

Glenn Flierl: Publications

- Warner R.E., G.R. Flierl, W.E. Davies, E.C. Ball, A.J. Ferguson, J.S. Forster, and S.A. Gottlieb (1972) Coincidence study and DWBA analysis of the ${}^3\text{He} + \text{d} \rightarrow {}^2\text{H} + \text{p}$ reaction. *Nucl. Phys. A*, **192**, 341-352.
- Flierl, G.R. and A.R. Robinson (1972) Deadly surges in the Bay of Bengal: dynamics and storm-tide tables. *Nature*, **239** (5369), 213-215.
- Robinson, A.R., J.R. Luyten and G.R. Flierl (1975) On the theory of thin rotating jets: a quasigeostrophic time-dependent model. *Geophys. Fluid Dyn.*, **6** (3), 211-244.
- McWilliams, J.C. and G.R. Flierl (1976) Optimal quasi-geostrophic wave analyses of the MODE array data. *Deep-Sea Res.*, **23**, 285-300
- Flierl, G.R. and A.R. Robinson (1977) XBT measurements of thermal gradients in the MODE eddy. *J. Phys. Oceanogr.*, **7** (2), 300-302.
- Flierl, G.R. (1977) The application of linear quasigeostrophic dynamics to Gulf Stream rings. *J. Phys. Oceanogr.*, **7** (3), 365-379.
- Flierl, G.R. (1977) Simple applications of McWilliams' 'A note on a consistent quasi-geostrophic model in a multiply connected domain.' *Dyn. Atmos. and Oceans*, **1**, 443-453.
- Flierl, G.R. and J.C. McWilliams (1977) On the sampling requirements for measuring moments of eddy variability. *J. Mar. Res.*, **35** (4), 797-820.
- Flierl, G.R. (1978) Correcting expendable bathythermography (XBT) data for salinity effects to compute dynamic heights in Gulf Stream rings. *Deep-Sea Res.*, **25**, 129-134.
- Flierl, G.R. (1978) Models of vertical structure and the calibration of two-layer models. *Dyn. Atmos. and Oceans*, **2**, 341-381.
- Flierl, G.R. (1979) A simple model for the structure of warm and cold core rings. *J. Geophys. Res.*, **84**, 781-785.
- Flierl, G.R. (1979) Baroclinic solitary waves with radial symmetry. *Dyn. Atmos. and Oceans*, **3**, 15-38.
- McWilliams, J.C. and G.R. Flierl (1979) On the evolution of isolated, nonlinear vortices. *J. Phys. Oceanogr.*, **9** (6), 1155-1182.
- Fu, L.L. and G.R. Flierl (1980) Nonlinear energy and enstrophy transfers in a realistically stratified ocean. *Dyn. Atmos. and Oceans*, **4**, 219-246.
- Flierl, G.R., V.D. Larichev, J.C. McWilliams and G.M. Reznik (1980) The dynamics of baroclinic and barotropic solitary eddies. *Dyn. Atmos. and Oceans*, **5**, 1-41.
- Charney, J.G. and G.R. Flierl (1981) 'Oceanic Analogues of Large-scale Atmospheric Motions.' In *Evolution of Physical Oceanography (Scientific Surveys in Honor of Henry Stommel)*, Ed. B.A. Warren and C.Wunsch, MIT Press, Cambridge, Mass, pp. 504-548.
- McWilliams, J.C., G.R. Flierl, V.D. Larichev and G.M. Reznik (1981) Numerical studies of barotropic modons. *Dyn. Atmos. and Oceans*, **5**, 219-238.
- Flierl, G.R. (1981) Particle motions in large amplitude wave fields. *Geophys. Astrophys. Fluid Dyn.*, **18**, 39-74.
- Ring Group- Backus, Flierl, Kester, Olson, Richardson, Wiebe, Wormuth- (1981) Gulf Stream rings: their physics, chemistry and biology. *Science*, **212** (4499), 1091-1100.

- Flierl, G.R. (1982) "Simple models of waste disposal in a gyre circulation." In *Industrial and Sewage Wastes in the Ocean (vol 1)*, Ed. I.W. Duedall B.H. Ketchum, P.K. Park and D.R. Kester, Wiley Interscience.
- Flierl, G.R., M.E. Stern, J.A. Whitehead, Jr. (1983) The physical significance of modons: laboratory experiments and general physical constraints. *Dyn. Atmos. and Oceans*, **7**, 233-263.
- Wiebe, P.B. and G.R. Flierl (1983) Euphausiid invasion/ dispersal in Gulf Stream cold core rings. *Austr. J. Mar. and Freshwater Res.*, **34**, 625-652.
- Rambaldi, S. and G.R. Flierl (1983) Form-drag instability and multiple equilibria in the barotropic case. *Il Nuovo Cimento*, **6(5)**, 505-522.
- Flierl, G.R. (1984) A model for the structure and motion of a warm core ring. *Austr. J. Mar. and Freshwater Res.*, **35**, 9-23.
- Flierl, G.R. (1984) Rossby wave radiation from a strongly nonlinear warm eddy. *J. Phys. Oceanogr.*, **14(1)**, 47-58.
- Flierl, G.R. and A.R. Robinson (1984) On the time-dependent meandering of a thin jet. *J. Phys. Oceanogr.*, **14(2)**, 412-423.
- Flierl, G.R. and W.K. Dewar (1985) "Motion and dispersion of dumped material by large amplitude eddies." In *Wastes in the Ocean (vol 5)*, Ed. D.R. Kester, et. al., John Wiley and Sons, Inc.
- Flierl, G.R. and J.S. Wroblewski (1985) The possible influence of warm core rings upon shelf water larval fish distributions. *Fish. Bull.*, **83(3)**, 313-330.
- Flierl, G.R. and R.P. Mied (1985) Frictionally-induced circulations and spin-down of a warm core ring. *J. Geophys. Res.*, **90(C5)**, 8917-8927.
- Dewar, W.K. and G.R. Flierl (1985). Particle trajectories and simple models of tracer transport in coherent vortices. *Dyn. Atmos. Oceans*, **9**, 215-252.
- Wiebe, P.H., G.R. Flierl, C.S. Davis, V. Barber and S.H. Boyd (1985) Macrozooplankton biomass in Gulf Stream warm-core rings: spatial distribution and temporal changes. *J. Geophys. Res.*, **90(C5)**, 8885-8901.
- Wiebe, P.H., A.W. Morton, A.M. Bradley, R.H. Backus, J.E. Craddock, V. Barber, T.J. Cowles and G. R. Flierl (1985) New developments in the MOCNESS, an apparatus for sampling zooplankton and micronekton. *Mar. Biol.*, **87**, 313-323.
- Franks, P.J.S., J.S. Wroblewski and G.R. Flierl (1986) Behavior of a simple plankton model with food-level acclimation by herbivores. *Mar. Biol.*, **91**, 121-129.
- Franks, P.J.S., J.S. Wroblewski and G.R. Flierl (1986) Prediction of phyto-plankton growth in response to the frictional decay of a warm core ring. *J. Geophys. Res.*, **91(C6)**, 7603-7610.
- Polvani, L. and G. Flierl (1986) Generalized Kirchhoff Vortices. *Phys. Fluids*, **29(8)**, 2376-2379.
- Flierl, G.R. (1987) Isolated eddy models in Geophysics. *Ann. Rev. Fluid Mech.*, **19**, 493-530.
- Huang, R.X. and G.R. Flierl (1987) Two-layer models for the thermocline and current structure in subtropical/supolar gyres. *J. Phys. Oceanogr.*, **17(7)**, 872-884.
- Flierl, G.R., P. Malanotte-Rizzoli and N.J. Zabusky (1987) Nonlinear waves and coherent vortex structures in barotropic b-plane jets. *J. Phys. Oceanogr.*, **17(9)**, 1408-1438.

- Stern M.E. and G.R. Flierl (1987). On the interaction of a vortex with a shear flow. *J. Geophys. Res.*, **92(C10)**, 10733-10744.
- Dewar, W.K. and G.R. Flierl (1987) Some effects of the wind on rings. *J. Phys. Oceanogr.*, **17(10)**, 1653-1667.
- Wroblewski, J.S., J.L. Sarmiento, and G.R. Flierl (1988) An ocean basin scale model of plankton dynamics in the North Atlantic. I. Solutions for climatological oceanographic conditions in May. *Global Biogeochem. Cycles*, **2**, 199-218.
- Polvani, L.M. , N.J. Zabusky, and G.R. Flierl (1988) Applications of contour dynamics to two layer quasigeostrophic flows. *Fluid Dynamics Res.*, **3**, 422-424.
- Flierl, G.R. (1988) On the instability of geostrophic vortices. *J. Fluid Mech.*, **197**, 349-388.
- Polvani, L.M., G.R. Flierl and N.J. Zabusky (1989) Filamentation of unstable vortex structures via separatrix crossing: a quantitative estimate of onset time. *Phys. Fluids*, **A1**, 181-184.
- Swaters, G.E., and G.R. Flierl. (1989) "Ekman dissipation of a barotropic modon," in *Mesoscale/Synoptic Coherent Structures in Geophysical Turbulence*, eds. J.C.J. Ni-houl and B.M. Jamart.
- Cornillon, P., R. Weyer and G. Flierl. (1989) Translational velocity of warm core rings relative to the Slope Water. *J. Phys. Oceanogr.*, **19**, 1317-1332.
- Carton, X.J., G.R. Flierl, and L.M. Polvani. (1989) The generation of tripoles from unstable axisymmetric isolated vortex structures. *Europhysics Letters*, **9**, 339-344.
- Polvani, L.M., N.J. Zabusky, and G.R. Flierl. (1989) Two-layer geostrophic vortex dynamics. Part I. Upper-layer V-States and merger. *J. Fluid Mech.*, **205**, 215-242.
- Whitehead, J.A., M.E. Stern, G.R. Flierl, and B. Klinger (1990). Experimental observations of baroclinic eddies on a sloping bottom. *J. Geophys. Res.*, **95**, 9585-9610.
- Meacham, S., G. Flierl, U. Send (1990) Vortices in shear. *Dyn. Atmos. and Oceans*, **14**, 333-386.
- Meacham, S.P. and G.R. Flierl (1991) Finite amplitude waves on barotropic shear layers and jets. *Geophys. Astrophys. Fluid Dyn.*, **56**, 3-57.
- Swaters, G.E. and G.R. Flierl (1991) Dynamics of ventilated coherent cold eddies on a sloping bottom. *J. Fluid Mech.*, **223**, 565-587.
- Davis, C.S., G.R. Flierl, P.H. Wiebe, P.J.S. Franks (1991) Micropatchiness, turbulence, and recruitment in plankton. *J. Mar. Res.*, **49**, 109-151.
- Yano, J.I. and G.R. Flierl (1992) Isolated potential vorticity patches in quasigeostrophic zonal shear flows. *Dyn. Atmos. and Oceans*, **16**, 439-472.
- Thompson, L. and G.R. Flierl (1993) Barotropic flow over finite isolated topography: steady solutions on the beta-plane and the initial value problem. *J. Fluid Mech.*, **250**, 553-586.
- Flierl, G.R. and C.S.Davis (1993) Biological Effects of Gulf Stream Meandering. *J. Mar. Res.*, **51**, 529-560.
- Sutyrin, G.G. and G.R. Flierl (1993) Intense vortex motion on the beta-plane. Part 1. Development of the beta-gyres. *J. Atmos. Sci.*, **51**, 773-790.
- Yano, J-I. and G.R. Flierl (1994) Jupiter's Great Red Spot: compactness conditions and stability. *Ann. Geophysicae*, **12**, 1-18.
- Flierl, G.R. (1994) Rings: Semicoherent oceanic features. *Chaos*, **4**, 355-67.

- Flierl, G. R., and K. Haines (1994). The decay of modons due to Rossby wave radiation. *Phys. Fluids*, **6**(10), 3487-97.
- Yasuda, I. and G.R. Flierl (1995) Two dimensional asymmetric vortex merger: contour dynamics experiment. *J. Oceanogr.*, **51**, 145-70.
- Dadou, I., V. Garcon, V. Andersen, G.R. Flierl, C.S.Davis (1996). Impact of the North Equatorial current meandering on a pelagic ecosystem: a modelling approach. *J. Marine Res.*, **54**, 311-342.
- Meacham, S.P., P.J. Morrison, G.R. Flierl (1997), Hamiltonian moment reduction for describing vortices in shear. *Phys. Fluids*, **9**, 2310-28.
- Yasuda, I. and G.R. Flierl (1997) Two dimensional asymmetric vortex merger: merger dynamics and critical merger distance. *Dyn. Atmos. and Oceans*, **26** 159-181.
- Silveira, I.C. da, G.R. Flierl and W.S. Brown (1999), Dynamics of separating western boundary currents. *J. Phys. Oceanogr.*, **29**, 119-144.
- Flierl, G., D. Grünbaum, S. Levin, D. Olson (1999), From Individuals to Aggregations: the Interplay Between Behavior and Physics. *J. Theoret. Bio.*, **196**, 397-454.
- Flierl, G.R. (1999) Thin Jet and Contour Dynamics Models of Gulf Stream Meandering. *Dyn. Atmos. Oc.*, **29**, 189-215.
- Sobel, A.H. and G.R. Flierl (2000), Cross-channel advective-diffuse transport by a monochromatic traveling wave. *Phys. Fluids*, **12**, 1377-1381.
- Silveira, I. C. A. da, W. S. Brown and G. R. Flierl (2000), Dynamics of the North Brazil Current Retroflection from the Western Tropical Atlantic Experiment observations. *J. Geophys. Res.*, **105**, 28,559-583.
- Flierl, G. (2001) Copepods and whales: fluid flow, behavior and population dynamics. In *XIIIth International Congree on Mathematical Physics*, eds. A. Grigoryan, Fokas, A., Kibble, T. and Zegarlinski, B. International Press of Boston, Somerville, MA, pp. 155-162.
- Silveira, I. C. A. da and G. R. Flierl (2002), Eddy Formation in $2\frac{1}{2}$ -layer, Quasi-geostrophic Jets. *J. Phys. Oceanogr.*, **32**, 729-745.
- Flierl, G, and D. McGillicuddy (2002). Mesoscale and Sub-mesoscale Physical-Biological Interactions, *The Sea*, Volume 12, pp 113-185..
- Pascual, M., M. Roy, F. Guichard, and G. Flierl(2002), Cluster size distributions: signatures of self-organization in spatial ecologies. *Phil. Trans. R. Soc.Lond. B*, **357**, 657-666.
- Poulin, F.J., G.R. Flierl, and J. Pedlosky(2003). Parametric Instability in Oscillatory Shear Flows. *Jour. Fluid Mech.*, **481** 329-353.
- Arbic, B.K., and G.R. Flierl(2003) Vorticity/streamfunction relationships and spatial distributions of energy in two-dimensional, equivalent barotropic, and geostrophic turbulence, *Phys. Fluids*, **15**(8), 2177-2189.
- Poulin, F.J. and G.R. Flierl(2003) The Nonlinear Evolution of Barotropically Unstable Jets. *J. Phys. Oceanogr.*, **33**, 2173-2192.
- Arbic, B.K. and G.R. Flierl(2004) Baroclinically Unstable Geostrophic Turbulence in the Limits of Strong and Weak Bottom Ekman Friction: Application to Midocean Eddies. *J. Phys. Oceanogr.*, **34**, 2257-2273.
- Arbic, B.K. and G.R. Flierl(2004) Effects of Mean Flow Direction on Energy, Isotropy, and

- Coherence of Baroclinically Unstable Beta-Plane Geostrophic Turbulence. *J. Phys. Oceanogr.*, **34**, 77-93.
- Poulin, F.J. and G.R. Flierl(2005) The Influence of Topography on the Stability of Jets. *Jour. Phys. Oceanogr.*, **35** 811-825.
- Glover, D.M., C.L. Chandler, S.C. Doney, K.O. Buesseler, G. Heimerdinger, J.K.B. Bishop, G.R. Flierl (2006) The US JGOFS data management experience. *Deep Sea Res. Part II*, **53**, 793-802.
- Flierl, G. and J. Pedlosky (2007). The nonlinear dynamics of Time-Dependent, Subcritical Baroclinic Currents. *J. Phys. Oceanogr.*, **37** 1001-1021.
- Arbic, B.K., G.R. Flierl, and R.B. Scott(2007) Cascade Inequalities for Forced-Dissipated Geostrophic Turbulence. *J. Phys. Oceanogr.*, **37**, 1470-1487.
- Kaspi, Y. and G. Flierl(2007) Formation of jets by baroclinic instability on gas planet atmospheres. *J. Atm. Sci.*, **64** 31773194
- Poulin, F.J. and Flierl, G.R. (2008) The Stochastic Mathieu's Equation, Proc. R. Soc. Lond. A., 464 , 1885-1904
- Verdy, A. and G. Flierl(2009) Evolution and social behavior in krill *Deep Sea Research Part II: Topical Studies in Oceanography*, **55** 472-484
- Verdy, A., M. Follows and G. Flierl (2009). Optimal phytoplankton cell size in an allometric model. *Marine Ecology Progress Series*, **379**, 1-12
- Kaspi, Y., G.R. Flierl, A.P. Showman (2009) The deep wind structure of the giant planets: Results from an anelastic general circulation model, *Icarus*, **202**, 525-542
- Adams, D.K. and G.R. Flierl (2010) Modeled interactions of mesoscale eddies with the East Pacific Rise: Implications for larval dispersal. *Deep-Sea Res. I*, **57**, 1163-1176
- Kaspi,Y., W.B. Hubbard, A.P. Showman, and G.R. Flierl (2010) Gravitational signature of Jupiter's internal dynamics. *Geophys. Res. Lett.*, **37**, L01204
- Barton, A.D., S. Dutkiewicz, G. Flierl, J. Bragg, and M.J. Follows (2010) Patterns of diversity in marine phytoplankton. *Science*, **327**, 1509-11, *Science*, **329**, 512-d.
- Baker-Yeboah, S., G. Flierl, G. Sutyrin, and Y. Zhang (2010) Transformation of an Agulhas eddy near the continental slope. *Ocean Science*, **6**, 143-159.
- Showman, A.P., Y. Kaspi, and G.R. Flierl (2011) Scaling laws for convection and jet speeds in the giant planets, *Icarus*, **211**, 1258-1273.
- Flierl, G.R. and P.J. Morrison (2011) Hamiltonian-Dirac simulated annealing: Application to the calculation of vortex states, *Physica D*, **240**, 212232.
- Zhang, Y., J. Pedlosky, G.R. Flierl (2011) Shelf Circulation and Cross-Shelf Transport out of a Bay Driven by Eddies from an Open-Ocean Current. Part I: Interaction between a Barotropic Vortex and a Steplike Topography. *J. Phys. Oceanogr.*, **41**, 889910.
- Zhang, Y., J. Pedlosky, G.R. Flierl (2011) Cross-Shelf and Out-of-Bay Transport Driven by an Open-Ocean Current. *J. Phys. Oceanogr.*, **41**, 21682186.
- Arbic, B.K., R.B. Scott, G.R. Flierl, A.J. Morten, J.G. Richman, and J.F. Shriver (2012) Nonlinear cascades of surface oceanic geostrophic kinetic energy in the frequency domain. *J. Phys. Oceanogr.*, **42**, 1577-1600.
- Wang, J., M.A. Spall, G.R. Flierl, and P. Malanotte-Rizzoli (2012) A new mechanism for the generation of quasi-zonal jets in the ocean, *Geophys. Res. Lett.*, **39**, L10601.

- Wang, J., G.R. Flierl, J.H. LaCasce, J.L. McClean, A. Mahadevan (2013) Reconstructing the ocean's interior from surface data. *J. Phys. Oceanogr.*, **43**, 1611-1626.
- Chen, R., G.R. Flierl, C. Wunsch (2014) A Description of Local and Nonlocal Eddy Mean Flow Interaction in a Global Eddy-Permitting State Estimate. *J. Phys. Oceanogr.*, **44**, 2336-2352.
- Goluskin, D., H. Johnston, G.R. Flierl, E.A. Spiegel (2014) Convectively driven shear and decreased heat flux. *J. Fluid Mech.*, **759**, 360-385.
- Flierl, G.R. and N.W. Woods (2015) Copepod aggregations: influences of physics and collective behavior. *J. Stat. Phys.*, **158**, 665-698.
- Chen, R., S.T. Gille, J.L. McClean, G.R. Flierl and A. Griesel (2015) A Multiwavenumber Theory for Eddy Diffusivities and Its Application to the Southeast Pacific (DIMES) Region. *J. Phys. Oceanogr.*, **45**, 1877-96.
- Chen, R., G.R. Flierl, C. Wunsch (2015) Quantifying and Interpreting Striations in a Sub-tropical Gyre: A Spectral Perspective. *J. Phys. Oceanogr.*, **45**, 387-406.
- Chen, R. and G.R. Flierl (2015) The Contribution of Striations to the Eddy Energy Budget and Mixing: Diagnostic Frameworks and Results in a Quasigeostrophic Barotropic System with Mean Flow. *J. Phys. Oceanogr.*, **45**, 2095-2113.
- Olson, E.M., D.J. McGillicuddy, G.R. Flierl, C.S. Davis, S.T. Dyhrman, J.B. Waterbury (2015). Mesoscale eddies and Trichodesmium spp. distributions in the southwestern North Atlantic. *J. Geophys. Res., Oceans*, **120**, 4129-50.
- Callies, J., Flierl, G., Ferrari, R. and Fox-Kemper, B. (2016) The role of mixed-layer instabilities in submesoscale turbulence, *J. Fluid Mech.*, **788**, 5-41.
- O'Neill, M.E., K.A. Emanuel, and G.R. Flierl (2016) Weak Jets and Strong Cyclones: Shallow-Water Modeling of Giant Planet Polar Caps, *J. Atmos. Sci.*, **73**, 1841-55.
- Chen, R., A.F. Thompson, G.R. Flierl (2016) Time-Dependent Eddy-Mean Energy Diagrams and Their Application to the Ocean. *J. Phys. Oceanogr.*, **46**, 2827-50.
- Morten, A.J., B.K. Arbic, G.R. Flierl (2017) Wavenumber-frequency analysis of single-layer shallow-water beta-plane quasi-geostrophic turbulence. *Phys. Fluids*, **29**, 106602.
- Spaulding, C. C.R. Doering, G.R. Flierl (2017) Resonant activation of population extinctions. *Phys. Rev. E*, **96**, 042411.
- Rabinovich, M., Z. Kizner, G. Flierl (2018) Bottom-topography effect on the instability of flows around a circular island. *J. Fluid Mech.*, **856**, 202-227.
- Musgrave, R., G. Flierl, T. Peacock (2018) The generation of Rossby waves and wake eddies by small islands, *J. Mar. Res.*, **76**, 63-91.
- G.R. Flierl (2018) "Collective behavior and ecology" in *Handbook of Statistics volume #40: Integrated Population Biology and Modeling Part B*
- Rzeznik, A.J., G.R. Flierl, T. Peacock (2019) Model investigations of discharge plumes generated by deep-sea nodule mining operations. *Ocean Eng.*, **172**, 684-96.
- Lermusiaux, P.F., Doshi, M., Kulkarni, C.S., Gupta, A., Haley, P.J., Mirabito, C., Trotta, F., Levang, S.J., Flierl, G.R., Marshall, J. and Peacock, T. (2019) Plastic pollution in the coastal oceans: Characterization and modeling. *OCEANS 2019 MTS/IEEE SEATTLE (IEEE.)*, 1-10.
- Flierl, G.R., P.J. Morrison, R.V. Swaminathan (2019) Jovian vortices and jets. *Fluids*, **4**, 104.

- Wagner, G.L., G. Flierl, R. Ferrari, G. Voet, G.S. Carter, M.H. Alford, and J.B. Girton, (2019) "Squeeze Dispersion and the Effective Diapycnal Diffusivity of Oceanic Tracers." *Geophys. Res. Letters*, **46.10**, 5378-5386.
- Napolitano, D.C., I.C.A. da Silveira, C.B. Rocha, G.R. Flierl, P.H.R. Calil, and R.P. Martins (2019) On the steadiness and instability of the Intermediate Western Boundary Current between 24°S and 18°S. *J. Phys. Oceanogr.*, .
- Youngs, M., G. Flierl, R. Ferrari (2019) Role of Residual Overturning for the Sensitivity of Southern Ocean Isopycnal Slopes to Changes in Wind Forcing. *J. Phys. Oceanogr.*, **49**, 2867-81.
- Rabinovich, M., Z. Kizner, G. Flierl (2019) Barotropic annular flows, vortices and waves on a beta cone. *J. Fluid Mech.*, **875**, 225253.
- Zhao, B., E. Chieusse-Gérard, G. Flierl (2019) Influence of bottom topography on vortex stability. *J. Phys. Oceanogr.*, **49**, 3199-219.
- Bhamidipati, N., A.N. Souza, G.R. Flierl (2020) Turbulent mixing of a passive scalar in the ocean mixed layer. *Ocean Modelling*, **149** 101615.
- Souza, A.N., G.L. Wagner, A. Ramadhan, B. Allen, V. Churavy, J. Schloss, J. Campin, C. Hill, A. Edelman, J. Marshall, G. Flierl, R. Ferrari (2020) Uncertainty Quantification of Ocean Parameterizations: Application to the KProfileParameterization for Penetrative Convection. *Jour. Advances. Modelling Earth Systems*, <https://doi.org/10.1029/2020MS002108>.
- Kang, W., G. Flierl (2020) Spontaneous formation of geysers at only one pole on Enceladuss ice shell. *PNAS*, **117**(26) 14764-8.
- Benavides, S., G. Flierl(2020) Two-dimensional partially ionized magnetohydrodynamic turbulence. *J. Fluid Mech.*, **900A28**. doi:10.1017/jfm.2020.500D.
- Youngs, M.K., R. Ferrari, G./R. Flierl(2020) BasinWidth Dependence of Northern Deep Convection. *G.R.L.*, <https://doi.org/10.1029/2020GL089135>
- Napolitano, C., C.B. Rocha, I.C.A. da Silveira, I.T. Simoes-Sousa, G.R.Flierl (2021) Can the Intermediate Western Boundary Current recirculation trigger the Vitoria Eddy formation? *Ocean Dyn.*, , <https://doi.org/10.1007/s10236-020-01437-6>.
- Simoes-Sousa, I.T., Silveira, I.C.A., Tandon, A., Flierl, G.R., Ribeiro, C.H. and Martins, R.P., 2021. The Barreirinhhas Eddies: Stable energetic anticyclones in the near-equatorial South Atlantic. *Frontiers in Marine Science*.
- Freilich, M., Mignot, A., Flierl, G. and Ferrari, R., 2021. Grazing behavior and winter phytoplankton accumulation. *Biogeosci.*, **18**(20), 5595-5607.
- Prend, C.J., Flierl, G.R., Smith, K.M., Kaminski, A.K., 2021. Parameterizing eddy transport of biogeochemical tracers *Geophys. Res. Lett.*, **48**(21), e2021GL094405.
- Benavides, S. J., Burns, K.J., Gallet, B., Cho, J.Y., & Flierl, G.R. (2022). Inverse cascade suppression and shear-layer formation in magnetohydrodynamic turbulence subject to a guide field and misaligned rotation. *J. Fluid Mech.*, **935**, A1.
- Benavides, S. J., Burns, K.J., Gallet, B., & Flierl, G.R. (2022). Effective drag in rotating, poorly conducting plasma turbulence. *Astrophys. J.*, **938**(2), 92.
- Freilich, M.A., Flierl, G. and Mahadevan, A., 2022. Diversity of growth rates maximizes phytoplankton productivity in an eddying ocean. *Geophys. Res. Lett.*, **49**(3) e2021GL096180.

- Silver, A., Gangopadhyay, A., Gawarkiewicz, G., Andres, M., Flierl, G. and Clark, J., 2022. Spatial Variability of Movement, Structure, and Formation of Warm Core Rings in the Northwest Atlantic Slope Sea. *Jour. Geophys. Res.: Oceans*, **127**(8), e2022JC018737.
- Luko, C.D., Pereira, F., da Silveira, I.C., Tandon, A. and Flierl, G.R., 2022. Effects of the seasonality of mesoscale eddies on the planktonic dynamics off eastern Brazil. *Dyn. Atmos. Oceans*, **98**, 101299.
- Flierl, G.R., 2022. Topographic solitary waves and groups. *Ocean and Coastal Res.*, **70**
- Gallet, B., Miquel, B., Hadjerci, G., Burns, K.J., Flierl, G.R. and Ferrari, R., 2022. Transport and emergent stratification in the equilibrated Eady model: the vortex-gas scaling regime. *J. Fluid Mech.*, **948**, p.A31.
- da Silveira, I.C., Pereira, F., Flierl, G.R., Simoes-Sousa, I.T., Palczy, A., Borges-Silva, M. and Rocha, C.B., 2023. The Brazil Current quasi-stationary unstable meanders at 22° S 23° S. *Prog. Oceanogr.*, **210**, p.102925.
- Li, K., Zhang, Z., Chini, G. and Flierl, G., 2012. Langmuir circulation: An agent for vertical restratification?. *J. Phys. Oceanogr.*, **42**(11), 1945-58.
- Youngs, M.K., and Flierl, G.R., 2023. Extending Residual-Mean Overturning Theory to the Topographically Localized Transport in the Southern Ocean. *J. Phys. Oceanogr.*, **53**, 1901-15.
- Liu M, Chen R, Flierl GR, Guan W, Zhang H, Geng Q. 2023. Scale-dependent eddy diffusivities at the Kuroshio Extension: A particle-based estimate and comparison to theory. *J. Phys. Oceanogr.*, **53**, 1851-69.
- In revision:*
- Flierl, G.R., A.S. Souza, 2024. On the non-local nature of turbulent fluxes of passive scalars. *Jurnal of Fluid Mechanics*.
- Submitted*
- Yang, Y., Chen, R., Flierl, G.R. and Zhang, H., 2024. A diagnostic framework linking eddy flux ellipse with eddy-mean energy exchange.