

IES Bibliography

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Alford, M., H. T. Peacock, J. A. MacKinnon, J. D. Nash, M. C. Buijsman, L. R. Centurioni, S.-Y. Chao, M.-H. Chang, D. M. Farmer, O. B. Fringer, K.-H. Fu, P. C. Gallacher, H. C. Graber, K. R. Helfrich, S. M. Jachec, C. R. Jackson, J. M. Klymak, D. S.Ko, S. Jan, T. M. Shaun Johnston, S. Legg, I.-H. Lee, R.-C. Lien, M. J. Mercier, J. N. Moum, R. Musgrave, J.-H. Park, A. I. Pickering, R. Pinkel, L. Rainville, S. R. Ramp, D. L. Rudnick, S. Sarkar, A. Scotti, H. L. Simmons, L. C. St Laurent, S. K. Venayagamoorthy, Y.-H. Wang, J. Wang, Y. J. Yang, T. Paluszkiwicz, T.-Y. Tang, 2015, The formation and fate of internal waves in the South China Sea, *Nature*, 521, 65–69, [doi:10.1038/nature14399](https://doi.org/10.1038/nature14399).

Andres, M., 2008, [An observational study of the Kuroshio in the East China Sea: local, regional and basin-wide perspectives on a western boundary current](#), Ph.D. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 136 pp.

Andres, M., S. Jan, T. B. Sanford, V. Mensah, L. R. Centurioni and J. W. Book, 2015. Mean Structure and Variability of the Kuroshio from Northeastern Taiwan to Southwestern Japan, *Oceanography*, 28(4), 84–95, [doi: 10.5670/oceanog.2015.84](https://doi.org/10.5670/oceanog.2015.84).

Andres, M., J.-H. Park, M. Wimbush, X.-H. Zhu, K.-I. Chang and H. Ichikawa, 2008, Study of the Kuroshio/Ryukyu current system based on satellite-altimeter and in situ measurements, *Journal of Oceanography*, 64, 937–950, [doi:10.1007/s10872-008-0077-2](https://doi.org/10.1007/s10872-008-0077-2).

- Andres, M., A. Silvano, F. Straneo, and D. R. Watts, 2015, Icebergs and Sea Ice Detected with Inverted Echo Sounders, *J. Atmos. Oceanic Technol.*, *32*, 1042–1057, doi: [10.1175/JTECH-D-14-00161.1](https://doi.org/10.1175/JTECH-D-14-00161.1).
- Andres, M., M. Wimbush, J.-H. Park, K.-I. Chang, B.-H. Lim, D.R. Watts, H. Ichikawa and W.J. Teague, 2008, Observations of Kuroshio flow variations in the East China Sea, *J. Geophys. Res.*, *113*, C05013, doi:[10.1029/2007JC004200](https://doi.org/10.1029/2007JC004200).
- Andres, M., M. Wimbush, J.-H. Park, K.L. Tracey, D.R. Watts, W. Teague, D.A. Mitchell and H. Ichikawa, 2005, [East China Sea Kuroshio 2002-2004 data report](#). *GSO Technical Report 2005-02*.
- Ansorge, I. J., M. O. Baringer, E. J. D. Campos, S. Dong, R. A. Fine, S. L. Garzoli, G. Goni, C. S. Meinen, R. C. Perez, A. R. Piola, M. J. Roberts, S. Speich, J. Sprintall, T. Terre, and M. A. Van den Berg, 2014, Basin-Wide Oceanographic Array Bridges the South Atlantic, *Eos, Transactions American Geophysical Union*, *95(6)*, 53–54, doi:[10.1002/2014EO060001](https://doi.org/10.1002/2014EO060001).
- Ashley, J., R. Spencer, and J. Vassie, 1998, An inverted echo sounder for monitoring layer thickness in stratified oceans, *IEEE Oceans '98 Conf. Rec.*, *1*, pp. 248–252, IEEE/OES, Piscataway, New Jersey.
- Baker, D.J., 1981, Ocean instruments and experiment design. In *Evolution of Physical Oceanography*, B.A. Warren and C. Wunsch, eds., MIT Press, 396–433.
- Baker-Yeboah, S. 2008, [Sea surface height variability and the structure of eddies in the South Atlantic Cape Basin](#), Ph.D. thesis, Graduate School of Oceanography, Univ. Rhode Island, 308 pp.
- Baker-Yeboah, S., D. A. Byrne, and D. R. Watts, 2010, Observations of mesoscale eddies in the South Atlantic Cape Basin: Baroclinic and deep barotropic eddy variability, *J. Geophys. Res.*, *115*, C12069, doi:[10.1029/2010JC006236](https://doi.org/10.1029/2010JC006236).
- Baker-Yeboah, S., D. R. Watts and D. Byrne, 2009, Measurements of sea surface height variability in the eastern South Atlantic from pressure-sensor equipped inverted echo sounders: baroclinic and barotropic components, *J. Atmos. Oceanic Technol.*, *26(12)*, 2593–2609, doi:[10.1175/2009JTECHO659.1](https://doi.org/10.1175/2009JTECHO659.1).

- Baringer, M. O., T. Kanzow, and et al, Rayner, D. (ed.), 2007, [RV Ronald H. Brown Cruise RB0602 and RRS Discovery cruise D304, Rapid Mooring Cruise Report March and May 2006](#). Southampton, UK, National Oceanography Centre Southampton, 165 pp. *National Oceanography Centre Southampton Cruise Report, 16*.
- Beal, L. M., S. Elipot, A. Houk, and G. M. Leber, 2015, Capturing the Transport Variability of a Western Boundary Jet: Results from the Agulhas Current Time-Series Experiment (ACT), *J. Phys. Oceanogr.*, *45*(6), 1302–1324, [doi:10.1175/JPO-D-14-0119.1](#).
- Behnisch, M., A. Macrander, O. Boebel, J.-O. Wolff, and J. Schroter, 2013, Barotropic and deep-referenced baroclinic SSH variability derived from Pressure Inverted Echo Sounders (PIES) south of Africa, *J. Geophys. Res. Oceans*, *118* (6), 3046–3058, [doi: 10.1002/jgrc.20195](#).
- Bianchi, A., and S.L. Garzoli, 1995, Variability and motion of the Brazil-Malvinas Front, *GeoActa*, *22*, 74–90.
- Bishop, S. P., 2012, [The Role of Eddy Fluxes in the Kuroshio Extension at 144°–148°E](#), Ph.D. thesis, Graduate School of Oceanography, Univ. Rhode Island, 128 pp.
- Bishop, S. P., 2013, Divergent Eddy Heat Fluxes in the Kuroshio Extension at 144°–148°E. Part II: Spatiotemporal Variability, *J. Phys. Oceanogr.*, *43*, 2416–2431, [doi:10.1175/JPO-D-13-061.1](#).
- Bishop, S. P. and F. O. Bryan, 2013, A Comparison of Mesoscale Eddy Heat Fluxes from Observations and a High-Resolution Ocean Model Simulation of the Kuroshio Extension, *J. Phys. Oceanogr.*, *43*, 2563–2570, [doi: 10.1175/JPO-D-13-0150.1](#).
- Bishop, S. P. and D. R. Watts, 2014, Rapid Eddy-Induced Modification of Subtropical Mode Water during the Kuroshio Extension System Study, *J. Phys. Oceanogr.*, *44*, 1941–1953, [doi: 10.1175/JPO-D-13-0191.1](#).

- Bishop, S. P., D. R. Watts, and K. A. Donohue, 2013, Divergent eddy heat fluxes in the Kuroshio Extension at 144°–148°E. Part 1: mean structure, *J. Phys. Oceanogr.*, *43*, 1533–1550, [doi:10.1175/JPO-D-12-0221.1](https://doi.org/10.1175/JPO-D-12-0221.1).
- Bishop, S. P., D. R. Watts, J.-H. Park, and N. G. Hogg, 2012, Evidence of bottom-trapped currents in the Kuroshio Extension region, *J. Phys. Oceanogr.*, *42*(2), 321–328, [doi:10.1175/JPO-D-11-0144.1](https://doi.org/10.1175/JPO-D-11-0144.1).
- Bitterman, D.S., Jr., 1976, Inverted echo sounder instrument report. Woods Hole Oceanographic Institution Tech. Rept. No. 76–67, 47 pps.
- Bitterman, D.S., Jr., and D.R. Watts, 1979, The inverted echo sounder. *IEEE Oceans '79 Conf. Rec.*, 302–306.
- Book, J., 1998: Kuroshio variations off southwest Japan. MS thesis, 92 pp., Grad. Sch. of Oceanogr., Univ. of R. I., Narragansett.
- Book, J., K. L. Tracey, M. Wimbush, H. Ichikawa, S. Imawaki, H. Uchida, and H. Kinoshita, 1999: The Kuroshio region off southwest Japan ASUKA 1993–95 Inverted echo sounder data report. University of Rhode Island GSO Tech. Rept. No. 99–1, 28 pps.
- Book, J., M. Wimbush, S. Imawaki, H. Ichikawa, and H. Uchida, 2000, [Inverted echo sounder observations of Kuroshio meanders south of Japan](#). *Western Boundary Currents Virtual Poster Session, November 2000*.
- Book, J., M. Wimbush, S. Imawaki, H. Ichikawa, H. Uchida, and H. Kinoshita, 2002, Kuroshio temporal and spatial variations south of Japan, determined from inverted-echo-sounder measurements. *J. Geophys. Res.* *107*(C9), [doi:10.1029/2001JC000795](https://doi.org/10.1029/2001JC000795).
- Book, J., M. Wimbush, S. Imawaki, H. Ichikawa, H. Uchida, and H. Kinoshita, 2002, Correction to 'Kuroshio temporal and spatial variations south of Japan, determined from inverted-echo-sounder measurements'. *J. Geophys. Res.* *107*(C12), [doi:10.1029/2002JC001678](https://doi.org/10.1029/2002JC001678).
- Brown, W. S., 1998, Boundary flux measurements in the coastal ocean, IN *The Sea, 10*, eds. K.H. Brink and A.R. Robinson, John Wiley and sons, Inc, 399–418.

- Cartwright, D.E., 1982, The tidal signal in inverted echo-sounder records. *Deep-Sea Res.*, *29*, 767–784, [doi:10.1016/0198-0149\(82\)90005-X](https://doi.org/10.1016/0198-0149(82)90005-X).
- Cartwright, D.E., R. Spencer and J.M. Vassie, 1987, Pressure variations on the Atlantic equator. *J. Geophys. Res.*, *92*, 725–741 [doi: 10.1029/JC092iC01p00725](https://doi.org/10.1029/JC092iC01p00725).
- Chang, K.-I., W.J. Teague, S.J. Lyu, H.T. Perkins, D.-K. Lee, D.R. Watts, Y.B. Kim, D.A. Mitchell, C.M. Lee, and K. Kim, 2004, Circulation and currents in the southwestern East/Japan Sea, *Progress in Oceanography*, *61*, 105–156.
- Chaplin, G.F., 1990, Acoustic telemetry system for real-time monitoring of the Gulf Stream path. *IEEE Oceans '90 Conference Proceedings*, 46–51.
- Chaplin, G.F., and D.R. Watts, 1984, Inverted echo sounder development. *IEEE Oceans '84 Conf. Rec.*, *1*, pp. 249–253, Int. of Electr. and Electr. Eng., New York.
- Chaplin, G.F., and D.R. Watts, 1984, Inverted echo sounder (IES) instrument report. University of Rhode Island GSO Tech. Rept. No. 84-4, 40 pps.
- Chereskin, T. K., K. A. Donohue, D. R. Watts, K. L. Tracey, Y. Firing, and A. L. Cutting, 2009, Strong bottom currents and cyclogenesis in Drake Passage, *Geophys. Res. Lett.*, *36*(L23602), [doi:10.1029/2009GL040940](https://doi.org/10.1029/2009GL040940).
- Chidichimo, M. P., K. A. Donohue, D. R. Watts, and K. L. Tracey, 2014, Baroclinic Transport Time Series of the Antarctic Circumpolar Current Measured in Drake Passage. *J. Phys. Oceanogr.*, *44*, 1829–1853, [doi:10.1175/JPO-D-13-071.1](https://doi.org/10.1175/JPO-D-13-071.1).
- Chiswell, S.M., 1994, Using an array of inverted echo sounders to measure dynamic height and geostrophic current in the North Pacific subtropical gyre. *J. Atmos. Oceanic Technol.*, *11*, 1420–1424.
- Chiswell, S.M., 1994, Vertical structure of the baroclinic tides in the Central North Pacific subtropical gyre. *J. Phys. Oceanogr.*, *24*, 2032–2039, [doi:10.1175/1520-0485\(1994\)24\[2032:VSOTBT\]2.0.CO;2](https://doi.org/10.1175/1520-0485(1994)24[2032:VSOTBT]2.0.CO;2).

- Chiswell, S.M., 1996, Intra-annual oscillations at Station ALOHA, north of Oahu, Hawaii. *Deep-Sea Res. II*, 43, 305–319, [doi:10.1016/0967-0645\(95\)00089-5](https://doi.org/10.1016/0967-0645(95)00089-5).
- Chiswell, S.M., 2002, Energy levels, phase, and amplitude modulation of the baroclinic tide off hawaii. *J. Phys. Oceanogr.* , 32 2640–2651.
- Chiswell, S.M., K.A. Donohue, and M. Wimbush, 1995, Variability in the Central Equatorial Pacific, 1985–1989. *J. Geophys. Res.*, 100, 15,849–15,863, [doi:10.1029/95JC01379](https://doi.org/10.1029/95JC01379).
- Chiswell, S., E. Firing, D. Karl, R. Lukas and C. Winn, 1990, Hawaii Ocean Time-series Program Data Report 1, 1988–1989. SOEST Tech. Rept. #1, School of Ocean and Earth Science and Technology, Univ. of Hawaii, Honolulu, HI, 269 pp.
- Chiswell, S.M., D.R. Watts and M. Wimbush, 1986, Using inverted echo sounders to measure dynamic height in the eastern equatorial Pacific during the 1982–83 El Niño. *Deep-Sea Res.*, 33, 981–991, [doi:10.1016/0198-0149\(86\)90011-7](https://doi.org/10.1016/0198-0149(86)90011-7).
- Chiswell, S.M., D.R. Watts and M. Wimbush, 1987, Inverted echo sounder observations of variability in the eastern equatorial Pacific during the 1982–83 El Niño. *Deep-Sea Res.*, 34, 313–327 [doi:10.1016/0198-0149\(87\)90140-3](https://doi.org/10.1016/0198-0149(87)90140-3).
- Chiswell, S.M., M. Wimbush and R. Lukas, 1988, Comparison of dynamic height measurements from an inverted echo sounder and an island tide gauge in the central Pacific. *J. Geophys. Res.* 93, 2277–2283.
- Cox, J., C. Coomes, S. DiMarco, K. Donohue, G. Z. Forristall, P. Hamilton, R. R. Leben, and D. R. Watts, 2010, [Study of deepwater currents in the eastern Gulf of Mexico](#), OCS Study BOEMRE 2010-041, U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Gulf of Mexico OCS Region, New Orleans, LA, 473 pp.
- Cornillon, P., and D.R. Watts, 1987, Satellite thermal infrared and inverted echo sounder determinations of the Gulf Stream northern edge. *J. Atmos. Oceanic Technol.*, 4, 712–723.

- Cronin, M., E. Carter, and D.R. Watts, 1992, Prediction of the Gulf Stream path from upstream parameters. *J. Geophys. Res.*, *97*, 7257–7269, [doi:10.1029/92JC00600](https://doi.org/10.1029/92JC00600).
- Cronin, M., K.L. Tracey, and D.R. Watts, 1987, The Gulf Stream Dynamics Experiment: IES data report for the May 1985 to July 1986 deployment period. University of Rhode Island GSO Tech. Rept. No. 87–1, 142 pps.
- DelBalzo, D.R., L. Winsett, and E.R. Rike, 2003, Long-term, large-scale acoustic fluctuations in the Ulleung Basin. *J. Acoust. Soc. Am.*, *114*, 2375.
- Dickson, B., J. Meincke, I. Vassie, J. Jungclaus, and S. Østerhus, 1999, Possible predictability in overflow from the Denmark Strait, *Nature*, *397*, 243–246, [doi:10.1038/16680](https://doi.org/10.1038/16680).
- Donohue, K., P. Hamilton, K. Leaman, R. Leben, M. Prater, D.R. Watts, and E. Waddell, 2006, [Exploratory study of deepwater currents in the Gulf of Mexico](#). *Volume I: Executive summary*. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2006-073. 86 pp.
- Donohue, K., P. Hamilton, K. Leaman, R. Leben, M. Prater, D.R. Watts, and E. Waddell, 2006, [Exploratory study of deepwater currents in the Gulf of Mexico](#). *Volume II: Technical report*. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2006-074. 430 pp.
- Donohue, K., P. Hamilton, R. Leben, R. Watts, and E. Waddell, 2008, [Survey of deepwater currents in the northwestern Gulf of Mexico](#). *Volume I: Executive summary*. OCS Study MMS 2008-030, U. S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA, 73pp.
- Donohue, K., P. Hamilton, R. Leben, R. Watts, and E. Waddell, 2008, [Survey of deepwater currents in the northwestern Gulf of Mexico](#). *Volume II: Technical report*. OCS Study MMS 2008-031, U. S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA, 375pp.

- Donohue, K. A., M. A. Kennelly, and A. Cutting, 2016, Sea surface height variability in Drake Passage. *J. Atmos. and Oceanic Tech.*, *33*(4), 669–683, [doi:10.1175/JTECH-D-15-0249.1](https://doi.org/10.1175/JTECH-D-15-0249.1).
- Donohue, K. A., K. L. Tracey, D. R. Watts, M. P. Chidichimo, and T. K. Chereskin, 2016, Mean Antarctic Circumpolar Current transport measured in Drake Passage. *Geophys. Res. Lett.*, *43*(22), 11,760–11,767, [doi: 10.1002/2016GL070319](https://doi.org/10.1002/2016GL070319).
- Donohue, K. A., D. R. Watts, P. Hamilton, R. Leben, M. Kennelly, and A. Lugo-Fernandez, 2016. Gulf of Mexico Loop Current Path Variability. *Dynamics of Atmospheres and Oceans* *76*(2), 174–194. [doi: 10.1016/j.dynatmoce.2015.12.003](https://doi.org/10.1016/j.dynatmoce.2015.12.003).
- Donohue, K. A., D. R. Watts, P. Hamilton, R. Leben and M. Kennelly, 2016. Loop Current Eddy Formation and Baroclinic Instability. *Dynamics of Atmospheres and Oceans* *76*(2), 195–216. [doi: 10.1016/j.dynatmoce.2016.01.004](https://doi.org/10.1016/j.dynatmoce.2016.01.004).
- Donohue, K. A., D. R. Watts, K. L. Tracey, A. D. Greene and M. Kennelly, 2009, Mapping circulation in the Kuroshio Extension with an array of Current and Pressure recording Inverted Echo Sounders. *J. Atmos. Oceanic Technol.*, *27*, 507–527, [doi:10.1175/2009JTECHO686.1](https://doi.org/10.1175/2009JTECHO686.1).
- Donohue, K., D. R. Watts, K. Tracey, M. Wimbush, J.-H. Park, N. Bond, M. Cronin, S. Chen, B. Qui, P. Hacker, N. Hogg, S. Jayne, J. McClean, L. Rainville, H. Mitsudera, Y. Tanimoto, and S.-P. Xie, 2008, Program Studies the Kuroshio Extension, *EOS, Transactions, AGU*, *89*(17), 161–162.
- Donohue, K.A., M. Wimbush, S.M. Chiswell, and R. Lukas, 1992, Line Islands array 1985–1989 data report: Dynamic height time series, University of Rhode Island GSO Tech. Rept. No. 92–5.
- Donohue, K.A., M. Wimbush, X. Zhu, S.M. Chiswell, R. Lukas, L. Miller, and H.E. Hurlburt, 1994, Five years’ central Pacific sea level from *in situ* array, satellite altimeter, and numerical model. *Atmos.-Ocean*, *32*, 495–506.

- Duncombe Rae, C.M., S.L. Garzoli, and A.L. Gordon, 1996, The eddy field of the Southeast Atlantic Ocean: A statistical census from the Benguela sources and transports project. *J. Geophys. Res.*, *101*, 11,949–11,964, [doi:10.1029/95JC03360](https://doi.org/10.1029/95JC03360).
- Elipot, S. and L. M. Beal, 2015, Characteristics, Energetics, and Origins of Agulhas Current Meanders and Their Limited Influence on Ring Shedding. *J. Phys. Oceanogr.*, *45*(9), 2294–2314, [doi:10.1175/JPO-D-14-0254.1](https://doi.org/10.1175/JPO-D-14-0254.1).
- Enfield, D.B., M.P. Cornejo-Rodriguez, R.L. Smith, and P.A. Newberger, 1987, The equatorial source of propagating variability along the Peru coast during the 1982–1983 El Niño, *J. Geophys. Res.* *92*, 14335–14346.
- Farmer, D.M. and T.F. Duda, 2006, Internal and surface wave effects on inverted echo sounder measurements, *J. Acoust. Soc. Am.*, *119*(5 pt. 2), 3396.
- Farmer, D., Q. Li, and J.-H. Park, 2009, Internal wave observations in the South China Sea: the role of rotation and non-linearity, *Atmos-Ocean*, *47*(4), 267–280, [doi:10.3137/OC313.2009](https://doi.org/10.3137/OC313.2009).
- Fields, E., K. Tracey and D.R. Watts, 1991, Inverted echo sounder data processing report. University of Rhode Island GSO Tech. Rept. No. 91–3, 150 pps.
- Fields, E., and D.R. Watts, 1990, The SYNOP experiment: inverted echo sounder data report for May 1988 to August 1989. University of Rhode Island GSO Tech. Rept. No. 90–2, 232 pps.
- Fields, E., and D.R. Watts, 1991, The SYNOP experiment: inverted echo sounder data report for June 1989 to September 1989. University of Rhode Island GSO Tech. Rept. No. 91–2, 255 pps.
- Firing, Y. L., T. K. Chereskin, D. R. Watts, and M. R. Mazloff, 2016. Bottom pressure torque and the vorticity balance from observations in Drake Passage. *J. Geophys. Res.*, *121*(6), 4282–4302, [doi:10.1002/2016JC011682](https://doi.org/10.1002/2016JC011682).

- Firing, Y. L., T. K. Chereskin, D. R. Watts, K. L. Tracey, and C. Provost, 2014, Computation of geostrophic streamfunction, its derivatives, and error estimates from an array of CPIES in Drake Passage. *J. Atmos. and Oceanic Tech.*, *31*, 656–680, [doi:10.1175/JTECH-D-13-00142.1](https://doi.org/10.1175/JTECH-D-13-00142.1).
- Foppert, A., K. A. Donohue, and D. R. Watts, 2016, The Polar Front in Drake Passage: A composite-mean stream-coordinate view. *J. Geophys. Res.*, *121*(3), 1771–1788, [doi:10.1002/2015JC011333](https://doi.org/10.1002/2015JC011333).
- Franco, A.S., J. Harari, and A.R. de Mesquita, 1985, Some results of analyses of inverted echo sounder records from the Atlantic equatorial region. *Bol. Inst. Oceanogr. Sao-Paulo*, *33*, 213–218.
- Friedlander, A.I., K.L. Tracey and D.R. Watts, 1986, The Gulf Stream dynamics experiment: inverted echo sounder data report for the July 1982 to April 1983 deployment period. University of Rhode Island GSO Tech. Rept. No. 86-5, 107 pps.
- Garzoli, S.L., 1984a, Modes of variability of the 1983 thermocline signal. *Geophys. Res. Lett.*, *11*, 741–744, [doi:10.1029/GL011i008p00741](https://doi.org/10.1029/GL011i008p00741).
- Garzoli, S.L., 1984b, High-frequency oscillations and their correlation with the wind forcing during the first SEQUAL year. *Geophys. Res. Lett.*, *11*, 795–798, [doi:10.1029/GL011i008p00795](https://doi.org/10.1029/GL011i008p00795).
- Garzoli, S.L., 1987, Forced oscillations on the equatorial Atlantic basin during the seasonal response of the equatorial Atlantic program (1983-1984). *J. Geophys. Res.*, *92*, 5089–5100.
- Garzoli, S.L., 1992, The Atlantic North Equatorial Countercurrent: Models and observations. *J. Geophys. Res.*, *97*, 17,931–17,946, [doi:10.1029/92JC01363](https://doi.org/10.1029/92JC01363).
- Garzoli, S.L., 1993, Geostrophic velocity and transport variability in the Brazil-Malvinas confluence. *Deep-Sea Res. I*, *40*, 1379–1403, [doi:10.1016/0967-0637\(93\)90118-M](https://doi.org/10.1016/0967-0637(93)90118-M).
- Garzoli, S.L., and A. Bianchi, 1987, Time-space variability of the local dynamics of the Malvinas-Brazil confluence as revealed by inverted echo sounders. *J. Geophys. Res.*, *92*, 1914–1922, [doi:10.1029/JC092iC02p01914](https://doi.org/10.1029/JC092iC02p01914).

- Garzoli, S.L., and M.E. Clements, 1986, Indirect wind observations in the southwestern Atlantic. *J. Geophys. Res.*, *91*, 10551–10556.
- Garzoli, S. L., A. Field, W. E. Johns, and Q. Yao, 2004, North Brazil Current retroflexion and transports, *J. Geophys. Res.*, *109*, C01013, [doi:10.1029/2003JC001775](https://doi.org/10.1029/2003JC001775).
- Garzoli, S.L., A. Field, and Q. Yao, 2003, North Brazil Current rings and the variability in the latitude of the retroflexion. In *Interhemispheric Water Exchange in the Atlantic Ocean*, G.J. Goni and P. Malanotte-Rizzoli (eds.). *Elsevier Oceanography Series*, *68* (ISBN 0444512675), 357–373.
- Garzoli, S.L., and C. Giulivi, 1994, What forces the variability of the southwestern Atlantic boundary currents? *Deep-Sea Res. I*, *41*, 1527–1550, [doi:10.1016/0967-0637\(94\)90059-0](https://doi.org/10.1016/0967-0637(94)90059-0).
- Garzoli, S. L., and G. J. Goni, 2000, Combining altimeter observations and oceanographic data for ocean circulation and climate studies. IN: *Satellites, Oceanography and Society*, edited by D. Halpern, Elsevier Science B.V., 79–97.
- Garzoli, S.L., G. J. Goni, A. J. Mariano and D. B. Olson, 1997, Monitoring the upper southeastern Atlantic transports using altimeter data, *J. Mar. Res.*, *55*(3), 453-481, [doi:10.1357/0022240973224355](https://doi.org/10.1357/0022240973224355).
- Garzoli, S.L., and A.L. Gordon, 1996, Origins and variability of the Benguela Current. *J. Geophys. Res.*, *101*, 897–906, [doi:10.1029/95JC03221](https://doi.org/10.1029/95JC03221).
- Garzoli, S.L., A.L. Gordon, V.M. Kamenkovich, D. Pillsbury, and C.M. Duncombe Rae. 1996. Variability and sources of the southeastern Atlantic circulation. *J. Mar. Res.*, *54*, 1039–1071.
- Garzoli, S., and E.J. Katz, 1981, Observations of inertia-gravity waves in the Atlantic from inverted echo sounders during FGGE. *J. Phys. Oceanog.*, *11*, 1463–1473.
- Garzoli, S.L., M. Maccio, A. Martino, M. Edwards, A. Bianchi, M. Ferrario, and M. Charo, 1991, Confluence 1988–1990 data report. Lamont-Doherty Geological Observatory Rept LDGO–91–2.

- Garzoli, S.L., and S.G.H. Philander, 1985, Validation of an equatorial Atlantic simulation model using inverted echo sounder data. *J. Geophys. Res.*, *90*, 9199–9201.
- Garzoli, S.L., and P.L. Richardson, 1989, Low-frequency meandering of the Atlantic North Equatorial Countercurrent. *J. Geophys. Res.*, *94*, 2079–2090.
- Garzoli, S.L., and C. Simionato, 1990, Baroclinic instabilities and forced oscillations in the Brazil/Malvinas confluence front. *Deep-Sea Res.*, *37*, 1053–1074, [doi:10.1016/0198-0149\(90\)90110-H](https://doi.org/10.1016/0198-0149(90)90110-H).
- Greene, A. D., 2010, [Deep Variability in the Kuroshio Extension.](#), Ph.D. thesis, Graduate School of Oceanography, Univ. Rhode Island, 150 pp.
- Greene, A. D., G. G. Sutyrin, and D. R. Watts, 2009, Deep cyclogenesis by synoptic eddies interacting with a seamount. *Journal of Marine Research*, *67(3)* 305–322, [doi:10.1357/002224009789954775](https://doi.org/10.1357/002224009789954775).
- Greene, A. D., D. R. Watts, G. G. Sutyrin, and H. Sasaki, 2012, Evidence of vertical coupling between the Kuroshio Extension and topographically controlled deep eddies. *Journal of Marine Research*, *70(5)*, 719–747, [doi:10.1357/002224012806290723](https://doi.org/10.1357/002224012806290723).
- Goni, G., S. Kamholz, S. L. Garzoli, and D. B. Olson, 1996, Dynamics of the Brazil/Malvinas Confluence based on inverted echo sounders and altimetry, *J. Geophys. Res.*, *101*, 16, 273–16,289, [doi:10.1029/96JC01146](https://doi.org/10.1029/96JC01146).
- Gordon, A. L., and R. D. Susanto, 1998, Makassar Strait transport: Initial estimate based on Arlindo results. *Marine Technol. Soc. Journ.*, *32*, 34–45.
- Hallock, Z.R., 1987, Regional characteristics for interpreting inverted echo sounder (IES) observations. *J. Atmos. Oceanic Technol.*, *4*, 298–304.
- Hallock, Z.R., 1992, Objective daily maps of thermocline depth for the SYNOP eastern array. NOARL Tech. Note 259, Naval Research Lab., Stennis Space Center, MS, 54 pp.

- Hallock, Z.R., J.L. Mitchell and J.D. Thompson, 1989, Sea surface topographic variability near the New England Seamounts: an intercomparison among in situ observations, numerical simulations, and Geosat altimetry from the regional energetics experiment. *J. Geophys. Res.*, *94*, 8021–8028, [doi:10.1029/JC094iC06p08021](https://doi.org/10.1029/JC094iC06p08021).
- Hallock, Z.R., and W. Teague, 1987, Inverted echo sounder data near the New England Seamounts, 1985–1986. NORDA Technical Note No. 370, Naval Ocean Research and Development Activity, Stennis Space Center, MS, 161 pps.
- Hallock, Z.R., and W. Teague, 1993, Sea surface height fluctuations observed simultaneously with inverted echo sounders and Geosat. *J. Geophys. Res.*, *98*, 16,341–16,349.
- Hallock, Z.R., and W.J. Teague, 1995, On the meridional surface profile of the Gulf Stream at 55°W. *J. Geophys. Res.*, *100*, 13,615–13,624. [doi:10.1029/95JC00943](https://doi.org/10.1029/95JC00943).
- Hallock, Z.R., and W.J. Teague, 1996, Evidence for a North Pacific deep western boundary current. *J. Geophys. Res.*, *101*, 6617–6624, [doi:10.1029/95JC03714](https://doi.org/10.1029/95JC03714).
- Hallock, Z.R., W.J. Teague, and J.D. Thompson, 1991, A comparison of observed and modeled sea surface topographic time series near the New England Seamounts. *J. Geophys. Res.*, *96*, 12,635–12,644, [doi:10.1029/91JC01126](https://doi.org/10.1029/91JC01126).
- Hamilton, P., K. Donohue, C. Hall, R. R. Leben, H. Quian, J. Sheinbaum, and D. R. Watts, 2014, [Observations and dynamics of the Loop Current](#). OCS Study BOEM 2015-006, U. S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA, 417pp.
- Hamilton, P., J.J. Singer, E. Waddell, and K.A. Donohue, 2003, [Deepwater Observations in the Northern Gulf of Mexico from In-Situ Current Meters and PIES](#). *Final Report. Volume I: Executive Summary*. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2003-048. 14 pp.

- Hamilton, P., J.J. Singer, E. Waddell, and K.A. Donohue, 2003, [Deepwater observations in the northern Gulf of Mexico from in-situ current meters and PIES](#). *Final Report. Volume II: Technical Report. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2003-049*. 95 pp.
- He, Y., 1993, Determining the baroclinic geostrophic velocity structure with inverted echo sounders. M.S. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 135 pp.
- He, Y., D. R. Watts, and K. L. Tracey, 1998, Determining geostrophic velocity shear profiles with inverted echo sounders. *J. Geophys. Res.*, *103*, 5607-5622, [doi:10.1029/97JC03439](#).
- Hendry, R.M., D.R. Watts, and C.S. Meinen, 2002, Newfoundland Basin sea level variability from TOPEX/POSEIDON altimetry and inverted echo sounder/bottom pressure measurements. *Can. J. Rem. Sens.*, *28(4)*, 544–555.
- Heywood, K. J., J. L. Collins, C.W. Hughes and I. Vassie, 2007. On the detectability of internal tides in Drake Passage. *Deep-Sea Research I*, *54*, 1972–1984, [doi:10.1016/j.dsr.2007.08.002](#).
- Howden, S.D., 1996, Processes associated with steep meander development in the Gulf Stream near 68°W. Ph.D. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 229 pp.
- Howden, S.D, 2000, The Three-Dimensional Secondary Circulation in Developing Gulf Stream Meanders, *J. Phys. Ocean.*, *30*, 888-915.
- Howden, S.D., E. Fields, X. Qian, K.L. Tracey and D.R. Watts, 1993, IES calibration for main thermocline depth: a method using integrated XBT temperature profiles. University of Rhode Island GSO Tech. Rept. No. 93–3, 18 pp.
- Howden, S. D. and D. R. Watts, 1999, Jet streaks in the Gulf Stream, *J. Phys. Ocean.*, *29*, 1910–1924.

- Howden, S.D., D.R. Watts, K.L. Tracey, and H.T. Rossby, 1994, An acoustic telemetry system implemented for real-time monitoring of the Gulf Stream with inverted echo sounders. *J. Atmos. Oceanic Technol.*, *11*, 567–571.
- Howe, P. J., 2008, [Stream-coordinate structure and variability of the Kuroshio extension](#), M.S. Thesis, Graduate School of Oceanography, University of Rhode Island, 123pp.
- Howe, P. J., K. A. Donohue and D. R. Watts, 2009, Stream-coordinate structure and variability of the Kuroshio Extension, *Deep-Sea Res. I*, *56*(7), 1093–1116, [doi:10.1016/j.dsr.2009.03.007](#).
- James, C.E., and M. Wimbush, 1995, Inferring dynamic height variations from acoustic travel time in the Pacific Ocean. *J. Oceanogr.*, *51*, 553–569.
- James, C., M. Wimbush, and H. Ichikawa, 1994, East China Sea Kuroshio 1991–92 data report, University of Rhode Island GSO Tech. Rept. No. 94–3, 22 pp.
- Jayne S. R., N. G. Hogg, S. N. Waterman, L. Rainville, K. A. Donohue, D. R. Watts, K. L. Tracey, J. L. McClean, M. E. Maltrud, B. Qiu, S. Chen, and P. Hacker, 2009, The Kuroshio Extension and its recirculation gyres, *Deep Sea Research Part I: Oceanographic Research Papers*, *56*(12), 2088–2099, [doi:10.1016/j.dsr.2009.08.006](#).
- Jochens, A.E., 1989. Simulation of the response of an inverted echo sounder array to rings in the Gulf of Mexico. M.S. Thesis, Texas A&M University.
- Johns, W.E., T.J. Shay, J.M. Bane, and D.R. Watts, 1995, Gulf Stream structure, transport, and recirculation near 68°W. *J. Geophys. Res.*, *100*, 817–838, [doi:10.1029/94JC02497](#).
- Johns, W.E., and D.R. Watts, 1985, Gulf Stream meanders: observations on the deep currents. *J. Geophys. Res.*, *90*, 4819–4832.
- Johns, W.E., and D.R. Watts, 1986, Time scales and structure of topographic Rossby waves and meanders in the deep Gulf Stream. *J. Mar. Res.*, *44*, 267–290.

- Johns, E., D.R. Watts and H.T. Rossby, 1989, A test of geostrophy in the Gulf Stream. *J. Geophys. Res.*, *94*, 3211–3222, [doi:10.1029/JC094iC03p03211](https://doi.org/10.1029/JC094iC03p03211).
- Kakinoki, K., S. Imawaki, K. Ichikawa, S.-I. Umatani, 2007, Comparison of sea surface dynamic heights estimated from inverted echo sounder data and satellite altimeter data, *Eng. Sci. Rep., Kyushu Univ.*, *29(1)*, 13–17.
- Kakinoki, K., S. Imawaki, K. Ichikawa, S.-I. Umatani, and M. Kashima, 2008, Variations of velocity and transport associated with coastal cyclonic eddies off Shikoku, Japan estimated from moored current meter and IES data, *Rep. Res. Inst. Appl. Mech.*, *135*, 53–59.
- Kakinoki, K., S. Imawaki, H. Uchida, H. Nakamura, K. Ichikawa, S.-I. Umatani, A. Nishina, H. Ichikawa, and M. Wimbush, 2008, Variations of Kuroshio geostrophic transport south of Japan estimated from long-term IES observations, *J. Oceanogr.*, *66*, 373–384 [doi:10.1007/s10872-008-0030-4](https://doi.org/10.1007/s10872-008-0030-4).
- Kakinoki, K., S. Imawaki, H. Uchida, H. Nakamura, S.-I. Umatani, A. Nishina, H. Ichikawa, and M. Wimbush, 2006, Sea-surface dynamic height of the Kuroshio south of Japan estimated from inverted echo sounders and its error estimation, *Rep. Res. Inst. Appl. Mech.*, *130*, 11–20.
- Kanzow, T., S.A. Cunningham, D. Rayner, J.J.-M. Hirschi, W.E. Johns, M.O. Baringer, H.L. Bryden, L.M. Beal, C.S. Meinen, and J. Marotzke, 2007, Observed flow compensation associated with the MOC at 26.5°N in the Atlantic. *Science*, *317(5840)*, 938–941, [doi:10.1126/science.1141293](https://doi.org/10.1126/science.1141293).
- Kanzow, T., U. Send and M. McCartney, 2008, On the variability of the deep meridional transports in the tropical North Atlantic, *Deep Sea Research Part I: Oceanographic Research Papers*, *55*, 12, 1601–1623, [doi:10.1016/j.dsr.2008.07.011](https://doi.org/10.1016/j.dsr.2008.07.011).
- Kanzow, T., U. Send, W. Zenk, A.D. Chave, and M. Rhein, 2006, Monitoring the integrated deep meridional flow in the tropical North Atlantic: long term performance of a geostrophic array. *Deep-Sea Res., I*, *53(3)*, 528–546. [doi:doi:10.1016/j.dsr.2005.12.007](https://doi.org/10.1016/j.dsr.2005.12.007).
- Katz, E.J., 1984, A note on indirect wind speed measurements from ambient noise. *Geophys. Res. Lett.*, *11*, 726–728.

- Katz, E.J., 1984, Basin wide thermocline displacements along the equator of the Atlantic in 1983. *Geophys. Res. Lett.*, *11*, 729–732.
- Katz, E.J., 1987, Seasonal response of the sea surface to the wind in the equatorial Atlantic. *J. Geophys. Res.*, *92*, 1885–1893.
- Katz, E.J., 1987, Equatorial Kelvin waves in the Atlantic. *J. Geophys. Res.*, *92*, 1894–1898.
- Katz, E.J., 1993, An interannual study of the Atlantic North Equatorial Countercurrent. *J. Phys. Oceanogr.*, *23*, 116–123.
- Katz, E. J., 1997, Waves along the Equator in the Atlantic. *J. Phys. Oceanogr.*, *27*, 2536–2544.
- Katz, E.J., A. Busalacchi, M. Bushnell, F. Gonzalez, L. Gourdeau, M. McPhaden, and J. Picaut, 1995, A comparison of coincidental time series of the ocean surface height by satellite altimeter, mooring, and inverted echo sounder. *J. Geophys. Res.*, *100*, 25101–25108, [doi:10.1029/95JC01959](https://doi.org/10.1029/95JC01959).
- Katz, E.J., and S. Garzoli, 1982, response of the western equatorial Atlantic Ocean to an annual wind cycle. *J. Mar. Res.*, *40 suppl.*, 307–327.
- Katz, E.J., and S.L. Garzoli, 1983, Intercomparison of simultaneous inverted echo sounder measurements in the tropical Atlantic. *Tropical Ocean-Atmosphere Newsletter*, No. 17, 8–9.
- Katz, E.J., and S.L. Garzoli, 1984, Thermocline displacement across the Atlantic North Equatorial Countercurrent during 1983. *Geophys. Res. Lett.*, *11*, 737–740.
- Katz, E.J., P. Hisard, J-M Verstraete and S.L. Garzoli, 1986, Annual change of sea surface slope along the equator of the Atlantic Ocean in 1983 and 1984. *Nature*, *322*, 245–247.
- Kelly, K.A., and D.R. Watts, 1994, Monitoring Gulf Stream transport by radar altimeter and inverted echo sounders. *J. Phys. Oceanogr.*, *24*, 1080–1084.

- Kennelly, M., K. Donohue, A. Greene, K. L. Tracey, and D. R. Watts, 2008, [Inverted Echo Sounder Data Report: Kuroshio Extension System Study \(KESS\), April 2004 to July 2006](#), *GSO Technical Report, 2008-02*.
- Kennelly, M. A., K. L. Tracey and D. R. Watts, 2007, [Inverted Echo Sounder Data Processing Manual](#), *GSO Technical Report, 2007-02*.
- Kim, H.-S., 1991, An observational streamfunction in the Gulf Stream. M.S. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 126 pp.
- Kim, H.-S., 1994, An equivalent-barotropic data-assimilating model of Gulf Stream meanders. Ph.D. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 95 pp.
- Kim, H.S., K.L. Tracey, and D.R. Watts, 1988, The SYNOP pilot experiment: inverted echo sounder data report for November 1986 to March 1987. University of Rhode Island GSO Tech. Rept. No. 88-1, 66 pps.
- Kim, H.-S., and D.R. Watts, 1994, An observational streamfunction in the Gulf Stream. *J. Phys. Oceanogr.*, *24*, 2639–2657.
- Kinoshita, H., Y. Micida, H. Nishida, and H. Yoritaka, 1996, Improvement on the geoid under TOPEX/POSEIDON passes in the region south of Japan. *J. Adv. Mar. Sci. Tech. Soci.*, *2*, 31–38.
- Konda, M., H. Ichikawa, I.-S. Han, X.-H. Zhu, and K. Ichikawa, 2005, Variability of current structure due to meso-scale eddies on the bottom slope southeast of Okinawa Island. *J. Oceanogr.*, *61*, 1089–1099.
- Kontoyiannis, H., 1988, The role of the pressure field in the dynamics and energetics of the Gulf Stream at 73°W. M.S. thesis, University of Rhode Island, Narragansett, 95 pp.
- Kontoyiannis, H., 1992, Variability of the Gulf Stream path between 74°W and 70°W: Observations and quasi-geostrophic modeling of mixed instabilities, Ph.D. thesis, Graduate School of Oceanography, University of Rhode Island, 137 pp.

- Kontoyiannis, H., and D.R. Watts, 1990, Ageostrophy and pressure work in the Gulf Stream at 73°W. *J. Geophys. Res.*, *95*, 22,209–22,228.
- Kontoyiannis, H., and D.R. Watts, 1994, Observations on the variability of the Gulf Stream path between 74°W and 70°W. *J. Phys. Oceanogr.*, *24*, 1999–2013.
- Lukas, R., F. Santiago-Mandujano, F. Bingham, A. Mantyla, 2001, Cold bottom water events observed in the Hawaii Ocean Time-series: implications for vertical mixing. *Deep-Sea Res. (I Oceanogr. Res. Pap.)*, *48* 995–1021, [doi:10.1016/S0967-0637\(00\)00078-9](https://doi.org/10.1016/S0967-0637(00)00078-9).
- Li, L., and M. Wimbush, 1985, Bottom temperatures related to Gulf Stream displacement off the southeast U.S. shelf. *J. Atmos. Oceanic Technol.*, *2*, 90–94.
- Li, L., M. Wimbush and D.R. Watts, 1986, Variability of thermal structure off Georgia, winter 1978. *Continental Shelf Res.*, *6*, 561–584.
- Li, L., M. Wimbush, D.R. Watts, A.J. Brincko and T.N. Lee, 1985, Gulf Stream and wind-induced current variability on the Georgia continental shelf, winter 1978. *J. Geophys. Res.*, *90*, 3199–3210.
- Li, Q., D.M. Farmer, T.F. Duda, and S. Ramp, 2009, Acoustical measurement of nonlinear internal waves using the inverted echo sounder. *J. Atmos. Oceanic Technol.*, *26*(10), 2228–2242, [doi:10.1175/2009JTECHO652.1](https://doi.org/10.1175/2009JTECHO652.1).
- Lindstrom, S.S., X. Qian, and D.R. Watts, 1997, Vertical motion in the Gulf Stream and its relation to meanders. *J. Geophys. Res.*, *102*, 8485–8503, [doi:10.1029/96JC03498](https://doi.org/10.1029/96JC03498).
- Lindstrom, S.S., and D.R. Watts, 1994, Vertical motion in the Gulf Stream near 68°W. *J. Phys. Oceanogr.*, *24*, 2321–2333.
- Liu, Z., H. Na, H. Nakamura, A. Nishina, J.-H. Park, K. Tracey, and M. Wimbush, 2012, [Kerama Gap 2009-2011 data report](#). GSO Technical Report 12-02, University of Rhode Island, 34 pp.

- Lugo-Fernndez, A. and R. E. Green, 2011, Mapping the Intricacies of the Gulf of Mexico's Circulation, *Eos Trans. AGU*, 92(3), 21–22, [10.1029/2011EO030002](https://doi.org/10.1029/2011EO030002).
- Macrande, A., 2001, Wassermassentransport in der Dnemarkstrae, Christian-Albrechts-Universitt Kiel, Mathematisch-naturwissenschaftliche Fakultt der Christian-Albrechts-Universitt zu Kiel.
- Macrande, A., 2004, [Variability and Processes of the Denmark Strait Overflow](#), Christian-Albrechts-Universitt Kiel, Mathematisch-naturwissenschaftliche Fakultt der Christian-Albrechts-Universitt zu Kiel.
- Macrande, A., R.H. Kase, U. Send, H. Valdimarsson, and S. Jonsson, 2007, Spatial and temporal structure of the Denmark Strait overflow revealed by acoustic observations. *Ocean Dynamics*, 57, 75-89, [doi:10.1007/s10236-007-0101-x](https://doi.org/10.1007/s10236-007-0101-x).
- Macrande, A., U. Send, H. Valdimarsson, S. Jonsson, and R.H. Kase, 2005, Interannual changes in the overflow from the Nordic Seas into the Atlantic Ocean through Denmark Strait, *Geophys. Res. Lett.*, 32, L06606, [doi:10.1029/2004GL021463](https://doi.org/10.1029/2004GL021463).
- Maul, G.A., J.R. Proni, M. Bushnell and J.L. Mitchell, 1988, Oceanic dynamic height anomaly from GEOSAT: a conceptual model for short collinear orbit segments. *Marine Geodesy*, 12, 259–286.
- Maul, G.A., J.R. Proni, W.P. Dammann, C.A. Lauter, M. Bushnell and D.A. Mayer, 1986, Inverted echo sounder/pressure gauge measurements. Chapter 6, Physical Oceanographic Study of Florida's Atlantic coast region—Florida Atlantic Coast Study (FACTS). Final report, MMS Agreement No. 14-12-0001-30082: Florida Institute of Oceanography, St. Petersburg, 333–384.
- Meinen, C. S., 1998, [Transport of the North Atlantic Current](#), Ph.D. thesis, Graduate School of Oceanography, Univ. Rhode Island, 197 pp.
- Meinen, C.S., 2001, Structure of the North Atlantic Current in stream-coordinates and the circulation in the Newfoundland Basin. *Deep Sea Res.*, 48(7), 1553–1580, [doi:10.1016/S0967-0637\(00\)00103-5](https://doi.org/10.1016/S0967-0637(00)00103-5).

- Meinen, C.S., 2005, Temporal Sampling: How many sections are needed to quantify the mean transport and structure of a meandering current? *J. Atmos. Oceanic Technol.*, 22(4), 476–489.
- Meinen, C.S., 2008, Accuracy in Mooring Motion Temperature Corrections, *J. Atmos. Oceanic Technol.*, 25(12), 2293–2303, doi:10.1175/2008JTECHO555.1.
- Meinen, C.S., M.O. Baringer, and S.L. Garzoli, 2006, Variability in Deep Western Boundary Current transports: Preliminary results from 26.5°N in the Atlantic, *Geophys. Res. Lett.*, 33, L17610, doi:10.1029/2006GL026965.
- Meinen, C.S., S.L. Garzoli, W.E. Johns, and M.O. Baringer, 2004, Transport variability of the Deep Western Boundary Current and the Antilles Current off Abaco Island, Bahamas. *Deep Sea Res. I*, 51(11), 1397–1415, doi:10.1016/j.dsr.2004.07.007.
- Meinen, C.S., W. E. Johns, S. L. Garzoli, E. van Sebille, D. Rayner, T. Kanzow, and M. O. Baringer, 2013, Variability of the Deep Western Boundary Current at 26.5°N during 2004–2009, *Deep Sea Research Part II: Topical Studies in Oceanography*, 85, 154–168, doi:10.1016/j.dsr2.2012.07.036.
- Meinen, C.S., and D.S. Luther, 2002, Mooring motion when the pressure sensors fail: A method employing inverted echo sounders. *J. Atmos. Ocean. Technol.*, 19(9) 1451–1460.
- Meinen, C.S. and D.S. Luther, 2003, Comparison of methods of estimating mean synoptic current structure in “stream coordinates” reference frames with an Example from The Antarctic Circumpolar Current. *Deep Sea Res. I*, 50(2) 201–220, doi:10.1016/S0967-0637(02)00168-1.
- Meinen, C.S., D.S. Luther and M.O. Baringer, 2009, Structure, transport and potential vorticity of the Gulf Stream at 68°W: Revisiting older data sets with new techniques, *Deep Sea Research Part I: Oceanographic Research Papers*, 56, 1, 41 - 60, doi:10.1016/j.dsr.2008.07.010.

- Meinen, C.S., D.S. Luther, D.R. Watts, A.D. Chave, and K.L. Tracey, 2003, Mean stream-coordinates structure of the Subantarctic Front: Temperature, salinity, and absolute velocity. *J. Geophys. Res.*, *108*(C8), 3263, [doi:10.1029/2002JC001545](https://doi.org/10.1029/2002JC001545).
- Meinen, C.S., D.S. Luther, D.R. Watts, K.L. Tracey, A.D. Chave, and J. Richman, 2002, Combining inverted echo sounder and horizontal electric field recorder measurements to obtain absolute velocity profiles. *J. Atmos. Ocean. Technol.*, *19*(10), 1653–1664.
- Meinen, C. S., A. R. Piola, , R. C. Perez, and S. L. Garzoli, 2012, Deep Western Boundary Current transport variability in the South Atlantic: preliminary results from a pilot array at 34.5° S, *Ocean Sci.*, *8*, 1041–1054, [doi:10.5194/os-8-1041-2012](https://doi.org/10.5194/os-8-1041-2012).
- Meinen, C. S., S. Speich, R. C. Perez, S. Dong, A. R. Piola, S. L. Garzoli, M. O. Baringer, S. Gladyshev, and E. J. D. Campos, 2013, Temporal variability of the meridional overturning circulation at 34.5°S: Results from two pilot boundary arrays in the South Atlantic, *J. Geophys. Res. Oceans*, *118*, 6461–6478, [doi:10.1002/2013JC009228](https://doi.org/10.1002/2013JC009228).
- Meinen, C. S., and D. R. Watts, 1997, Further evidence that the sound-speed algorithm of Del Grosso is more accurate than that of Chen and Millero. *J. Acoust. Soc. Am.*, *102*, 2058–2062.
- Meinen, C. S., and D. R. Watts, 1998, Calibrating inverted echo sounders equipped with pressure sensors, *J. Atmos. Oceanic Technol.*, *15*, 1339–1345.
- Meinen, C. S., and D. R. Watts, 2000, Vertical structure and transport on a transect across the North Atlantic Current near 42°N: Time series and mean, *J. Geophys. Res.*, *105*, 21,869–21,892, [doi:10.1029/2000JC900097](https://doi.org/10.1029/2000JC900097).
- Meinen, C. S., D.R. Watts, and R. A. Clarke, 1999, Absolutely referenced geostrophic velocity and transport on a section across the North Atlantic Current, *Deep-Sea Res. I.*, *47*, 309–322, [doi:10.1016/S0967-0637\(99\)00061-8](https://doi.org/10.1016/S0967-0637(99)00061-8).

- Mensah, V., M. Andres, R.-C. Lien, B. Ma, C. M. Lee, and S. Jan, 2016, Combining Observations from Multiple Platforms across the Kuroshio Northeast, of Luzon: A Highlight on PIES Data. *J. Atmos. Oceanic Technol.*, *33*(10), 2185-2203, [doi:10.1175/JTECH-D-16-0095.1](https://doi.org/10.1175/JTECH-D-16-0095.1).
- Meredith, M.P., 1995, On the temporal variability of the transport through Drake Passage, Ph.D. thesis, School of Environ. Sci., Univ. of East Anglia, Norwich, England.
- Meredith, M. P., J. M. Vassie, R. Spencer, and K. J. Heywood, 1997, The processing and application of inverted echo sounder data from the Drake Passage. *J. Atmos. Oceanic Technol.*, *14*, 871–882.
- Mertens, C., M. Rhein, M. Walter and K. Kirchner, 2009, Modulation of the inflow into the Caribbean Sea by North Brazil Current Rings. *Deep-Sea Research I*, *56*(7), 1057–1076, [doi:10.1016/j.dsr.2009.03.002](https://doi.org/10.1016/j.dsr.2009.03.002).
- Miller, L., D.R. Watts and M. Wimbush, 1985, Oscillations of dynamic topography in the eastern equatorial Pacific. *J. Phys. Oceanog.*, *15*, 1759–1770.
- Mitchell, D.A., 2003, [Upper current structure and variability in the Southwestern Japan/East Sea](#), Ph.D. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 140 pp.
- Mitchell, J.L., Z.R. Hallock, and J.D. Thompson, 1987, REX and Geosat: progress in the first year. *Johns Hopkins APL Tech. Dig.*, *8*, 234–244.
- Mitchell, D.A., W.J. Teague, M. Wimbush, D.R. Watts and G.G. Sutyrin, 2005, The Dok Cold Eddy. *J. Phys. Oceanog.*, *35*, 273–288, [doi:10.1175/JPO-2684.1](https://doi.org/10.1175/JPO-2684.1).
- Mitchell, D.A., D.R. Watts, M. Wimbush, and W.J. Teague, 2001, Determining gravest empirical modes from hydrographic data in the southwest Japan/East Sea. *Proceedings of CREAMS 2001 International Symposium on Oceanography of the East Asian Marginal Seas, Honolulu, February 2001*.

- Mitchell, D.A., D.R. Watts, M. Wimbush, W.J. Teague, K.L. Tracey, J.W. Book, K.-I. Chang, M.-S. Suk, and J.-H. Yoon, 2005, Upper circulation patterns in the Ulleung Basin. *Deep-Sea Res. II*, 52, 1617–1638, [doi:10.1016/j.dsr2.2003.09.005](https://doi.org/10.1016/j.dsr2.2003.09.005).
- Mitchell, D.A., M. Wimbush, D.R. Watts, G. Sutyrin and W.J. Teague, 2004, The Residual GEM technique and its application to the southwestern Japan/East Sea. *J. Atmos. Ocean. Technol.*, 21, 1895–1909.
- Mitchell, D.A., Y. Xu, K.L. Tracey, D.R. Watts, M. Wimbush, and W. Teague, 2004, [Inverted echo sounder data report: Ulleung Basin of Japan/East Sea, June 1999 to July 2001](#), *GSO Technical Report 2004-02*.
- Mitchum, G.T., 1996, On using satellite altimetric heights to provide a spatial context for the Hawaii Ocean Time-series measurements. *Deep Sea Res. II*, 43, 257–280, [doi:10.1016/0967-0645\(95\)00091-7](https://doi.org/10.1016/0967-0645(95)00091-7).
- Na, H., J.-H. Park, D. R. Watts, K. Donohue, and H. J. Lee, 2012, Near 13-day barotropic ocean response to the atmospheric forcing in the North Pacific, *J. Geophys. Res.*, 117(C12019), [doi:10.1029/2012JC008211](https://doi.org/10.1029/2012JC008211).
- Na, H., M. Wimbush, J.-H. Park, H. Nakamura, and A. Nishina. 2014, Observations of flow variability through the Kerama Gap between the East China Sea and the northwestern Pacific. *J. Geophys. Res., Oceans*, 119(2), 689–703, [doi:10.1002/2013JC008899](https://doi.org/10.1002/2013JC008899).
- Nakamura, H., 1999, A comparison of variation in sound travel time by IES with variation in sea surface height by satellite altimeter, *Kuroshio no Kaihatsu Riyo Chosa Kenkyu Seika Hokokusho*, 1997, 88–94. (Language: Japanese)
- Nakamura, H., A. Nishina, Z. Liu, F. Tanaka, M. Wimbush, and J.-H. Park, 2013 Intermediate and deep water formation in the Okinawa Trough, *J. Geophys. Res., Oceans*, 118(12), 6881–6893, [doi:10.1002/2013JC009326](https://doi.org/10.1002/2013JC009326).
- Nam, S.-H., S.-J. Lyu, Y.-H. Kim, J.-H. Park, and D.R. Watts, 2004, Correction of TOPEX/Poseidon altimeter data for nonisostatic sea level response to atmospheric pressure in the Japan/East Sea, *Geophys. Res. Lett.*, 31, [doi:10.1029/2003GL018487](https://doi.org/10.1029/2003GL018487).

- Park, J.-H., M. Andres, P.J. Martin, M. Wimbush and D.R. Watts, 2005, Second-mode internal tides in the East China Sea from historical hydrocasts and model. *The Indonesia Forum 2005 and the 13th PAMS/IECS Workshop, Bali, Indonesia, July 2005, Proceedings, 77–78 & CD-ROM.*
- Park, J.-H., M. Andres, P.J. Martin, M. Wimbush and D.R. Watts, 2006, Second-mode internal tides in the East China Sea deduced from historical hydrocasts and a model, *Geophys. Res. Lett.*, *33*, L05602, [doi:10.1029/2005GL024732](https://doi.org/10.1029/2005GL024732).
- Park, J.-H., K. A. Donohue, D. R. Watts, and L. Rainville, 2010, Distribution of deep near-inertial waves observed in the Kuroshio Extension, *Journal of Oceanography*, *66*(5), 709–717, [doi: 10.1007/s10872-010-0058-0](https://doi.org/10.1007/s10872-010-0058-0).
- Park, J.-H. and D. Farmer, 2013, Effects of Kuroshio intrusions on nonlinear internal waves in the South China Sea during winter, *J. Geophys. Res. Oceans*, *118*, 7081–7094, [doi:10.1002/2013JC008983](https://doi.org/10.1002/2013JC008983).
- Park, J.-H. and D.R. Watts, 2005, Near-inertial oscillations interacting with mesoscale circulation in the southwestern Japan/East Sea. *Geophys. Res. Lett.*, *32*, L10611, [doi:10.1029/2005GL022936](https://doi.org/10.1029/2005GL022936).
- Park, J.-H. and D.R. Watts, 2005, Response of the southwestern Japan/East Sea to atmospheric pressure. *Deep Sea Res. II*, *52*, 1671–1683, [doi:10.1016/j.dsr2.2003.08.007](https://doi.org/10.1016/j.dsr2.2003.08.007).
- Park, J.-H. and D.R. Watts, 2006, Internal tides in the southwestern Japan/East Sea, *J. Phys. Oceanogr.*, *36*, 22–34, [doi:10.1175/JPO2846.1](https://doi.org/10.1175/JPO2846.1).
- Park, J.-H. and D.R. Watts, 2006, Near 5-day nonisostatic response of the Atlantic Ocean to atmospheric surface pressure deduced from sub-surface and bottom pressure measurements, *Geophys. Res. Lett.*, *33*, L12610, [doi:10.1029/2006GL026304](https://doi.org/10.1029/2006GL026304).

- Park, J.-H., D. R. Watts, K. A. Donohue, and S. R. Jayne, 2008, A comparison of in situ bottom pressure array measurements with GRACE estimates in the Kuroshio Extension, *Geophys. Res. Lett.*, *35*, L17601, [doi:10.1029/2008GL034778](https://doi.org/10.1029/2008GL034778).
- Park, J.-H., D. R. Watts, K. A. Donohue, and K. L. Tracey, 2012, Comparisons of sea surface height variability observed by pressure-recording inverted echo sounders and satellite altimetry in the Kuroshio Extension, *J. Oceanogr.*, *68*, 401–416,. [doi:10.1007/s10872-012-0108-x](https://doi.org/10.1007/s10872-012-0108-x).
- Park, J.-H., D.R. Watts, K. L. Tracey, and D. A. Mitchell, 2005, A multi-index GEM technique and its application to the southwestern Japan/East Sea, *J. Atmos. Oceanic Technol.*, *22*, 1282–1293.
- Park, J.-H., D.R. Watts, M. Wimbush, J.W. Book, K. L. Tracey, and Y. Xu, 2006, Rapid variability and its links to mesoscale circulation in the Japan/East Sea: basin oscillations, internal tides, and near-inertial oscillations, *Oceanography*, *19*, 76–85.
- Philander, G., D. Halpern, D. Hansen, R. Legeckis, L. Miller, C. Paul, R. Watts, R. Weisberg and M. Wimbush, 1985, Long waves in the equatorial Pacific Ocean. *EOS*, *66*, 154.
- Pickart, R.S., 1994, Interaction of the Gulf Stream and deep western boundary current where they cross. *J. Geophys. Res.*, *99*, 22,155–22,164, [doi:10.1029/94JC02217](https://doi.org/10.1029/94JC02217).
- Pickart, R.S., 1995, Gulf Stream-generated topographic Rossby waves. *J. Phys. Oceanogr.*, *25*, 574–586.
- Pickart, R.S., and D.R. Watts, 1990, Using the inverted echo sounder to measure vertical profiles of Gulf Stream temperature and geostrophic velocity. *J. Atmos. Oceanic Technol.*, *7*, 146–156.
- Pickart, R.S., and D.R. Watts, 1990, Deep western boundary current variability at Cape Hatteras. *J. Mar. Res.*, *48*, 765–791.
- Pickart, R.S., and D.R. Watts, 1993, Gulf Stream meanders over steep topography. *J. Geophys. Res.*, *98*, 6895–6905, [doi:10.1029/92JC02792](https://doi.org/10.1029/92JC02792).

- Qian, X., K.L. Tracey, E. Fields and D.R. Watts, 1990, The SYNOP experiment: inverted echo sounder data report for October 1987 to May 1988. University of Rhode Island GSO Tech. Rept. No. 90-3, 156 pps.
- Qian, X., and D.R. Watts, 1992, The SYNOP experiment: Bottom pressure maps from the Central Array May 1988 to August 1990. Tech. Rep. 92-3, Graduate School of Oceanography, University of Rhode Island, Narragansett, 187 pp.
- Ray, R. D., and D. A. Byrne, 2010, Bottom pressure tides along a line in the southeast Atlantic Ocean and comparisons with satellite altimetry. *Ocean Dynamics*, 60, 1167–1176, [doi:10.1007/s10236-010-0316-0](https://doi.org/10.1007/s10236-010-0316-0).
- Roessler, A., M. Rhein, D. Kieke, and C. Mertens, 2015, Long-term observations of North Atlantic Current transport at the gateway between western and eastern Atlantic, *J. Geophys. Res. Oceans*, 120, 4003–402, [doi:10.1002/2014JC010](https://doi.org/10.1002/2014JC010).
- Rossby, T., 1969, On monitoring depth variations of the main thermocline acoustically. *J. Geophys. Res.*, 74, 5542–5546.
- Rossby, T., 1973, Inverted echo sounder: a description and some results from MODE-I. *MODE Hot Line News*, 41, 1–3.
- Santos, J., M. Wimbush, T.N. Lee, L.J. Pietrafesa, 1989, Gulf Stream and wind induced current variability on the northeastern Florida continental shelf. *Continental Shelf Res.*, 10, 203–224.
- Savidge, D. K., 1997, Cyclogenesis in the deep Atlantic associated with Gulf Stream trough formation. Ph.D. thesis, University of North Carolina, 73 pp.
- Savidge, D. K., and J. M. Bane Jr., 1999, Cyclogenesis in the deep ocean beneath the Gulf Stream 1. Description, *J. Geophys. Res.*, 104(C8), 18,111–18,126.
- Savidge, D. K., and J. M. Bane Jr., 1999, Cyclogenesis in the deep ocean beneath the Gulf Stream 2. Dynamics, *J. Geophys. Res.*, 104(C8), 18,127–18,140, [doi:10.1029/1999JC900132](https://doi.org/10.1029/1999JC900132).

- Science Applications International Corporation, 1989, Gulf of Mexico Physical Oceanography Program, Final Report: Year 5. Volume II: Technical Report. OCS Report/MMS – 89 – 0068, U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Regional Office, New Orleans, LA, 333 pp.
- Send, U., L. Regier, and B. Jones, 2013:, Use of Underwater Gliders for Acoustic Data Retrieval from Subsurface Oceanographic Instrumentation and Bidirectional Communication in the Deep Ocean, *J. Atmos. Oceanic Technol.*, *30*, 984–998. doi: [10.1175/JTECH-D-11-00169.1](https://doi.org/10.1175/JTECH-D-11-00169.1).
- Shay, T.J., J.M. Bane, D.R. Watts, and K.L. Tracey, 1995, Gulf Stream flow field and events near 68°W. *J. Geophys. Res.*, *100*, 22,565–22,589, doi:[10.1029/95JC02685](https://doi.org/10.1029/95JC02685).
- Spenser, R., and P. Foden, 1996, Data from the deep ocean via releasable data capsules. *Sea Technology*, February 1996, 10–14. (Not IES; bottom pressure).
- Spencer, R., P.R. Foden, C. McGarry, A.J. Harrison, J.M. Vassie, T.F. Baker, M.J. Smithson, S.A. Harangozo, and P.L. Woodworth, 1993, The ACCLAIM programme in the South Atlantic and southern oceans. *Int. Hydrogr. Rev.*, *70*, 7–21.
- Spencer, R., P.R. Foden, and J.M. Vassie, 1994, Development of a multiyear deep sea bottom pressure recorder, in *Sixth International Conference on Electronic Engineering in Oceanography*, edited by B.S. McCartney et al., pp. 175–180, Inst. of Electr. Eng., London. (Not IES; Bottom pressure)
- Stein, R. 2005, Scientific Cruise Report of the Arctic Expedition ARK-XX/3 of RV "Polarstern" in 2004: Fram Strait, Yermak Plateau and East Greenland Continental Margin, *Ber. Polar Meeresforsch./Rep. Polar Mar. Res.*, *517*, 188.
- Takeuchi, T., A. Kubo, Y Nagai, K. Taira and S. Kitagawa, 1993, Acoustical method for measurement of mean ocean volume flow. *J. Acoustical Soc. Japan*, *49*, 543–550.

- Takeuchi, T., and K. Taira, 1993, Development of multipaths inverted echosounder, in *Deep Ocean Circulation Physical and Chemical Aspects*, edited by T. Teramoto, pp. 375–382, Elsevier Oceanographic Series 59, Amsterdam, The Netherlands.
- Takeuchi, T., and K. Taira, 1993, Measurement of vertically average ocean current velocity using multipath inverted echosounders, In *Recent advances in Marine Science and Technology*, 92, edited by N. Saxena, PACON International, Honolulu, Hawaii, 35–46.
- Teague, W.J., and Z.R. Hallock, 1986, Deployment and recovery procedures for inverted echo sounders. Naval Ocean Research and Development Activity, Stennis Space Center, MS, NORDA Technical Note 366, 10 pp.
- Teague, W.J., and Z.R. Hallock, 1990, Gulf Stream path analysis near the New England Seamounts. *J. Geophys. Res.*, 95, 1647–1662, [doi:10.1029/JC095iC02p01647](https://doi.org/10.1029/JC095iC02p01647).
- Teague, W.J. and Z.R. Hallock, 1995, Inverted echo sounder observations during the Kuroshio Extension Regional Experiment, NRL/MR/7332–95-7591, 61 pp., [Available from Naval Research Laboratory, Stennis Space Center, MS 39529-5004].
- Teague, W.J., Z.R. Hallock, and G.A. Jacobs, 1997, Estimation of a geoid section across the Kuroshio, *J. Atmos. Oceanic Technol.*, 14, 326–330.
- Teague, W.J., Z.R. Hallock, G.A. Jacobs, and J.L. Mitchell, 1994, Steric effects in comparisons of inverted echo sounders and TOPEX/POSEIDON, *TOPEX/POSEIDON Research News*, Issue 3, October, 1994, 4–11.
- Teague, W.J., Z.R. Hallock, G.A. Jacobs, and J.L. Mitchell, 1995, Kuroshio sea surface height fluctuations observed simultaneously with inverted echo sounders and TOPEX/POSEIDON. *J. Geophys. Res.*, 100, 24,987–24,994.
- Teague, W.J., Z.R. Hallock, G.C. Romero, and J.M. Dastugue, 1989, Inverted echo sounder data near 55° West 1987–1988. Naval Ocean Research and Development Activity, Stennis Space Center, MS, NORDA Technical Note 462, 118 pp.

- Teague, W.J., G.A. Jacobs, D.A. Mitchell, M. Wimbush and D.R. Watts., 2004, Decadal current variations in the southwestern Japan/East Sea. *J. Oceanog.*, 60, 1023–1033, [doi:10.1007/s10872-005-0010-x](https://doi.org/10.1007/s10872-005-0010-x).
- Teague, W.J., K.L. Tracey, D.R. Watts, J.W. Book, K.-I. Chang, P.J. Hogan, D.A. Mitchell, M.-S. Suk, M. Wimbush and J.-H. Yoon, 2005, Observed deep circulation in the Ulleung Basin,. *Deep-Sea Res. II*, 52, 1802–1826, [doi:10.1016/j.dsr2.2003.10.014](https://doi.org/10.1016/j.dsr2.2003.10.014).
- Tracey, K.L., and D.R. Watts, 1986, The Gulf Stream dynamics experiment: inverted echo sounder data report for the April 1983 to June 1984 deployment period. University of Rhode Island GSO Tech. Rept. No. 86–4, 236 pps.
- Tracey, K.L., M. Cronin and D.R. Watts, 1985, The Gulf Stream dynamics experiment: inverted echo sounder data report for the June 1984 to May 1985 deployment period. University of Rhode Island GSO Tech. Rept. No. 85-3, 185 pps.
- Tracey, K.L., A.I. Friedlander, and D.R. Watts, 1987, Objective analysis of the Gulf Stream thermal front: methods and accuracy report. University of Rhode Island GSO Tech. Rept. No. 87–2, 112 pps.
- Tracey, K.L., S.D. Howden and D.R. Watts, 1997, IES calibration and mapping procedures. *J. Atmos. Oceanic Technol.*, 14, 1483–1493.
- Tracey, K.L., C.S. Meinen, and D.R. Watts, 1996, North Atlantic Current Inverted Echo Sounder data report for August 1993 – July 1995. *GSO Technical Report 96-7*.
- Tracey, K.L., and D.R. Watts, 1986, On Gulf Stream meander characteristics near Cape Hatteras. *J. Geophys. Res.*, 91, 7587–7602.
- Tracey, K.L., and D.R. Watts, 1991, The SYNOP experiment: thermocline depth maps for the central array October 1987 to August 1990. University of Rhode Island GSO Tech. Rept. No. 91–5, 193 pps.
- Tracey, K.L., and D.R. Watts, 1991, The SYNOP experiment: thermocline depth maps for the inlet array October 1987 to August 1990. University of Rhode Island GSO Tech. Rept. No. 91–6, 137 pps.

- Tracey, K. L., D. R. Watts, K. A. Donohue and H. Ichikawa, 2012, Propagation of Kuroshio Extension meanders between 143° and 149°E, *J. Phys. Oceanogr.*, *42*, 581–601, [doi:10.1175/JPO-D-11-0138.1](https://doi.org/10.1175/JPO-D-11-0138.1).
- Tracey, K.L., D.R. Watts, C.S. Meinen, and D.S. Luther, 2006, Synoptic maps of temperature and velocity within the Subantarctic Front south of Australia. *J. Geophys. Res.*, *111*, C10016, [doi:10.1029/2005JC002905](https://doi.org/10.1029/2005JC002905).
- Trivers, G., 1992, Regional characteristics of acoustic travel time interpretations in the North Atlantic. M.S. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett.
- Trivers, G., and M. Wimbush, 1994, Using acoustic travel time to determine dynamic height variations in the North Atlantic Ocean, *J. Atmos. Oceanic Technol.*, *11*, 1309–1316.
- Tsai, C.-J., M. Andres, J., Sen, V. Mensah, T. B. Sanford, R.-C. Lien, and C. M. Lee, 2015, Eddy-Kuroshio interaction processes revealed by mooring observations off Taiwan and Luzon, *Geophys. Res. Lett.*, *42*(19), 8098–8105. [doi: 10.1002/2015GL065814](https://doi.org/10.1002/2015GL065814).
- Umatani, S.-I. and K. Kakinoki, 2008, Barotropic and baroclinic volume transports of the Kuroshio estimated by IES measurements, *Rep. Res. Inst. Appl. Mech.*, *135*, 33–35.
- Vazquez, J., and D.R. Watts, 1985, Observations on the propagation, growth, and predictability of Gulf Stream meanders. *J. Geophys. Res.*, *90*, 7143–7151.
- Watts, D.R., 1974, Inverted echo sounders. *Instrument Description and Intercomparison Report of the MODE-I Intecomparison Group*, The MODE Executive Office, 54-1417, M.I.T., 173 pps.
- Watts, D.R., 1976, Inverted echo sounders monitoring the Gulf Stream. *POLY-MODE Hot Line News*, *4*, 1–3.
- Watts, D.R., 1977, Inverted echo sounders. In *Atlas of the Mid-Ocean Dynamics Experiment (MODE-I)*, V. Lee and C. Wunsch, eds., MIT Press, 159–160.

- Watts, D.R., 1977, Geostrophic comparisons using dynamic heights from IES and stream function from floats and current meters. In *Atlas of the Mid-Ocean Dynamics Experiment (MODE-I)*, V. Lee and C. Wunsch, eds., MIT Press, 170.
- Watts, D.R., 1983, Gulf Stream variability. In *Eddies in Marine Science*, A. Robinson, ed., Springer-Verlag, 114–144.
- Watts, D.R., and W.E. Johns, 1982, Gulf Stream meanders: observations on propagation and growth. *J. Geophys. Res.*, *87*, 9467–9476.
- Watts, D.R., and H. Kontoyiannis, 1986, Deep-ocean bottom pressure and temperature sensors report: methods and data. University of Rhode Island GSO Tech. Rept. No. 86–8, 121 pps.
- Watts, D.R., and H. Kontoyiannis, 1990, Deep-ocean bottom pressure measurement: drift removal and performance. *J. Atmos. Ocean. Technol.*, *7*, 296–306.
- Watts, D.R., and D.B. Olson, 1978, Gulf Stream ring coalescence with the Gulf Stream off Cape Hatteras. *Science*, *202*, 971–972.
- Watts, D.R., X. Qian, and K. L. Tracey. 2001. On mapping abyssal current and pressure fields under the meandering Gulf Stream. *J. Atmos. Oceanic Technol.*, *18*, 1052–1067.
- Watts, D.R., and H.T. Rossby, 1977, Measuring dynamic heights with inverted echo sounders: results from MODE. *J. Phys. Oceanogr.*, *7*, 345–358.
- Watts, D.R., C. Sun, S. Rintoul, 2001, A two-dimensional gravest empirical mode determined from hydrographic observations in the Subantarctic Front. *J. Phys. Oceanogr.*, *31* 2186–2209.
- Watts, D.R., and K.L. Tracey, 1985, Objective analysis of the Gulf Stream thermal front from inverted echo sounders. *Gulf Stream Workshop Proceedings, II*, 525–548, University of Rhode Island.

- Watts, D.R., K.L. Tracey, J.M. Bane, and T.J. Shay, 1995, Gulf Stream path and thermocline structure near 74°W and 68°W. *J. Geophys. Res.*, 100, 18,291–18,312, [doi:10.1029/95JC01850](https://doi.org/10.1029/95JC01850).
- Watts, D.R., K.L. Tracey, and A.I. Friedlander, 1989, Producing accurate maps of the Gulf Stream thermal front using objective analysis. *J. Geophys. Res.* 94, 8040–8052, [doi:10.1029/JC094iC06p08040](https://doi.org/10.1029/JC094iC06p08040).
- Watts, D.R., and M. Wimbush, 1981, Sea surface height and thermocline depth variations measured from the sea floor. *International Symposium on Acoustic Remote Sensing of the Atmosphere and Oceans, Proceedings, III*, 33-47. Calgary.
- Watts, D.R., M. Wimbush, K.L. Tracey, W.J. Teague, J.-H. Park, D.A. Mitchell, J.-H. Yoon, m.-S. Suk, and K.I. Chang, 2006, Currents, eddies, and a "fish story" in the southwestern Japan/East Sea, *Oceanography*, 19, 64–75.
- Waworuntu, J.M., S.L. Garzoli, and D.B. Olson, 2001, Dynamics of the Makassar Strait. *J. Mar. Res.*, 59(2), 313–325.
- Wimbush, M., 1989, Inverted echo sounders: results from the central Pacific. *U.S. TOGA Ocean Observing System Mid-Life Progress Review and Recommendations for Continuation 1990–1995, Workshop Report*, C-68–C-71, Honolulu.
- Wimbush, M., 1990, Inferring sea level variation from acoustic travel time and bottom pressure measurements, In: Towards an integrated system for measuring long term changes in global sea level; Report of a workshop held at Woods Hole Oceanographic Institution, H.F. Eden, ed., JOI Inc., 147–153.
- Wimbush, M., S.M. Chiswell, R. Lukas, K.A. Donohue, 1990, Inverted echo sounder measurement of dynamic height through an ENSO cycle in the central equatorial Pacific. *IEEE J. Oceanic Technol.*, 15, 380–383.

- Wimbush, M., H. Ichikawa, J. Book, H. Uchida, and H. Kinoshita, 1997, Separating barotropic and baroclinic sea-surface height components in the ASUKA region, by combining altimeter and inverted echo sounder measurements. *Symposium on Ocean-Earth Dynamics and Satellite Altimetry, Tokyo, Proceedings*, 33–50.
- Winn, C., S. Chiswell, E. Firing, D. Karl and R. Lukas, 1992, Hawaii Ocean Time-series Program Data Report 2, 1990. SOEST Tech. Rept. 92–1, School of Ocean and Earth Science and Technology, Univ. of Hawaii, Honolulu, HI, 175 pp.
- Woodworth, P.L., J.M. Vassie, C.W. Hughes, and M.P. Meredith, 1996, A test of the ability of TOPEX/POSEIDON to monitor flows through the Drake Passage. *J. Geophys. Res.*, *101*, 11,935–11,947, [doi:10.1029/96JC00350](https://doi.org/10.1029/96JC00350).
- Xu, Y., 2006, [Analyses of sea surface height, bottom pressure and acoustic travel time in the Japan/East Sea](#). Ph.D. thesis, Graduate School of Oceanography, University of Rhode Island, Narragansett, 86 pp.
- Xu, Y., D.R. Watts, and M. Wimbush, 2009, Coupled patterns between fields of dynamic height and bottom pressure in the Japan/East Sea. *Ocean Science Journal*, *44*, 1, 35-44, [doi:10.1007/s12601-009-0005-4](https://doi.org/10.1007/s12601-009-0005-4).
- Xu, Y., D.R. Watts, M. Wimbush, and J.-H. Park, 2007, Fundamental-mode oscillations in the Japan/East Sea, *Geophys. Res. Lett.*, *34*, [doi:10.1029/2006GL028755](https://doi.org/10.1029/2006GL028755).
- Yu, Z., E. J. Metzger, P. Thoppil, H.E. Hurlburt, L. Zamudio, O. M. Smedstad, H. Na, H. Narkamura, and J.-H. Park, 2015, *Ocean Modeling*, *96(2)*, 203–213, [10.1016/j.ocemod.2015.10.012](https://doi.org/10.1016/j.ocemod.2015.10.012).
- Zamorski, S.E., 2012, [Kuroshio Extension meanders: model data-intercomparison](#), M.S. Thesis, Graduate School of Oceanography, Univ. Rhode Island, 65pp.
- Zhu, X.-H., I.-S. Han, J.-H. Park, H. Ichikawa, K. Murakami, A. Kaneko, A. Ostrovskii, 2003, The Northeastward current southeast of Okinawa Island observed during November 2000 to August 2001. *Geophys. Res. Lett.*, *30*, [doi:10.1029/2002GL015867](https://doi.org/10.1029/2002GL015867).

- Zhu, X.-H., H. Ichikawa, K. Ichikawa, and K. Takeuchi, 2004, Volume transport variability southeast of Okinawa Island estimated from satellite altimeter data. *J. Oceanogr.*, 60, 953–962, doi: [10.1007/s10872-005-0004-8](https://doi.org/10.1007/s10872-005-0004-8).
- Zhu, X.-H., J.-H. Park, and D.-J. Huang, 2008, Observation of baroclinic eddies southeast of Okinawa Island. *Science in China* 51(12), 1802–1812, doi:[10.1007/s11430-008-0146-9](https://doi.org/10.1007/s11430-008-0146-9).
- Zhu, X.-H., J.-H. Park, A. Kaneko, A. Ostrovskii, K. Takeuchi, T. Yamagata, N. Gohda, S.-I. Umatani, M. Konda, A. Isobe, K. Ichikawa, H. Ichikawa, I.-S. Han, et al., 2001, Japan Coastal Ocean Predictability Experiment (J-COPE) - Preliminary experiment at PN line West of Amami-Oshima. *Report of Japan Marine Science and Technology Center*, 91–100.
- Zhu, X.-H., R. Zhao, X. Guo, Y. Long, Y.-L. Ma, and X Fan, 2015, A long-term volume transport time series estimated by combining in situ observation and satellite altimeter data in the northern South China Sea, *J. Oceanogr.*, doi:[10.1007/s10872-015-0305-5](https://doi.org/10.1007/s10872-015-0305-5).