

Jason G. Fleming

Biographical Sketch

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Professional Preparation

Youngstown State University	Mechanical Engineering	B.E. 1994
Texas A& M University	Mechanical Engineering	M.S. 1997
North Carolina State University	Doctor of Philosophy	2002
University of North Carolina at Chapel Hill	Numerical Modeling (ADCIRC)	2002-03
Nat. Inst. for Water and Atmospheric Research	Numerical Modeling (RiCOM)	2003-05
University of North Carolina at Chapel Hill	Numerical Modeling (ADCIRC)	2005-08

Professional Appointments

Chief Engineer Seahorse Coastal Consulting, LLC 2008–present

Publications and Reports:

1. J.C. Dietrich, C.N. Dawson, J.M Proft, M.T. Howard, G. Wells, J.G. Fleming, R.A. Luettich Jr, J.J. Westerink, Z. Cobell, M. Vitse, H. Lander, B.O. Blanton, C.M. Szpilka, J.H. Atkinson (2013). Real-Time Forecasting and Visualization of Hurricane Waves and Storm Surge Using SWAN+ADCIRC and FigureGen. *Computational Challenges in the Geosciences*, The IMA Volumes in Mathematics and its Applications, 156, 49-70, DOI: 10.1007/978-1-4614-7434-0_3.
2. Dresback, K.M., J.G. Fleming, B.O. Blanton, C. Kaiser, J.J. Gourley, E.M. Tromble, R.A. Luettich, Jr., R.L. Kolar, Y. Hong, S. Van Cooten, H.J. Vergara, Z.L. Flamig, H.M. Lander, K.E. Kelleher, K.L. Neumunatis-Monroe, Skill Assessment of a Real-Time Forecast System Utilizing a Coupled Hydrologic and Coastal Hydrodynamic Modeling During Hurricane Irene (2011), *Continental Shelf Research*, 71(2013):78-94, DOI: 10.1016/j.csr.2013.10.007.
3. J.V. Reynolds-Fleming, Luettich, R.A., and J. G. Fleming, 2013. Comparative Hydrodynamics during Events along a Barrier Island: Explanation for Overwash, *Estuaries and Coasts*, Volume 36, Issue 2, pp. 334–346, DOI: 10.1007/s12237-012-9578-8.
4. J.C. Dietrich, C.J. Trahan, M.T. Howard, J.G. Fleming, R.J. Weaver, S. Tanaka, L. Yu, R.A. Luettich Jr., C.N. Dawson, J.J. Westerink, G. Wells, A. Lu, K. Vega, A. Kubach, K.M. Dresback, R.L. Kolar, C. Kaiser, R.R. Twilley (2012). Surface Trajectories of Oil Transport along the Northern Coastline of the Gulf of Mexico. *Continental Shelf Research*, 41(1), 17-47, DOI:10.1016/j.csr.2012.03.015.
5. Blanton, B., J. McGee, J. Fleming, C. Kaiser, H. Kaiser, H. Lander, R. Luettich, K. Dresback, R. Kolar, 2012, Urgent computing of storm surge for North Carolinas coast, *Proceida Computer Science* 9 (2012) 1677-1686.
6. J.G. Fleming, 2012a: *The ASGS Developers Guide*. Seahorse Coastal Consulting Technical Report asgsDG2014. Available online at <https://github.com/jasonfleming/asgs>.
7. J.G. Fleming, 2012b: *The ASGS Operators Guide*. Seahorse Coastal Consulting Technical Report asgsOG2014. Available online at <https://github.com/jasonfleming/asgs>.
8. J.G. Fleming, 2012c: The ADCIRC Surge Guidance System 2014. Software release from Seahorse Coastal Consulting. Available from <https://github.com/jasonfleming/asgs>.

9. J. Fleming, C. Fulcher, R. Luettich, B. Estrade, G. Allen, and H. Winer, 2008. A Real Time Storm Surge Forecasting System using ADCIRC, *Estuarine and Coastal Modeling X*, M. L. Spaulding [ed], ASCE, 373-392.
10. C. Forbes, Fleming, J., Mattocks, C., Fulcher, C, Luettich, R., Westerink, J., and S. Bunya, 2008. New Developments in the ADCIRC Community Model, *Estuarine and Coastal Modeling X*, M. L. Spaulding [ed], ASCE, 373-392.
11. J.V. Reynolds-Fleming J.G. Fleming, 2005. Coastal circulation within the Banks Peninsula Region, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 39(1):217–225.
12. J.V. Reynolds-Fleming, Fleming, J.G., and R.A. Luettich, 2002. Portable autonomous vertical profiler for estuarine applications. *Estuaries* 25(1):142-147.

Professional Activities

Jason Fleming conceived, founded, organizes, and team teaches the annual ADCIRC Boot Camp training event as a means of technology transfer and capacity building within the ADCIRC community, both in the professional and academic spheres. Jason organizes the ADCIRC Boot Camp (every Spring since 2010) to coincide with the ADCIRC Workshop and Users Group meeting. The event provides three days of intensive training for newcomers to the ADCIRC community.

Academic attendees include graduate students and faculty from a wide cross section of academia, including institutions such as Massachusetts Institute of Technology, Stanford University, Jackson State University, University of Texas-Pan American, Louisiana State University, University of Central Florida, Kunsan University (Korea), Middle East Technical University (Turkey), University of Cantabria (Spain), and the National Autonomous University of Mexico, among others.

Professional trainees in the ADCIRC Boot Camp also come from a wide variety of government, private sector, and nonprofit agencies, including the US Army Corps of Engineers, the National Oceanic and Atmospheric Administration, the Naval Research Lab, The Water Institute of the Gulf, URS Corporation, Michael Baker Inc, CDM Smith, Moffat and Nichol, AMEC, Taylor Engineering, and IBM.

Finally, the ADCIRC Boot Camp event also includes a capacity building element for real time forecasting with the ADCIRC Surge Guidance System (ASGS): a training workshop entitled *ASGS Up and Running*. The intent of this component is to drive broad adoption of the ASGS technology into the wider academic and professional communities through teaching, support, and technology transfer.

Collaborators and Co-Editors

Clint Dawson, University of Texas; Kendra Dresback, University of Oklahoma; Carola Kaiser, Louisiana State University; Randall Kolar, University of Oklahoma; Rick Luettich, University of North Carolina at Chapel Hill; Janelle V. Reynolds-Fleming, Seahorse Coastal Consulting, LLC; Robert Twilley, Louisiana State University; Robert Weaver, Florida Institute of Technology; Joannes Westerink, University of Notre Dame.

Graduate Advisors and Postdoctoral Sponsors

Rick Luettich, Postdoctoral Sponsor, University of North Carolina at Chapel Hill, Roy Walters, Postdoctoral Sponsor, Ocean River Hydro (formerly of National Institute of Water and Atmospheric Research), Richard Johnson, PhD advisor, North Carolina State University; Jeff Haberl, MS co-advisor, Texas A&M University, David Claridge, MS co-advisor, Texas A&M University.