

## Stephen C. Riser

### Refereed Publications

1. Riser, S.C., H.T. Rossby, and H.J. Freeland (1978) Mesoscale motions near the deep western boundary of the N. Atlantic. *Deep-Sea Research*, **25**, 1179-1191.
2. Riser, S.C. (1982) The quasi-Lagrangian nature of SOFAR floats. *Deep-Sea Research*, **29**, 1587-1602.
3. Riser, S.C. and H.T. Rossby (1983) Quasi-Lagrangian structure and variability of the subtropical western North Atlantic circulation. *Journal of Marine Research*, **41**, 127–162.
4. Rossby, H.T., S.C. Riser and A. J. Mariano (1983) The western North Atlantic – a Lagrangian viewpoint. In: *Eddies in Marine Science*, A. Robinson (ed.), Springer-Verlag, Berlin Heidelberg , pp. 66-91.
5. McWilliams, J.C., E.D. Brown, H.L. Bryden, C.C. Ebbesmeyer, B.A. Elliot, R.H. Heinmiller, B.L.Hua, K.D. Leaman, E.J. Lindstrom, J.R. Luyten, S.E. McDowell, W.B. Owens, H. Perkins, J.F. Price, L. Regier, S.C. Riser, H.T. Rossby, T.B. Sanford, C.Y. Shen, B.A. Taft, and J.C. Van Leer. (1983) The local dynamics of eddies in the western North Atlantic. In: *Eddies in Marine Science*, A.R. Robinson (ed.), Springer-Verlag, Berlin Heidelberg, pp. 92-113.
6. Ebbesmeyer, C.C., B.A. Taft, J.C. McWilliams, C. Shen, S.C. Riser, H.T. Rossby, P.E. Biscaye, and H.G. Ostlund (1986) Detection, structure, and origin of extreme anomalies in a western N. Atlantic oceanographic section. *Journal of Physical Oceanography*, **16**, 591-612.
7. Riser, S.C., W.B. Owens, H.T. Rossby, and C.C. Ebbesmeyer (1986) The structure, dynamics, and origin of a small-scale lens of water in the western N. Atlantic thermocline. *Journal of Physical Oceanography*, **16**, 572-590.
8. Holloway, G., S.C. Riser, and D. Ramsden (1986) Tracer anomaly evolution in the flow field of an isolated eddy. *Dynamics of Atmospheres and Oceans*, **10**, 165-184.
9. Hautala, S.L. and S.C. Riser (1989) A simple model of abyssal circulation, including effects of wind, buoyancy, and topography. *Journal of Physical Oceanography*, **19**, 596-611.
10. Lozier, M.S. and S.C. Riser (1989) Potential vorticity dynamics of boundary currents in a quasi-geostrophic ocean. *Journal of Physical Oceanography*, **19**, 1373-1396.
11. Lozier, M.S. and S.C. Riser (1990) Potential vorticity sources and sinks in a quasi-geostrophic ocean: beyond western boundary currents. *Journal of Physical Oceanography*, **20**, 1608-1627.
12. Hautala, S.L. and S.C. Riser (1993) A nonconservative beta-spiral determination of the deep circulation in the eastern South Pacific. *Journal of Physical Oceanography*, **23**, 1975-2000.
13. Swift, D.D and S.C. Riser (1994) RAFOS floats: defining and targeting surfaces of neutral buoyancy. *Journal of Atmospheric and Oceanic Technology*, **11**, 1079-1092.
14. Riser, S.C., M. Warner, and G. Yurasov (1999) Circulation and mixing of water masses of Tatar Strait and the northwestern boundary region of the Japan Sea. *Journal of Oceanography*, **55**, 133-156.
15. Gladyshev, S., S. Martin, S. Riser, and A. Figurkin (2000) Dense water production on the northern Okhotsk shelves: comparison of ship-based spring-summer observations for 1996 and 1997 with satellite observations. *Journal of Geophysical Research*, **105**, 26281-26299.
16. Straneo, F. M. Kawase, and S. Riser (2002) Idealized models of slantwise convection in baroclinic flow. *Journal of Physical Oceanography*, **32**, 558-572.

17. Talley, L., V. Lobanov, A. Salyuk, and S. Riser (2003) Deep convection and brine rejection in the Japan Sea. *Geophysical Research Letters*, **30** (4), 1159, doi:10.1029/2002GLO16451, 2003.
18. Ohshima, K., M. Itoh, Y. Fukamachi, and S. Riser (2004) Sverdrup balance and the cyclonic gyre in the Sea of Okhotsk. *Journal of Physical Oceanography*, **34**, 513-525.
19. Johnson, G., P. Stabeno, and S. Riser (2004) The Bering Slope Current system revisited. *Journal of Physical Oceanography*, **32**, 558-572.
20. Kwon, Y-O and S.C. Riser (2004) Variability of subtropical mode water in the N. Atlantic: a history of ocean-atmosphere interaction 1961-2000. *Geophysical Research Letters*, **31**, L19307.
21. Ohshima, K., D. Simizu, M. Itoh, G. Mizuta, Y. Fukamachi, S. Riser, and M. Wakatsuchi (2004) Sverdrup balance and the cyclonic gyre in the Sea of Okhotsk. *Journal of Physical Oceanography*, **34**, 513-525.
22. Roemmich, D., S. Riser, R. Davis, and Y. Desaubies (2004) Autonomous profiling floats—workhorses for broad-scale observations. *Marine Technology Society Journal*, **38**, 21-29.
23. Fukamachi, Y., G. Mizuta, K. Ohshima, L. Talley, S. Riser, and M. Wakatsuchi (2004) Transport and modification processes of dense shelf water revealed from long-term moorings of Sakhalin in the Sea of Okhotsk. *Journal of Geophysical Research-Oceans*, **109**, doi:10.1029/2003JC001906.
24. Kwon, Y-O and S.C. Riser (2005) General circulation of the western subtropical N. Atlantic observed using profiling floats. *Journal of Geophysical Research*, **110**, C10012.
25. Ohshima, K., S. Riser, and M. Wakatsuchi (2005) Mixed layer evolution in the Sea of Okhotsk observed with profiling floats and its relation to sea ice formation. *Geophysical Research Letters*, **32**, L06607.
26. Riser, S.C. and G. Jacobs (2005) The Japan/East Sea: a historical and scientific introduction. *Deep-Sea Research II*, **52**, 1359-1362.
27. Park, J.J., K. Kim, B. King, and S. Riser (2005) An advanced method to estimate deep currents from profiling floats. *Journal of Atmospheric and Oceanic Technology*, **22**, 1294-1304.
28. Peng, G., E. Chassignet, Y-O Kwon, and S. Riser (2006) Investigation of variability of the N. Atlantic subtropical mode water using profiling float data and numerical model output. *Ocean Modelling*, **13**, 65-85.
29. Korotaev, G., T. Oguz, and S. Riser (2006) Intermediate and deep currents of the Black Sea obtained from autonomous profiling floats. *Deep-Sea Research II*, **53**, 1901-1910.
30. Danchenkov, M., V. Lobanov, S. Riser, K. Kim, and J-H Yoon (2006) A history of the physical oceanography of the Japan/East Sea. *Oceanography*, **19**, 18-31.
31. Roemmich, D., J. Gilson, R. Davis, P. Sutton, S. Wijffels, and S. Riser (2007) Decadal spinup of the S. Pacific subtropical gyre. *Journal of Physical Oceanography*, **37**, 162-173.
32. Johnson, K., J. Needoba, S. Riser, and W. Showers (2007) Chemical sensor networks for the aquatic environment. *Chemical Reviews*, **107**, 623-640.
33. Riser, S.C. and K.S. Johnson (2008) Net production of oxygen in the subtropical ocean. *Nature*, **451**, 323-325.
34. Riser, S.C., L. Ren, and A. Wong (2008) Salinity in Argo: a modern view of a changing ocean. *Oceanography*, **21**, 56-67.
35. Riser, S.C., J. Nystuen, and A. Rogers (2008) Monsoon effects in the Bay of Bengal inferred from profiling float-based measurements of wind speed and rainfall. *Limnology and Oceanography*, **53**, 2080-2093.

36. Boss, E., D. Swift, L. Taylor, P. Brickley, R. Zaneveld, S.C. Riser, and M.J. Perry (2008) Robotic in-situ and satellite based observations of pigment and particle distributions in the western North Atlantic. *Limnology and Oceanography*, **53**, 2112-2122.
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39. Ren, L. and S. Riser (2009) Seasonal salt budget in the northeast Pacific Ocean. *Journal of Geophysical Research-Oceans*, **114**, C12004, doi:10.1029/2009JC005307.
40. Roemmich, D., G. Johnson, S. Riser, R. Davis, J. Gilson, W.B. Owens, and S. Garzoli (2009) The Argo program: observing the global ocean with profiling floats. *Oceanography*, **22**, 34-43.
41. Roemmich, D., S. Riser, et al. (2009) Argo: The challenge of continuing 10 years of progress. *Oceanography*, **22**, 46-55.
42. Johnson, K., S. Riser et al. (2009) Observing biogeochemical cycles at global scales with profiling floats and gliders. *Oceanography*, **22**, 216-225.
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44. Ren, L. and S. Riser (2010) Observations of decadal-scale salinity changes in the thermocline of the North Pacific Ocean. *Deep-Sea Research II*, **57**, 1161-1170.
45. Ohshima, K., T. Nakanowatari, S. Riser, and M. Wakatsuchi (2010) Seasonal variation in the in- and outflow of the Okhotsk Sea with the North Pacific. *Deep-Sea Research II*, **57**, 1247-1256.
46. Ren, L. and S. Riser (2010) Observations of decadal-scale salinity changes in the thermocline of the North Pacific Ocean. *Deep-Sea Research II*, **57**, 1161-1170.
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50. Ravichandran, M., M. Girishkumar, and S. Riser (2012) Observed variability in chlorophyll-a using profiling floats in the southwestern Arabian Sea. *Deep-Sea Research* 1, **65**, 15-25.
51. Johnson, K., L. Colletti, C. Sakamoto, H. Jannasch, D. Swift, and S. Riser (2013) Long-term nitrate measurements in the ocean using the in situ ultraviolet spectrophotometer: sensor integration into the APEX profiling float. *Journal of Atmospheric and Oceanic Technology*, **30**, 1854-1866.

52. Takeshita, Y., T. Martz, K. Johnson, J. Plant, D. Gilbert, S. Riser, C. Neill, and B. Tillbrook (2013) A climatology-based quality control procedure for profiling float-based oxygen data. *Journal of Geophysical Research*, **118**(10), 5640-5650.
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65. Johnson, K., J. Plant, S. Riser, and D. Gilbert (2015) Air oxygen calibration of oxygen Optodes on a profiling float array. *Journal of Atmospheric and Oceanic Technology*, **32**, 2160-2172.
66. Riser, S. et al. (28 co-authors) (2016) Fifteen years of ocean observations with the global Argo array. *Nature Climate Change*, doi: 10.1038/NCLIMATE2872, 1451-153.
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69. Wilson, E. and S. Riser (2016) An assessment of the seasonal salinity budget for the upper Bay of Bengal. *Journal of Physical Oceanography*, **46**,1361-1376.
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