

Andrew Kennedy

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EDUCATIONAL BACKGROUND

Monash University, Australia	Mechanical Engineering	PhD	1998
University of British Columbia	Civil Engineering	MASc	1993
Queen's University	Civil Engineering	BScE	1991

EMPLOYMENT

Assistant Professor, Department of Civil Engineering and Geological Sciences,
University of Notre Dame, January 2008-present
Assistant Professor, Department of Civil and Coastal Engineering, University of Florida,
August 2001-December 2007
Postdoctoral Researcher, Center for Applied Coastal Research, University of Delaware,
August 1997-July 2001
Commonwealth Fellow, Monash University, March 1994-June 1997
Research Engineer, National Research Council, Ottawa, September 1993-December 1993

RESEARCH AREAS

Coastal engineering; Water wave transformation and effects on human activities;
Nearshore morphological development; Sensing systems for coastal zones

REFEREED JOURNAL PUBLICATIONS (20)

- Kennedy, A.B., Slatton, K.C., Hsu, T.-J., Starek, M.J., and Kampa, K. (2008).
“Ephemeral sand waves in the hurricane surf zone”, *Marine Geology*, in press.
- Kennedy, A.B., and Zhang, Y. (2008). “The stability of wave-driven rip current
circulation”, *J. Geophys. Res.-Oceans*, in press.
- Kennedy, A.B., Zhang, Y., and Haas, K.A. (2008). "Rip Currents with Varying Gap
Widths", *J. Waterway, Ports, Harbor, Coastal and Ocean Eng.-ASCE*, **134**(1), 61-
65.
- Haas, K.A., Kennedy, A.B., and Sapp, B (2008). "Video measurements of large scale
flows in a laboratory basin", *J. Waterway, Ports, Harbor, Coastal and Ocean Eng.-
ASCE*, **134**(1), 12-20.

- Kennedy, A.B., Brocchini, M., Soldini, L., and Guttierrez, E. (2006). "Topographically-controlled, breaking wave-induced macrovortices. Part 2. Changing Geometries", *J. Fluid Mech.*, **559**, 57-80.
- Kennedy, A.B. (2005). "Fluctuating circulation forced by unsteady, multidirectional waves", *J. Fluid Mech.*, **538**, 189-198.
- Kennedy, A.B., and Thomas, D. (2004). "Drifter measurements in a laboratory rip current", *Journal of Geophysical Research, Oceans*, **109**, C08005, doi:10.1029/2003JC001927.
- Brocchini, M., Kennedy, A., Soldini, L., and Mancinelli, A. (2004). "Topographically-controlled, breaking wave-induced macrovortices. Part 1. Widely separated breakwaters", *J. Fluid Mech.*, **507**, 289-307.
- Kennedy, A.B. (2003). "A circulation description of a rip current neck", *J. Fluid Mech.*, **497**, 225-234.
- Kennedy, A.B., and Kirby, J.T. (2003). "An unsteady wave driver for narrow-banded waves: Modeling nearshore circulation driven by wave groups", *Coastal Engineering*, **48**(4), 257-275.
- Misra, S. K., Kennedy, A. B. and Kirby, J. T., (2003). "An approach to determining nearshore bathymetry using remotely sensed ocean surface dynamics", *Coastal Engineering*, **47**(3), 265-293.
- Kennedy, A.B., Kirby, J.T., and Gobbi, M.F. (2002) "Simplified higher order Boussinesq equations. 1: Linear simplifications.", *Coastal Eng.*, **44**(3), 205-229.
- Shi, F., Dalrymple, R.A., Kirby, J.T., Chen, Q., and A. Kennedy (2001). "A fully nonlinear Boussinesq model in generalised curvilinear coordinates". *Coastal Engineering* **42**(4), 337-358. (Note: 9th most downloaded paper in *Coastal Engineering*, Jan 2001-Dec. 2001.)
- Kennedy, A.B, Kirby, J.T., Chen, Q., and Dalrymple, R.A. (2001). "Boussinesq-type equations with improved nonlinear performance". *Wave Motion* **33**, 225-243.
- Kennedy, A.B., Dalrymple, R.A., Kirby, J.T., and Chen, Q. (2000). "Determination of inverse depths using direct Boussinesq modeling", *J. Waterway, Port, Coastal and Ocean Eng.*, **126**(4), 206-214.
- Kennedy, A.B., Chen, Q., Kirby, J.T., and Dalrymple, R.A. (2000). "Boussinesq modeling of wave transformation, breaking and runup. I: 1D" *J. Waterway, Port, Coastal and Ocean Eng.*, **126**, 39-47.
- Chen, Q., Kirby, J.T., Dalrymple, R.A., Kennedy, A.B., and Chawla, A.[#] (2000). "Boussinesq modeling of wave transformation, breaking and runup. II: 2D". *J. Waterway, Port, Coastal and Ocean Eng.*, **126**, 48-56.
- Chen, Q., Kirby, J.T., Dalrymple, R.A., Kennedy, A.B., and Haller, M.C.[#] (1999). "Boussinesq modelling of a rip current system". *J Geophys, Res.* **104**(9): 20,617-20,637.
- Kennedy, A.B., and Fenton, J.D. (1997). "A fully-nonlinear numerical method for wave propagation over topography", *Coastal Eng.* **32**(2), 137-162.
- Isaacson, M., Kennedy, A.B., and Baldwin, J. (1996). "Wave reflection effects on small craft motions", *Canadian J. Civil Eng.* **23**(2), 340-346.

Journal	ISI Impact Factor	ISI Ranking, Subject Category	Number of Papers
Canadian J. Civil Eng.	0.314	66/83, Engineering, Civil	1
Coastal Eng.	1.315	6/83, Engineering, Civil	5
J. Fluid Mechanics	2.022	10/109, Mechanics	4
J. Geophysical Research	2.800	9/131, Geosciences, Multidisciplinary	3
J. Waterway, Port, Coastal and Ocean Eng-ASCE	0.580	37/83, Engineering, Civil	5
Marine Geology	2.029	26/131, Geosciences, Multidisciplinary	1
Wave Motion	1.178	27/109, Mechanics	1
Total ISI citations as of January 17, 2007: 210			

CONTRACTS AND GRANTS

Role	Total	Direct Cost	Indirect Cost
Principal Investigator	\$587,728	\$443,403	\$144,325
Co-Principal Investigator	\$935,464	\$713,910	\$221,554
Totals	\$1,523,192	\$1,157,313	\$365,879

RESEARCH STUDENTS

4 MSc (all graduated)
 2 Phd (1 graduated, 1 in progress)
 3 Undergraduate

JOURNAL REVIEWING ACTIVITIES

Journal of Waterway, Port, Coastal and Ocean Engineering, ASCE; Journal of Coastal Research,; Journal of Geophysical Research-Oceans; Journal of Physical Oceanography; Journal of Fluid Mechanics; Coastal Engineering; Physics of Fluids; Continental Shelf Research; International Journal for Numerical Methods in Fluids; Journal of Engineering Mechanics; IAHR Journal of Hydraulic Research; Applied Mathematical Modeling

FUNDING AGENCY REVIEWING ACTIVITIES

Sea Grant, National Science Foundation (*Physical Oceanography, Fluid Mechanics and Hydraulics, Network for Earthquake Engineering Simulation Research*), Caribbean Coral Reef Institute

COURSES TAUGHT

CE 30460 Fluid Mechanics (1 time, compulsory)
OCP 6165 Ocean Waves 1 (7 Times, compulsory)
OCP 6165L Ocean Waves Lab (5 Times, compulsory)
EOC 6934 Engineering Wave Models (4 Times) (New Course, optional)
EOC 6934 Nearshore Hydrodynamics (1 Time) (New Course, optional)
EOC 6934 Wave Analysis and Coastal Structures (1 Time) (New Course, compulsory)

TEACHING EVALUATIONS (AT UNIVERSITY OF FLORIDA)

Evaluation	Mean Rating (based on 1 to 5 with 5 being the highest possible rating)		
	Dr. Kennedy	Department	College
Instructor Evaluation	4.11	4.12	4.02
Instructor Overall	4.16	4.18	4.07
Additional Questions	4.19	4.09	3.95