

Ming Li

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**a. Professional Preparation.**

Hohai University

Fluid Mechanics

B.Eng., 1983

University of Oxford

Geophysical Fluid Dynamics

Ph.D., 1991

**b. Appointments.**

2001-present Associate Professor, Horn Point Laboratory, University of Maryland Center for Environmental Science, Cambridge, MD.

1996-2001 Research Scientist, Institute of Ocean Sciences, Canada.

1991-1996 Research Associate, University of Victoria, Canada.

**c. Publications**

**1) Publications in the last 3 years**

**Li, M.**, J. Trowbridge and W.R. Geyer. 2008. Asymmetric tidal mixing due to the horizontal density gradient. *J. Phys. Oceanogr.*, 38, 418-434.

**Li, M.** and L. Zhong. 2008. Flood-ebb and spring-neap variations of stratification, mixing and circulation in Chesapeake Bay. *Cont. Shelf Res.*, doi:10.1016/j.csr.2007.06.012, in press.

Zhong, L., **M. Li** and M.G. Foreman. 2008. Resonance and sea level variability in Chesapeake Bay. *Cont. Shelf Res.*, 28, 2565-2573.

North, E.W., Z. Schlag, R. R. Hood, **M. Li**, L. Zhong, T. Gross and V. S. Kennedy. 2008. Larval vertical swimming behavior may influence the dispersal of oysters in Chesapeake Bay. *Mar. Ecol. Prog. Ser.*, 359: 99-115.

Hilton, T. W., R. G. Najjar, L. Zhong and **M. Li**. 2008. Is there a signal of sea-level rise in Chesapeake Bay salinity? *J. Geophys. Res.*, 113: C09002, doi:10.1029/2007JC004247.

**Li, M.**, L. Zhong, W. C. Boicourt, S. Zhang and D.-L. Zhang. 2007. Hurricane-induced destratification and restratification in a partially-mixed estuary. *J. Mar. Res.*, 65, 169-192.

Piomelli, U., S. Radhakrishnan, L. Zhong and **M. Li**. 2007. Wall-layer models for large-eddy simulations of high reynolds number non-equilibrium flows. In Palma, J. M. L. M. and Silva Lopes, A., editors, *Advances in Turbulence XI*, pages 47-54, Berlin. Springer.

**Li, M.**, L. Zhong, W.C. Biocourt, S. Zhang and D-L. Zhang. 2006. Hurricane-induced storm surges, currents and destratification in a semi-enclosed bay. *Geophys. Res. Lett.*, 33, L02604, doi:10.1029/2005GL024992.

Zhong, L. and M. Li. 2006. Tidal energy fluxes and dissipation in the Chesapeake Bay. *Cont. Shelf Res.*, 26, 752-770.

#### Five Other Relevant Publications

- Li, M., L. Zhong and W.C. Boicourt. 2005. Simulations of the Chesapeake Bay estuary: sensitivity to turbulence mixing parameterization and comparison with observations. *J. Geophys. Res.*, C12004, doi:10.1029/2004JC002585.
- Li, M., C. Garrett and E. Skillingstad. 2005. A regime diagram for classifying turbulent large eddies in the upper ocean. *Deep-Sea Res. I*, 52, 259-278.
- Li, M., L. Sanford and S-Y Chao. 2005. Time-dependent effects in unstratified tidal flows: results from Large Eddy Simulations. *Est., Coast. & Shelf Sci.*, 62, 193-204.
- Gargett, A., M. Li and R. Brown. 2001. Testing mechanistic explanations of observed correlations between environmental factors and marine fisheries. *Can. J. Fish. & Aquatic Sci.*, 58, 208-219.
- Li, M., A. Gargett and K.L. Denman. 2000. What determines seasonal and interannual variability of phytoplankton and zooplankton in strongly estuarine system? *Est., Coast. & Shelf Sci.*, 50, 467-488.

#### **d. Selected Synergistic Activities:**

- National Science Foundation - proposal evaluation panel (2003, 2007).
- Faculty Senate, University of Maryland Center for Environmental Science (2003-2007).
- Co-Chair, Oceanography AOS (Area of Specialization), University of Maryland (2005-).
- Session Convener on dynamics of estuarine circulations and river plumes, Ocean Science Meeting (2008).
- American Geophysical Union Fall Meeting, Session Convenor on “Impact of climate variability and change on estuaries and coastal ocean” and “Tidal processes in coastal oceans and estuaries”, San Francisco (2008).

#### **University of Maryland Teaching and Training**

Member, Graduate Faculty, University of Maryland, College Park.

Courses taught include graduate level courses in: physics of marine and estuarine environments, climate variability and its impact on estuaries and ecosystem, transport processes and plankton distributions.

#### **f. Collaborators:**

##### **(i) Research Collaborators at other affiliations.**

W.R. Geyer, J.H. Trowbridge (Woods Hole Oceanographic Institution), C. Garrett (Univ. of Victoria), R. Najjar (Penn State), R.J. Chant (Rutgers), A. Valle-Levinson (Univ. of Florida), Hans Paerl (UNC-Chapel Hill), D. DiToro (Univ. of Delaware).

##### **(ii) Graduate and Postdoctoral Advisors.**

Doctoral Advisor - T. Brooke Benjamin.

Postdoctoral Advisors - Chris Garrett and David M. Farmer.

##### **(iii) Graduate and Postdoctoral Advisee.**

Current graduate students - Yun Li, Zengrui Rong, Jia Peng, Shuang Li and Dakui Wang (Ph.D, major advisor).

Postdoctoral fellows - L. Zhong (2002-2008, now Research Scientist at CSIRO).

REU students - M. Buck, A. Abler, S. Melderis.