

Robert J. Chant

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Education

1985 B.S. Electrical Engineering. SUNY at Buffalo.

1991 M.S. Marine Environmental Sciences. Marine Sciences Research Center, SUNY at Stony Brook

1995 Ph.D. Oceanography. Marine Sciences Research Center, SUNY at Stony Brook

Employment

1995-1998 Post doctoral associate IMCS Rutgers University.

1998-2002 Assistant Research Professor IMCS Rutgers University

2002-2008 Assistant Professor IMCS Rutgers University

2008-present Associate Professor IMCS Rutgers University

Publications last 3 years

Cahill, B., O. Schofield, **R. Chant**, J. Wilkin, E. Hunter, S. Glenn, and P. Bissett 2008.

Dynamics of turbid buoyant plumes and the feedbacks on near-shore biogeochemistry and physics, *Geophysical Research Letters* doi:10.1029/2008GL033595

Geyer, W. R., **R. Chant**, and R. Houghton (2008), Tidal and spring-neap variations in horizontal dispersion in a partially mixed estuary, *J. Geophys. Res.*, 113, C07023, doi:10.1029/2007JC004644.

Castelao, R., O. Schofield, S. Glenn, R. Chant, and J. Kohut 2008. Cross-shelf transport of freshwater on the New Jersey shelf, *Journal Geophysical Research*, 113, C07017, doi:10.1029/2007JC004241.

Mikkelsen, O.A. T. G. Milligan, P. S. Hill, **R. J. Chant**, C. F. Jago, S. E. Jones, V. Krivtsov, G. Mitchelson-Jacob, The influence of schlieren on in situ optical 2 measurements used for particle characterization, *Limnology and Oceanography Methods*, 2008, 6:133-143

Castelao, R., O. Schofield, S. Glenn, **R. Chant**, J. Wilkin, J. Kohut. (2008) Seasonal evolution of hydrographic fields in the central Middle Atlantic Bight. 35, L03617, doi:10.1029/2007GL032335, 2008 *Geophysical Research Letters*

Chant, R. J., S. M. Glenn, E. Hunter, J. Kohut, R. F. Chen, R. W. Houghton, J. Bosch, and O. Schofield (2008), Bulge Formation of a Buoyant River Outflow, *J. Geophys. Res.*, doi:10.1029/2007JC004100

Hunt, H., M.J. Maltais, D. Fugate and **R.J. Chant**. 2007, "Spatial and temporal variability in juvenile bivalve dispersal: effects of sediment transport and flow regime" *Marine Ecology Progress Series*, 352 145-150

Chant, R.J., W.R. Geyer, R.H Houghton, E. Hunter and J. Lerczak (2007) "Estuarine boundary layer mixing processes: insights from dye experiments" *Journal of Physical Oceanography* Vol. 37 No 7 1859-1877

Valle-Levinson, A., K. Holderied, C. Li, and **R. J. Chant** (2007), Subtidal flow structure at the turning region of a wide outflow plume, *J. Geophys. Res.*, 112, C04004, doi:10.1029/2006JC003746.

- Hunter, E., **R. J. Chant**, L. Bowers, S. Glenn, and J. Kohut, 2007, Spatial and temporal variability of diurnal wind forcing in the coastal ocean, *Geophys. Res. Lett.*, 34, L03607, doi:10.1029/2006GL028945.
- Lerczak, J., W.R. Geyer and **R.J. Chant** 2006 Mechanisms driving the time-dependent salt flux in partially stratified estuary. *Journal of Physical Oceanography*, Vol. 36, No. 12, pages 2283–2298.
- Ma H, J.P. Grassle and **R.J. Chant** , 2006, Vertical distribution of bivalve larvae along a cross shelf transect during summer upwelling and downwelling. *Marine Biology* 149:1123-1138
- Fugate, D.C., **R.J. Chant**, 2006, Aggregate settling velocity of combined sewage overflow. *Marine Pollution Bulletin* 52, pp 427-432
- Mikkelsen O. A., P. S. Hill, T. G. Milligan, R. J. Chant, 2005, In situ particle size distributions and volume concentrations from a LISST-100 laser particle sizer and a digital floc camera. *Continental Shelf Research* vol 25 1959-1978
- Fugate, D.A. and **R. J. Chant**. 2005 Near bottom shear stresses in a small highly stratified estuary. *J. Geophys. Res.*, C03022, doi:10.1029/2004JC002563

5 other significant publications

- Chant, R. J.** 2002. Secondary flows in a region of flow curvature: relationship with tidal forcing and river discharge. *Journal of Geophysical Research*. 10.1029/2001JC001082, 21 September
- Chant, R. J.** and A. Stoner. 2001, Particle trapping in a stratified flood-dominated estuary. *Journal of Marine Research*. 59:29-51
- Chant, R. J.** 2001. Evolution of near-inertial waves during an upwelling event on the New Jersey inner shelf. *Journal of Physical Oceanography*. 31:746-76
- Chant, R. J.** and R. E. Wilson. 2000. Internal hydraulics and mixing in a highly stratified estuary. *Journal of Geophysical Research*. 106:14215-14222.
- Chant, R. J.** and R. E. Wilson. 1997. Secondary circulation in a highly stratified estuary. *Journal of Geophysical Research*. 102:23207-23216.

Synergistic Activities. I integrate research, teaching and service that is focused on estuarine and coastal dynamics and the impact that the resulting physical, chemical and biological processes have on the marine ecosystem. I have advised local, state, federal and foreign governments on issues related to the marine environment. I teach the courses in physical oceanography, coastal and estuarine dynamics, geophysical data analysis techniques, coastal ocean observing systems and a new undergraduate course focusing on the interactions between humans and the coastal ocean. I advise and mentor undergraduates, graduate students and post-doctoral fellows. My work has been covered by both the local and national media. I have served on an NSF Ocean Science panels and have reviewed proposals and papers for 20 different journals and over a dozen funding agencies.

Outside Collaborators (past 2 years) Bob Chen (UMASS Boston), Tom Frazer (U Florida), Rocky Geyer (WHOI), Bob Houghton (Lamont-Doherety Earth Observatory), Jim Lerczak (WHOI), Tim Milligan (Bedford institute of Oceanography), Ole Mikkelsen (U Bangor UK), Heather Hunt (University of New Brunswick Canada.),

Graduate Advisors: Robert E. Wilson (SUNY Stony Brook),

Postdoc advisors: Scott Glenn (Rutgers), Andreas Munchow (University of Delaware).

Postdoc Advisees: David Fugate (Now at Gulf Coast University, Florida);

Graduate Students: Joe Jurisa, Maria Aristizabal, Jige Guo (all current grad students)