between inner shelf and mid- and outer shelves over South Atlantic Bight. The model I used is ECOM-si.

1996-1997:

Developing the “Non-orthogonal Coastal Ocean Circulation Model” and its software package coded in FORTRAN.

OCEAN MODELING

I have used the following community ocean models:

FVCOM, ROMS, POM

COMPUTER SKILLS

System software maintenance, new software installation, and system software exploration on Unix and Linux workstations and PC windows NT/XP.

Homepage design and maintenance, making movies using AVS, OPENDX and Imagemagic et al. software.

Computer languages: Fortran (more than 20 year experience), Matlab (more than 10 year experience), Shell Script, C, C++ (5 year experience), HTML et al. Windows Word, Excel, PowerPoint, et al.

HONORS:

James L. Carmon Scholarship Award for my dissertation research involving in an innovative use of computers, University of Georgia, 1999

Elva Rouse 2007 Award by St. Petersburg City Beautiful Commission for my contribution to disseminating our storm surge study to local residents.

Guest Professor, Third Institute of Oceanography, State Oceanic Administration, Xiamen, China, 2008.

REFEREE:

Journal of Geophysical Research
Estuarine, Coastal, and Shelf Science
Ocean Modeling
Ecological Modelling
Journal of Coastal Research
Ocean Dynamics
International Journal of Ecology and Development
Marine Technology Society
NOPP
NOAA-Sea Grant

BIBLIOGRAPHY

REFEREED PUBLICATIONS:

1. **Zheng, L.Y.** (1992). Numerical simulation of three-dimensional tide-induced Lagrangian residual velocity and its application to Bohai Sea. *Journal of Ocean University of Qingdao*, **22(1)**: 39-49. [Chinese version]
2. Wang, H. and **L.Y. Zheng** (1992). A three-dimensional numerical computation of pollutant net displacements. *Journal of Ocean University of Qingdao*, **22(3)**: 1-10. [Chinese version]
3. **Zheng, L.Y.**, Y.L. Sun, and Y.T. Guo (1994). A 3-D model for oil concentration prediction. *Journal of Ocean University of Qingdao*, **24**: 21-26. [Chinese version]
4. **Zheng, L.Y.**, Y.L. Sun, and X.C. Wang (1994). A 3-D prediction model of oil spill. *Journal of Ocean University of Qingdao*, **24**: 6-12. [Chinese version]
5. **Zheng, L.Y.**, H. Tian, and Y.T. Guo (1994). Study of physical self-purification capability in offshore area south of Yantai and Weihai, I: Tidal current model. *Journal of Ocean University of Qingdao*, **24**: 56-62. [Chinese version]
6. Tian, H, **L.Y. Zheng**, and L. Shi (1994). Study of physical self-purification capability in offshore area south of Yantai and Weihai, III: The convection-dispersion model and prediction of COD concentration. *Journal of Ocean University of Qingdao*, **24**: 70-76. [Chinese version]
7. Sun, Y.L., **L.Y. Zheng**, H. Tian, X.C. Wang, and C.Q. Sun (1996). Study on the forecast method of the impact of crossway on tidal current field in sea area. *Chinese Journal of Oceanology and Limnology*, **14**: 343-348.
8. Shi, F.Y. and **L.Y. Zheng** (1996). A BFG model for calculation of tidal current and diffusion of pollutants in near-shore areas. *Acta Oceanologica Sinica*, **15**: 283-296.

9. Wang, L.X., Y.L. Sun, and **L.Y. Zheng** (1998). A three-dimensional prediction method for thermal diffusion. *China Ocean Engineering*, **12**: 309-321.
10. Chen, C.S., **L.Y. Zheng**, and J. Blanton (1999). Physical processes controlling the formation, evolution, and perturbation of the low-salinity front in the inner shelf off the Southeastern U.S.: A modeling study. *Journal of Geophysical Research*. **104**: 1259-1288.
11. Chen, C.S., R.B. Ji, **L.Y. Zheng**, M.Y. Zhu, and M. Rawson (1999). Influences of physical processes on ecosystem in Jiaozhou Bay: A coupled physical and biological model experiment. *Journal of Geophysical Research*, **104**: 29,925-29,949.
12. **Zheng, L.Y.** and C.S. Chen, (2000). A 3D modeling study of the estuarine system: An application to the Satilla River. Proceeding of the 6th international conference on estuarine and coastal modeling, edited by Spaulding, ASCE, 1128-1149, New Orleans, LA.
13. **Zheng, L.Y.**, C.S. Chen, and H.D. Liu (2003). A modeling study of the Satilla River estuary, Georgia. I: flooding-drying process and water exchange over the salt marsh-estuary-shelf complex. *Estuaries*, **26**: 651-669.
14. **Zheng, L.Y.**, C.S. Chen, M. Alber, and H.D. Liu (2003). A modeling study of the Satilla River estuary, Georgia. II: suspended sediment. *Estuaries*, **26**: 670-679.
15. Weisberg, R.H. and **L.Y. Zheng** (2003). How estuaries work: A Charlotte Harbor example. *Journal of Marine Research*, **61**: 635-657.
16. Chen, C.S., J.R. Zhu, **L.Y. Zheng**, E. Ralph, and J.W. Budd (2004). A non-orthogonal primitive equation coastal ocean circulation model: Application to Lake Superior. *Journal of Great Lakes Research*, **30**: 41-54.
17. **Zheng, L.Y.**, C.S. Chen, and F. Zhang (2004). Development of Water Quality Model in the Satilla River Estuary, Georgia. *Ecological Modelling*, **178**: 457-482.
18. **Zheng, L.Y.** and R.H. Weisberg (2004). Tide-, buoyancy-, and wind-driven circulation in the Charlotte Harbor estuary: A model study. *Journal of Geophysical Research*, **109**: C06011, <http://dx.doi.org/10.1029/2003JC001996>.
19. Weisberg, R.H. and **L.Y. Zheng** (2006a). Circulation of Tampa Bay driven by buoyancy, tides, and winds, as simulated using a finite volume coastal ocean model. *Journal of Geophysical Research*, **111**: C01005, <http://dx.doi.org/10.1029/2005JC003067>.
20. Weisberg, R.H. and **L.Y. Zheng** (2006b). A simulation of the hurricane Charley storm surge and its breach of North Captiva Island, *Florida Scientist*, **69**: 152-165.
21. Weisberg, R.H. and **L.Y. Zheng** (2006c). Hurricane Storm Surge Simulations for Tampa Bay. *Estuaries and Coasts*, **29**: 899-913.
22. Weisberg, R.H. and **L.Y. Zheng** (2008). Hurricane storm surge simulations comparing three-dimensional with two-dimensional formulations based on an Ivan-like storm over the Tampa Bay, Florida region. *Journal of Geophysical Research*, **113**: C12001, <http://dx.doi.org/10.1029/2008JC005115>.
23. Weisberg, R.H., A. Barth, A. Alvera-Azcárate, and **L.Y. Zheng** (2009). A Coordinated Coastal Ocean Observing and Modeling System for the West Florida Continental Shelf. *Harmful Algae*, **8**: 585-597, <http://dx.doi.org/10.1016/j.hal.2008.11.003>.

24. **Zheng, L.Y.** and R.H. Weisberg (2010). Rookery Bay and Naples Bay circulation simulations: applications to tides and fresh water inflow regulation. *Ecological Modelling*, **221**: 986-996, <http://dx.doi.org/10.1016/j.ecolmodel.2009.01.24>.
25. Huang, Y., R.H. Weisberg, and **L.Y. Zheng** (2010). Coupling of surge and waves for an Ivan-like hurricane impacting the Tampa Bay, Florida region. *Journal of Geophysical Research*, **115**: <http://dx.doi.org/10.1029/2009JC006090>.
26. **Zheng L.Y.** and R.H. Weisberg (2012). Modeling the west Florida coastal ocean by downscaling from the deep ocean, across the continental shelf and into the estuaries. *Ocean Modeling*, **48**: 10-29, <http://dx.doi.org/10.1016/j.ocemod.2012.02.002>.
27. Huang, Y., R.H. Weisberg, **L.Y. Zheng**, and M. Zijlema (2013). Gulf of Mexico hurricane wave simulations using SWAN: Bulk formula-based coefficient sensitivity for Hurricane Ike. *Journal of Geophysical Research*, **118**: 1-23, <http://dx.doi.org/10.1002/jgrc.20283>.
28. **Zheng L.Y.**, R.H. Weisberg, Y. Huang, R. A. Luettich, J. J. Westerink, P. C. Kerr, A. Donahue, G. Crane, and L. Akli (2013). Implications from the comparisons between two- and three-dimensional model simulations of the Hurricane Ike storm surge. *Journal of Geophysical Research*, **118**: 3350-3369, <http://dx.doi.org/10.1002/jgrc.20248>.
29. Kerr, P.C., A.S. Donahue, J.J. Westerink, R.A. Luettich Jr., **L.Y. Zheng**, R.H. Weisberg, Y. Huang, H.V. Wang, Y. Teng, D.R. Forrest, A. Roland, A.T. Haase, A.W. Kramer, A.A. Taylor, J.R. Rhome, J.C. Feyen, R.P. Signell, J.L. Hanson, M.E. Hope, R.M. Estes, R.A. Dominguez, R.P. Dunbar, L.N. Semeraro, H.J. Westerink, A.B. Kennedy, J.M. Smith, M.D. Powell, V.J. Cardone, and A.T. Cox (2013). U.S. IOOS coastal and ocean modeling testbed: Inter-model evaluation of tides, waves, and hurricane surge in the Gulf of Mexico. *Journal of Geophysical Research*, **118**: 5129-5172, <http://dx.doi.org/10.1002/jgrc.20376>.
30. Weisberg, R.H., **L.Y. Zheng**, Y. Liu, C. Lembke, J.M. Lenes, and J.J. Walsh (2014). Why a red tide was not observed on the West Florida Continental Shelf in 2010. *Harmful Algae*, **38**: 119-126, <http://dx.doi.org/10.1016/j.hal.2014.04.010>.
31. Weisberg, R.H., **L.Y. Zheng**, Y. Liu, S. Murawski, C. Hu, J. Paul (2014). Did Deepwater Horizon hydrocarbons transit to the west Florida continental shelf? *Deep-Sea Research*, <http://dx.doi.org/10.1016/j.dsr2.2014.02.002>.
32. Weisberg, R.H., **L.Y. Zheng**, E. Peebles (2014). Gag Grouper larvae pathways on the west Florida shelf. *Continental Shelf Research*, **88**: 11-23, <http://dx.doi.org/10.1016/j.csr.2014.06.003>.
33. Zhu, J., R.H. Weisberg, **L.Y. Zheng**, S. Han (2014a). Influences of Channel Deepening and Widening on the Tidal and Non-Tidal Circulations of Tampa Bay. *Estuaries and Coasts*, <http://dx.doi.org/10.1007/s12237-014-9815-4>.
34. Zhu, J., R.H. Weisberg, **L.Y. Zheng**, S. Han (2014b). On the Flushing of Tampa Bay. *Estuaries and Coasts*, <http://dx.doi.org/10.1007/s12237-014-9793-6>.
35. Pan, C., **L.Y. Zheng**, R.H. Weisberg, Y. Liu, and C. Lembke (2014) Comparisons of different ensemble schemes for glider data assimilation on West Florida Shelf. *Ocean Modelling*, **81**: 13-24, <http://dx.doi.org/10.1016/j.ocemod.2014.06.005>.
36. Zhu, J., R.H. Weisberg, **L.Y. Zheng**, H. Qi (2015). On the salt balance of Tampa Bay. *Continental Shelf Research*, **107**: 115-131, <http://dx.doi.org/10.1016/j.csr.2015.07.001>.

37. Walsh, J.J., J.M. Lenes, B.P. Darrow, A.A. Parks, R.H. Weisberg, **L.Y. Zheng**, C. Hu, B.B. Barnes, K.L. Daly, S. Shin, G.R. Brooks, W.H. Jeffrey, R.A. Snyder, and D. Hollander (2015). A simulation analysis of the plankton fate of the Deepwater Horizon oil spills. *Continental Shelf Research*, 107: 50-68, <http://dx.doi.org/10.1016/j.csr.2015.07.0002>.
38. Hu, C., B. Murch, A.A. Corcoran, **L.Y. Zheng**, B.B. Barnes. R.H. Weisberg, K. Atwood and J.M. Lenes (2015). Developing a Smart Semantic Web with Linked Data and Models for Near-Real-Time Monitoring of Red Tides in the Eastern Gulf of Mexico. *IEEE Systems Journal*, <http://fx.doi.org/10.1109/JSYST.2015.2440782>.
39. Weisberg, R.H., **L.Y. Zheng**, Y. Liu, A.A. Corcoran, C. Lembke, C. Hu, J.M. Lenes, and J.J. Walsh, (2015). *Karenia brevis* blooms on the West Florida Shelf: A comparative study of the robust 2012 bloom and the nearly null 2013 event. *Continental Shelf Research*, revision submitted.

NON-REFEREED PUBLICATIONS:

1. Rubec, P.J., J. Lewis, D. Reed, C.F. Ashbaugh, C. Lashley, S. Versaggi, R.H. Weisberg, **L.Y. Zheng**, R.Y. He, and C. Jenkins (2005). Refinement of an electronic logbook to support fishing operations by spatially predicting shrimp abundance in relation to environmental conditions off the west coast of Florida. FWC/FWRI file code: F2412-03-05-F.
2. Weisberg, R.H., **L.Y. Zheng**, and R.Y. He (2005). Modeling the west Florida continental shelf in support of shrimp fisheries.
3. Weisberg, R.H. and **L.Y. Zheng** (2007). Estuarine Hydrodynamic Modeling of Rookery Bay.
4. Weisberg, R.H. and **L.Y. Zheng** (2008). Flushing study for Snug Harbor, Tampa Bay.
5. Weisberg, R.H. and **L.Y. Zheng** (2010). Analyses of near bottom temperatures in the vicinity of the Gulfstream Pipeline.
6. **Zheng, L.Y.** and R.H. Weisberg (2014). Water Level, Salinity and Temperature Simulations near Charlotte Harbor from the West Florida Coastal Ocean Model.

CONFERENCE TALKS / SEMINARS:

1. **Zheng, L.Y.**, C.S. Chen, and J. Blanton. A mechanism study of cross-frontal water exchange over the inner shelf of the South Atlantic Bight. 1998 Ocean Science Meeting, San Diego, California.
2. **Zheng, L.Y.**, C.S. Chen, M. Alber, J. Blanton, and C. Alexander. Modeling studies of sediment transport in the Satilla River estuary, Georgia. 2000 Ocean Science Meeting, San Antonio, Texas.
3. Weisberg, R.H. and **L.Y. Zheng**. How estuaries work: A Charlotte Harbor example. Poster. Presented at the Gordon Research Conference on Coastal Ocean Modeling, New London, NH, June, 2003.
4. Weisberg, R.H. and **L.Y. Zheng**. Barotropic and Baroclinic Applications of FVCOM to the WFS for Hurricane Surge Simulations and Estuarine/Shelf Interactions. 84th American Meteorological Society annual meeting January 2004, Seattle, WA.

5. Weisberg, R.H., R.Y. He, and **L.Y. Zheng**. Numerical modeling of the West Florida Shelf circulation with POM, ROMS, and FVCOM: model inter-comparisons gauged against in-situ measurements. Presented at the 7th International Marine Environmental Modeling Seminar (IMEMS 2004), SINTEF, Washington DC, 10/04.
6. **Zheng, L.Y.** and R.H. Weisberg. A preliminary simulation of hurricane Charley storm surge. Presented at Charlotte Harbor Conference “Sound Science in 2003-2004” on 10/05/04 at Mote Marine Laboratory, Sarasota, Florida.
7. Weisberg, R.H., R.Y. He, **L.Y. Zheng**, A. Barth, and A. Azcarate. West Florida Shelf regional modeling. Presented at the GODAE symposium, St. Petersburg, FL., 11/04.
8. **Zheng, L.Y.** and R.H. Weisberg. Continental shelf and estuary interaction. Presented on 12/20/04 at South Florida Water Management District, Naples, Florida.
9. **Zheng, L.Y.** and R.H. Weisberg. A numerical simulation of the hurricane Charley storm surge. Presented at Charlotte Harbor Watershed Summit 2005 on 2/17/05 at Punta Gorda, Florida.
10. **Zheng, L.Y.** and R.H. Weisberg. A numerical simulation of the hurricane Charley storm surge in the light of lessons learned from Tampa Bay. Presented at 19th Governor's Hurricane Conference on 5/13/05 at Tampa, Florida.
11. Weisberg, R.H. and **L.Y. Zheng**. An FVCOM simulation of the Tampa Bay estuary circulation. Presented at the 18th biennial conference of the Estuarine Research Federation, Norfolk VA., 10/19/05.
12. **Zheng, L.Y.** Circulation of Tampa Bay driven by buoyancy, tides, and winds: An application of FVCOM. Presented on 5/05 at College of Environmental and Science Engineering, Ocean University of China, Qingdao, Shandong.
13. **Zheng, L.Y.** Numerical study of water quality in the Satilla River estuary, Georgia. Presented on 5/05 at Institute of Physical Oceanography, Ocean University of China, Qingdao, Shandong.
14. **Zheng, L.Y.** How estuaries work: A Charlotte Harbor example. Presented on 6/05 at East China Normal University, Shanghai.
15. **Zheng, L. Y.** and R. H. Weisberg. Rookery Bay/Henderson Creek 3-D hydrodynamic model. Presented on 3/23/06 at Ten Thousand Island/Henderson Creek Southwest Florida Feasibility Study Workshop at Rookery Bay National Estuarine Research Reserve, Naples, FL.
16. Weisberg, R. H. and **L. Y. Zheng**. Greater Tampa Bay circulation model. Presented on 4/5/06 at Tampa Bay Technical Advisory Committee meeting at Davis Hall, USF St. Petersburg Campus, St. Petersburg, FL.
17. **Zheng, L.Y.** and R.H. Weisberg. Storm surge potential for the Tampa Bay region. Presented on 5/17/06 at Tampa Bay Chapter of Risk and Insurance Management Society, Inc. (RIMS), Tampa, FL.
18. Weisberg, R. H. and **L. Y. Zheng**. What may have occurred had Hurricane Ivan made landfall within the Tampa Bay region? Presented on 6/6/06 at Tampa Bay Chapter of west central Florida American Meteorological Society, Tampa, FL.
19. **Zheng, L.Y.** and Weisberg, R. H. The applications of FVCOM to west Florida shelf and its estuaries? Presented on 6/20/06 at 2nd FVCOM workshop, University of Massachusetts- Dartmouth, New Bedford, MA.

20. **Zheng, L.Y.** and Weisberg, R. H. Finite Volume Model applications to: 1) Estuary-WFS and Estuary-Estuary interactions and 2) Tampa Bay estuary circulation. Poster at the State of the research on red tide in the Gulf of Mexico and public forum, Mote Marine Laboratory, Sarasota, FL.
21. **Zheng, L.Y.** and R.H. Weisberg. Hurricane storm surge: What is the potential for flooding in the Tampa Bay region? Presented on 10/28/06 at Tampa Bay Estuary Academy, St. Petersburg, FL.
22. **Zheng, L.Y.** Applications of 3-D hydrodynamic models to estuaries and continental shelves. Presented on 11/27/06 at St. Johns River Water Management District, FL.
23. **Zheng, L.Y.** and R.H. Weisberg. The application of FVCOM to Tampa Bay estuary circulation. Presented on 12/28/06 at Third Institute of Oceanography, State Oceanic Administration, Xia Men, China.
24. **Zheng, L.Y.** and R.H. Weisberg. Hurricane storm surge simulation for Tampa Bay, west Florida shelf. Presented on 12/29/06 at Third Institute of Oceanography, State Oceanic Administration, Xia Men, China.
25. Weisberg, R. H. and **L. Y. Zheng**. What may have occurred in Manatee County had hurricane Ivan made landfall within the Tampa Bay region? Presented on 6/1/07 at Manatee Emergency Management Summit 07, Bradenton, FL.
26. **Zheng, L.Y.** and Weisberg, R. H. A storm surge simulation for an Ivan-like hurricane making landfall within the Tampa Bay region. Poster at the 2007 Gordon Research Conference, Coastal Ocean Modeling, New London, NH.
27. Weisberg, R. H. and **L.Y. Zheng**. What may have occurred had Hurricane Ivan made landfall within the Tampa Bay region? Presented on 7/12/07 at Tampa Bay Regional Planning Council, St. Petersburg, FL.
28. **Zheng, L.Y.**, R.H. Weisberg, A. Alvera, and A. Barth. Finite Volume Model applications to: 1) Estuary-WFS and Estuary-Estuary interactions and 2) Tampa Bay estuarine circulation. Poster on 7/17/07 at the State of the Research on Red Tide in the Gulf of Mexico Workshop and Public Forum, Sarasota, Florida.
29. Weisberg, R. H. and **L. Y. Zheng**. Estuarine hydrodynamic modeling of Rookery Bay. Presented on 10/31/07 at Rookery Bay National Estuarine Research Reserve and Big Cypress Basin, SFWMD, Naples, Florida.
30. **Zheng, L.Y.** and R.H. Weisberg. A baroclinic circulation simulation for the shallow Florida Rookery Bay estuary. Presented on 19th biennial conference of the Estuarine Research Federation, Providence, RI on 11/8/07.
31. **Zheng, L.Y.**, R.H. Weisberg, A. Barth, and A. Alvera. Circulation influences on West Florida Shelf red-tide events: Finite volume model applications to shelf-estuary interactions. Poster on 3/3/08 at 2008 Ocean Science Meeting, Orlando, Florida.
32. Weisberg, R.H. and **L.Y. Zheng**. Ivan-like hurricane storm surge simulations for Tampa Bay, FL using 3-D and 2-D models. Presented on 4/10/08 at North Carolina State University.
33. Weisberg, R.H. and **L.Y. Zheng**. SECOORA success story: Red-tide studies linking the SECOORA region. Presented on 5/12/08 at SECOORA Workshop in St. Petersburg, Florida.
34. **Zheng, L.Y.** and R.H. Weisberg. The application of FVCOM to estimate the flushing time for Snug Harbor project in Tampa Bay, Florida. Presented on 6/12/08 at Third Institute of Oceanography, SOA, Ximen, Fujian, China.

35. **Zheng, LY.** and R.H. Weisberg. Rookery Bay and Naples Bay circulation simulations: applications to tides and fresh water regulations. Presented on 6/16/08 at International Symposium on Jiulong river watershed and Ximen Bay ecological system management, Third Institute of Oceanography, SOA, Ximen, Fujian, China.
36. Weisberg, R.H. and **L.Y. Zheng.** Charley and Isabel storm surge simulations using FVCOM: Preliminary analysis without waves. Presented on 6/22/08 at workshop for NOAA-funded project, Gainesville, Florida.
37. **Zheng, LY** and R.H. Weisberg. Rookery Bay and Naples Bay circulation simulations: applications to tides and fresh water regulations. Presented on 11/18/08 at Coastal Cities Submit, St. Pete Beach, Florida.
38. **Zheng, LY** and R.H. Weisberg. Ocean currents of the Eastern Gulf of Mexico. Presented on 10/12/09 at Tampa Bay Regional Planning Council, Florida.
39. **Zheng, LY** and R.H. Weisberg. Tampa Bay port and maritime restoration and reconstruction in the event of major spill or hurricane. Presented on 10/12/09 at Tampa Bay Port Authority, Florida.
40. **Zheng, LY** and R.H. Weisberg. Storm surge for an Ivan-like Hurricane making landfall near Tampa Bay. Presented on 10/20/09 at BASIS5, St. Petersburg, Florida.
41. Weisberg, R.H. and **L.Y. Zheng.** The Circulation of Tampa Bay Driven by Buoyancy, Tides and Winds, and Its Connection with the Adjacent Gulf of Mexico. Presented on 10/20/09 at BASIS5, St. Petersburg, Florida.
42. **Zheng, LY** and R.H. Weisberg. West Florida shelf circulation as comparison with red-tide bloom evolution for 2001. Presented on 5/20/10 at ECOHAB PI meeting, St. Petersburg, Florida.
43. **Zheng, LY** and R.H. Weisberg. Tampa Bay circulation driven by rivers, tides and winds, and its connection with the Gulf of Mexico: How the bay flushes. Presented on 06/07/2010 at Third Institute of Oceanography, SOA, Xiamen, China.
44. **Zheng, LY** and R.H. Weisberg. Tampa Bay circulation driven by rivers, tides and winds, and its connection with the Gulf of Mexico: How the bay flushes. Presented on 06/07/2010 at Third Institute of Oceanography, SOA, Xiamen, China.
45. **Zheng, LY** and R.H. Weisberg. A coordinated modeling approach in support of oil spill tracking. Presented on 09/16/2010 at FIO PI coordination workshop, Orlando, Florida.
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