

STEPHEN MATTHEW GRIFFIES

EMPLOYMENT AND APPOINTMENTS

2011-present GFDL Physical Scientist, Grade GS-15
Jan-Jun 2011 CSIRO Distinguished Visiting Scientist Fellow, Hobart, Australia
Mar 2009 Visiting Professor, Universite catholique de Louvain, Belgium
2006-present GFDL Ocean Model Development Team co-Leader
Jan-Nov 2005 Visiting Scientist, CSIRO Marine and Atmospheric Research, Hobart, Australia
2001-2005 GFDL Oceans and Climate Group Leader
2001-2002 GFDL Ocean Model Development Team co-Leader
2000-2001 GFDL Climate Model Development Team Leader
2000-2011 GFDL Physical Scientist, Grade GS-14
1997-2000 GFDL Physical Scientist, Grade GS-13
1996-1997 GFDL Physical Scientist, Grade GS-12
1995-1996 GFDL Visiting Research Scientist
1993-1995 UCAR Global & Climate Change Fellow at Princeton University
1988-1993 University of Pennsylvania Physics Graduate Research Fellow
1986-1987 Northwestern University Engineering Sciences and Applied Mathematics Fellow
1984-1986 Louisiana State University Chemical Engineering Research Technician

EDUCATION

1988-1993 University of Pennsylvania, Philadelphia, USA • Theoretical Physics Ph.D degree
1987-1988 University of Washington, Seattle, USA • Physics undergraduate student
1986-1987 Northwestern University, Evanston, USA • Engineering Sciences and Applied Mathematics Masters of Science degree
1981-1986 Louisiana State University, Baton Rouge, USA • Chemical Engineering Bachelor of Science degree

OCEANOGRAPHIC CRUISES

1993 **Technical Assistant:** WOCE Line AR7W / Atlantic Circulation Experiment, Labrador Sea, *CCGS Hudson* (John Lazier, Chief Scientist)

AWARDS

2011 CSIRO Distinguished Visiting Scientist Fellow, Australia
2009 Visiting Professor, Universite catholique de Louvain, Belgium
2001 NOAA/Oceanic and Atmospheric Research Outstanding Scientific Paper
1999 NOAA/Oceanic and Atmospheric Research Outstanding Scientific Paper
1998 NOAA/Oceanic and Atmospheric Research Employee of the Year
1997 NOAA/Environmental Research Laboratories Outstanding Scientific Paper

EDUCATIONAL ADVISING ACTIVITIES

- 1999-2002 Shafer Smith: co-advisor for Princeton post-doc; now faculty at Courant Institute, New York University
- 2001-2002 Harper Simmons: advisor for GFDL visiting scientist; now at International Arctic Research Center, Alaska
- 2005 Jaison Kurian: External thesis examiner, Indian Institute of Science, PhD; now at UCLA
- 2005-2009 Andreas Klocker: co-advisor (with Trevor McDougall), University of Tasmania, now at MIT
- 2008-present Michael Bates: co-advisor (with Matthew England), University of New South Wales, PhD student
- 2010-present Tim Leslie: co-advisor (with Matthew England), University of New South Wales, PhD student

PROFESSIONAL SERVICES AND ORGANIZATION MEMBERSHIPS

- 2009-present Member of the Scientific Advisory Board for the Catalan Climate Institute *IC3*, Barcelona, Spain
- 2000-present CLIVAR Working Group on Ocean Model Development (co-chair 2004-2009)
- 2006-2009 CLIVAR Scientific Steering Group
- 2004-2009 CLIVAR Working Group on Coupled Modeling (ex officio)
- 2007-present Associate Editor of **Ocean Modelling**
- 2004-2007 Editorial Board of **Ocean Science**
- 1993-present Member of the American Geophysical Union
- 1993-present Member of the American Meteorological Society
- 2010-present Member of the European Geophysical Union

INVITED LECTURES AND PRESENTATIONS

- Feb 2011 *Ocean model algorithms directly impacting sea level simulations, and analysis methods used to characterize sea level change*: WCRP/IOC Workshop on Regional Sea Level Change, Paris, France.
- Nov 2010 *Ocean Climate Modeling at GFDL*: Scientific Workshop for the Centre for Australian Weather and Climate Research, Hobart, Australia.
- Sep 2010 *Sensitivity of Atlantic ocean variability to ocean physics and vertical coordinate*: CLIVAR WGOMD-GSOP Workshop on Decadal Variability, Predictability, and Predictions: Understanding the Role of the Ocean. Boulder USA.
- Mar 2009 *Physical Processes Setting the Ocean's Water Masses*: four lectures at Université Catholique de Louvain, Belgium.
- Apr 2008 *Physical Problems in Simulating the Ocean Climate System*: presentation given during a workshop on Oceans and Climate at Yale University.
- Mar 2008 *Physical Problems in Simulating the Ocean Climate System*: presentation given during a special session on Climate Physics at the American Physical Society's March Meeting of Condensed Matter Physics.
- Nov 2007 *Ocean Model Fundamentals*: 20 hour intensive course at the University of Tasmania, Australia.
- Aug 2006 *Ocean Model Fundamentals*: two lectures at the NSF summer school, *Modern Mathematical Methods in Physical Oceanography*, Breckenridge, USA.
- Oct 2004 *Ocean Model Fundamentals*: 20 hour intensive course at the *Indian Intensive School on Large-Scale Ocean Modelling*. Bangalore, India.
- Sep 2004 *Ocean Model Fundamentals*: three lectures at the *Global Ocean Data Assimilation Experiment Summer School*. La Londe Les Maures, France.
- May 2003 *Ocean Climate Modeling at NOAA-GFDL*: two presentations for a workshop on ocean modeling. Hobart, Australia.

- May 2002 *Ocean Climate Modeling with MOM4*: three presentations for a workshop on ocean modeling. Kiel, Germany.
- Jan 2001 *Ocean Dynamics and Modeling*: three lectures at La Escuela de Verano de Universidad de Concepción, Chile.
- Mar 1999 *Ocean and Climate Modeling*: two presentations at Conference on Global Climate. Barcelona, Spain.
- Sep-Dec 1993 Co-Lecturer: Atmospheric and Oceanic Data Assimilation, Princeton University
- 1990–1993 Instructor: Undergraduate Physics Laboratory, University of Pennsylvania
- 1990–1993 Teaching Assistant: General Relativity and Quantum Field Theory, University of Pennsylvania

CONVENER/ORGANIZER OF WORKSHOPS AND MEETINGS

- Oct 2011 *Ocean Circulation and Ventilation*, Session at the WCRP Open Science Conference, Denver, USA.
- Apr 2011 *Physical and biogeochemical ocean modelling: development, assessment, and applications*, Session at the European Geophysical Union General Assembly, Vienna, Austria.
- Oct 2009 *Workshop on Ocean Climate Modeling*, GFDL/Princeton, USA.
- Apr 2009 *CLIVAR Workshop on Ocean Mesoscale Eddies: Observations, Simulations, and Parameterizations*, Exeter, UK.
- Aug 2007 *CLIVAR Workshop on Numerical Methods in Ocean Modelling*, Bergen, Norway.
- Nov 2005 *CLIVAR Workshop on Modelling the Southern Ocean*, Hobart, Australia.
- Jun 2004 *CLIVAR Workshop on Evaluating the Ocean Component of IPCC Models*, Princeton, USA.
- Aug 2002 *Workshop on Z-coordinate Ocean Modeling*, Massachusetts Institute of Technology, USA.
- Nov 1999 *Meeting of Z-coordinate Ocean Modeling at GFDL, LANL, MIT, and NCAR*, Princeton, USA.
- Jul 1999 *Ocean/Atmosphere Variability and Predictability*, Session at the International Union of Geodesy and Geophysics, Session, Birmingham, UK.

INVITED PARTICIPANT IN ADVANCED SCHOOLS

- Jan 1998 NATO Advanced Study Institute: *Ocean Modeling and Parameterization*, Les Houches, France.
- Jan 1996 NATO Advanced Study Institute: *Climate Variability and Predictability*, Les Houches, France.
- Jul 1994 Meeting of UCAR Global and Climate Change Fellows. Steamboat Springs, USA.
- Jul 1992 Theoretical Advanced Study Institute: *From String Theory to Black Holes*, Boulder, USA.
- Jul 1991 High Energy Physics and Cosmology School, Center for Theoretical Physics. Trieste, Italy.
- Jun 1991 Theoretical Physics Summer School: *Particle Physics in the 1990's*, Les Houches, France.

REFEREED PUBLICATIONS

1. How physical processes impact global mean sea level, 2011: **S.M. Griffies** and R. J. Greatbatch, *in preparation for Ocean Modelling*.
2. GFDL's ESM2 global coupled climate-carbon Earth System Models Part 1: Physical formulation and baseline simulation characteristics, 2011: J.P. Dunne, J.G. John, R.W. Hallberg, **S.M. Griffies**, E.N. Shevliakova, R.J. Stouffer, J.P. Krasting, L.A. Sentman, P.C.D. Milly, S.L. Malyshev, A.J. Adcroft, W. Cooke, K.A. Dunne, M.J. Harrison, H. Levy, B.L. Samuels, M. Spelman, M. Winton, A.T. Wittenberg, P.J. Phillips, and N. Zadeh, *in preparation for Journal of Climate*.
3. Simulated climate and climate change in the GFDL CM2.5 high-resolution coupled climate model, 2011: T.L. Delworth, A. Rosati, W. Anderson, A.J. Adcroft, V. Balaji, R. Benson, K. Dixon, **S.M. Griffies**, H.-C. Lee, R.C. Pacanowski, G.A. Vecchi, A.T. Wittenberg, F. Zeng, and R. Zhang, *submitted to Journal of Climate*.
4. Impact of climate warming on upper layer of the Bering Sea, 2011: H.-C. Lee, T.L. Delworth, A. Rosati, R. Zhang, W.G. Anderson, C.A. Stock, F. Zeng, K.W. Dixon, **S.M. Griffies**, and A. Gnanadesikan, *submitted to Journal of Geophysical Research*.
5. Different magnitudes of projected subsurface ocean warming around Greenland and Antarctica, 2011: J. Yin, J.T. Overpeck, **S.M. Griffies**, A. Hu, J.L. Russell, and R.J. Stouffer, *Nature Geosciences*, doi: 10.1038/NCEO1189.
6. The Impact of Decadal-Centennial Climate Variability on the Distribution of Radiocarbon in CM2Mc, a New Earth System Model, 2011: E. Galbraith, E.Y. Hwon, A. Gnanadesikan, **S.M. Griffies**, J. Dunne, K. Rodgers, J.L. Sarmiento, D. Bianchi, J. Simeon, A. Wittenberg, I.M. Held, and R. Slater, *accepted for Journal of Climate*, doi: 10.1175/2011JCLI3919.1.
7. Water mass exchange in the Southern Ocean in coupled climate models, 2011: S.M. Downes, A. Gnanadesikan, **S.M. Griffies**, and J.L. Sarmiento, *Journal of Physical Oceanography*, doi: 10.1175/2011JPO4586.1.
8. GFDL's CM3 Coupled Climate Model: Characteristics of the Ocean and Sea Ice Simulations, 2011: **S.M. Griffies**, M. Winton, L.J. Donner, L.W. Horowitz, S.M. Downes, R. Farneti, A. Gnanadesikan, W.J. Hurlin, H.-C. Lee, Z. Liang, J.B. Palter, B.L. Samuels, A.T. Wittenberg, B.L. Wyman, J. Yin, and N.T. Zadeh, *Journal of Climate*, doi: 10.1175/2011JCLI3964.1.
9. The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component of the GFDL Global Coupled Model CM3, 2011: L.J. Donner, B.L. Wyman, R.S. Hemler, L.W. Horowitz, Y. Ming, M. Zhao, J.-C. Golaz, J. Austin, W.F. Cooke, S.R. Freidenreich, P. Ginoux, C.T. Gordon, **S.M. Griffies**, I.M. Held, W.J. Hurlin, S.A. Klein, A.R. Langenhorst, H.-C. Lee, S.-J. Lin, S. L. Malyshev, P.C.D. Milly, R. Pincus, J.J. Ploshay, V. Ramaswamy, M.D. Schwarzkopf, C.J. Seman, E. Shevliakova, W.F. Stern, R.J. Stouffer, R. John Wilson, M. Winton, and A.T. Wittenberg, *accepted for Journal of Climate*, doi: 10.1175/2011JCLI3955.1.
10. Realistic test cases for limited area ocean modelling, 2011: M. Herzfeld, M. Schmidt, **S.M. Griffies**, and Z. Liang, doi:10.1016/j.ocemod.2010.12.008, *Ocean Modelling*, **37**, 1–34.
11. On the use of IPCC-class models to assess the impact of climate on living marine resources, 2010: C.A. Stock, M.A. Alexander, N.A. Bond, K. Brander, W.W.L. Cheung, E.N. Curchitser, T.L. Delworth, J.P. Dunne, **S.M. Griffies**, M.A. Haltuch, J.A. Hare, A.B. Hollowed, P. Lehodey, S.A. Levin, J.S. Link, K.A. Rose, R.R. Rykaczewski, J.L. Sarmiento, R.J. Stouffer, F.B. Schwing, G.A. Vecchi, and F.E. Werner, doi:10.1016/j.pocean.2010.09.001, *Progress in Oceanography*, **88**, 1–27.
12. Parameterization of mixed layer eddies. III: Implementation and impact in global ocean climate simulations, 2010: N. Fox-Kemper, G. Danabasoglu, R. Ferrari, **S.M. Griffies**, R.W. Hallberg, M.M. Holland, M.E. Maltrud, S. Peacock, and B.L. Samuels, doi:10.1016/j.ocemod.2010.09.002, *Ocean Modelling*.
13. The impact of Greenland melt on regional sea level: a preliminary comparison of dynamic and static equilibrium effects, 2010: R.E. Kopp, J.X. Mitrovica, **S.M. Griffies**, C.C. Hay, J. Yin, and R.J. Stouffer, doi: 10.1007/s10584-010-9935-1, *Climatic Change Letter*.
14. The role of mesoscale eddies in the rectification of the Southern Ocean response to climate change, 2010: R. Farneti, T.D. Delworth, A.J. Rosati, **S.M. Griffies**, and F. Zeng, *Journal of Physical Oceanography*, **40**, 1539–1557.
15. Spatial Variability of Sea-Level Rise in 21st Century Projections, 2010: J. Yin, **S.M. Griffies**, and R.J. Stouffer, *Journal of Climate*, **23**, 4585–4607.
16. Boundary-Value Problem for the Parameterized Mesoscale Eddy Transport, 2010: R. Ferrari, **S.M. Griffies**, A.J.G. Nurser, and G.K. Vallis, *Ocean Modelling*, **32**, 143–156.
17. Evaluating the Uncertainty Induced by the Virtual Salt Flux Assumption in Climate Simulations and Future Projections, 2010: J. Yin, R.J. Stouffer, M.J. Spelman, and **S.M. Griffies**, *Journal of Climate*, **23**, 80–96.

18. Improving oceanic overflow representation in climate models: the Gravity Current Entrainment Climate Process Team, 2009: S. Legg, B. Briegleb, Y. Chang, E.P. Chassignet, G. Danabasoglu, T. Ezer, A.L. Gordon, **S.M. Griffies**, R. Hallberg, L. Jackson, W. Large, T. Özgökmen, H. Peters, J. Price, U. Riemenschneider, W. Wu, X. Xu, and J. Yang. *Bulletin of the American Meteorological Society*, **90**, 657–670.
19. The science of ocean climate models, 2009: **S.M. Griffies**. In **Encyclopedia of Ocean Sciences** 2nd Edition, J.H. Steele, K.K. Turekian, and S.A. Thorpe, editors. Elsevier, 133–140.
20. Coordinated Ocean-ice Reference Experiments (COREs), 2009: **S.M. Griffies**, A. Biastoch, C. Böning, F. Bryan, E. Chassignet, M. England, R. Gerdes, H. Haak, R.W. Hallberg, W. Hazeleger, J. Jungclaus, W.G. Large, G. Madec, B.L. Samuels, M. Scheinert, A. Sen Gupta, C.A. Severijns, H.L. Simmons, A.-M. Treguier, M. Winton, S. Yeager, J. Yin. *Ocean Modelling*, **26**, 1–46.
21. Effects in a climate model of slope tapering in neutral physics schemes, 2007: A. Gnanadesikan, **S.M. Griffies**, B.L. Samuels, *Ocean Modelling*, **16**, 1–16.
22. Algorithms for density, potential temperature, conservative temperature and freezing temperature of seawater, 2006: D.R. Jackett, T.J. McDougall, R. Feistel, D.G. Wright, and **S.M. Griffies**. *Journal of Atmospheric and Oceanic Technology*, **23**, 1709–1728.
23. GFDL’s CM2 Global Coupled Climate Models-Part 2: The Baseline Ocean Simulation, 2006: A. Gnanadesikan, K.W. Dixon, **S.M. Griffies**, V. Balaji, J.A. Beesley, W.F. Cooke, T.L. Delworth, R. Gerdes, M.J. Harrison, I.M. Held, W.J. Hurlin, H.-C. Lee, Z. Liang, G. Nong, R.C. Pacanowski, A. Rosati, J. Russell, B.L. Samuels, S.M. Song, M.J. Spelman, R.J. Stouffer, C.O. Sweeney, G. Vecchi, M. Winton, A.T. Wittenberg, F. Zeng, and R. Zhang. *Journal of Climate*, **19**, 675–697.
24. GFDL’s CM2 Global Coupled Climate Models-Part 1: Formulation and Simulation Characteristics, 2006: T.L. Delworth, A.J. Broccoli, A. Rosati, R.J. Stouffer, V. Balaji, J.A. Beeseley, W.F. Cooke, K.W. Dixon, J. Dunne, K.A. Dunne, J.W. Durachta, K.L. Findell, P. Ginoux, A. Gnanadesikan, C.T. Gordon, **S.M. Griffies**, R. Gudgel, M.J. Harrison, I.M. Held, R.S. Hemler, L.W. Horowitz, S.A. Klein, T.R. Knutson, P.J. Kushner, A.L. Langenhorst, H.-C. Lee, S.J. Lin, L. Lu, S.L. Malyshev, P.C. Milly, V. Ramaswamy, J. Russell, M.D. Schwarzkopf, E. Shevliakova, J. Sirutis, M.J. Spelman, W.F. Stern, M. Winton, A.T. Wittenberg, B. Wyman, F. Zeng, R. Zhang. *Journal of Climate*, **19**, 643–674.
25. Sensitivity of a global ocean model to increased run-off from Greenland, 2006: R. Gerdes, W.J. Hurlin, and **S.M. Griffies**, *Ocean Modelling*, **12**, 416–435.
26. Formulation of an ocean model for global climate simulations, 2005: **S.M. Griffies**, A. Gnanadesikan, K.W. Dixon, J.P. Dunne, R. Gerdes, M.J. Harrison, A. Rosati, J. Russell, B.L. Samuels, M.J. Spelman, M. Winton, R. Zhang. *Ocean Science*, **1**, 45–79.
27. Impacts of shortwave penetration depth on large-scale ocean circulation and heat transport, 2005: C. Sweeney, A. Gnanadesikan, **S. M. Griffies**, M. J. Harrison, A. J. Rosati, and B. L. Samuels. *Journal of Physical Oceanography*, **35**, 1103–1119.
28. Tracer Conservation with an Explicit Free Surface Method for Z-coordinate Ocean Models, 2001: **S.M. Griffies**, R.C. Pacanowski, M. Schmidt, and V. Balaji, *Monthly Weather Review*, **129**, 1081–1098.
29. Developments in Ocean Climate Modelling, 2000: **S.M. Griffies**, C. Böning, F.O. Bryan, E.P. Chassignet, R. Gerdes, H. Hasumi, A. Hirst, A.-M. Treguier, and D. Webb, *Ocean Modelling*, **2**, 123–192. **NOAA/Oceanic and Atmospheric Research Laboratories 2001 Outstanding Scientific Review Paper Award.**
30. Biharmonic friction with a Smagorinsky-like viscosity for use in large-scale eddy-permitting ocean models, 2000: **S.M. Griffies** and R. W. Hallberg. *Monthly Weather Review*, **128**, 2935–2946.
31. Spurious diapycnal mixing associated with advection in a z-coordinate ocean model, 2000: **S.M. Griffies**, R. C. Pacanowski, and R. W. Hallberg. *Monthly Weather Review*, **128**, 538–564.
32. A conceptual framework for predictability studies, 1999: T. Schneider and **S.M. Griffies**. *Journal of Climate*, **12**, 3133–3155.
33. The Gent-McWilliams Skew-Flux, 1998: **S.M. Griffies**, *Journal of Physical Oceanography*, **28**, 831–841.
34. Isonutral diffusion in a z-coordinate ocean model, 1998: **S.M. Griffies**, A. Gnanadesikan, R. C. Pacanowski, V. Larichev, J. K. Dukowicz, and R. D. Smith, *Journal of Physical Oceanography*, **28**, 805–830. **NOAA/Oceanic and Atmospheric Research Laboratories 1999 Outstanding Scientific Paper Award.**
35. A Predictability Study of Simulated North Atlantic Multidecadal Variability, 1997: **S.M. Griffies** and K. Bryan, *Climate Dynamics*, **13**, 459–488.
36. Predictability of North Atlantic Multidecadal Climate Variability, 1997: **S.M. Griffies** and K. Bryan, *Science* **275**, 181–184. **NOAA/Environmental Research Laboratories 1997 Outstanding Scientific Paper Award.**

37. Reply to Comment on “Instability of the Thermohaline Circulation with Respect to Mixed Boundary Conditions”, 1996: J. R. Toggweiler, E. Tziperman, Y. Feliks, K. Bryan, **S.M. Griffies**, and B. Samuels, *Journal of Physical Oceanography*, **26**, 1106–1110.
38. A Linear Thermohaline Oscillator Driven by Stochastic Atmospheric Forcing, 1995: **S.M. Griffies** and E. Tziperman, *Journal of Climate*, **8**, 2440–2453.
39. Local and global aspects of domain wall space-times, 1993: M. Cvetič, **S.M. Griffies**, and H. H. Soleng, *Physical Review D* **48**, 2613–2634.
40. Nonextreme and ultraextreme domain walls and their global space-times, 1993: M. Cvetič, **S.M. Griffies**, and H. H. Soleng, *Physical Review Letters*, **71**, 670–673.
41. Cauchy horizons, thermodynamics and closed time-like curves in planar supersymmetric space-times, 1993: M. Cvetič, R. Davis, **S.M. Griffies**, and H. H. Soleng, *Physical Review Letters*, **70**, 1191–1194.
42. Nonperturbative stability of supergravity and superstring vacua, 1993: M. Cvetič, **S.M. Griffies**, and S.-J. Rey, *Nuclear Physics* **B389**, 3–24.
43. Gravitational effects in supersymmetric domain wall backgrounds, 1992: M. Cvetič and **S.M. Griffies**, *Physics Letters* **285B**, 27–34.
44. Static domain walls in $N = 1$ supergravity, 1992: M. Cvetič, **S.M. Griffies**, and S.-J. Rey, *Nuclear Physics* **B381**, 301–328.
45. Two skyrmion interaction for the Atiyah-Manton ansatz, 1990: A. Hosaka, **S.M. Griffies**, M. Oka, and R. D. Amado, *Physics Letters* **251B**, 1–5.

BOOKS, BOOK CHAPTERS, SPECIAL JOURNAL EDITIONS, AND CONFERENCE PROCEEDINGS

1. **Ocean Circulation & Climate**, 2nd Edition, 2012: edited by G. Siedler, J. Church, J. Gould, and **S.M. Griffies**, *in preparation*.
2. Special issue on the representation and parameterization of ocean mesoscale and submesoscale phenomena in numerical simulations, 2011: *Ocean Modelling*, edited by **S.M. Griffies**.
3. Problems and Prospects in Large-Scale Ocean Circulation Models, 2010: **S.M. Griffies**, A.J. Adcroft, H. Banks, C.W. Böning, E.P. Chassignet, G. Danabasoglu, S. Danilov, E. Deleersnijder, H. Drange, M. England, B. Fox-Kemper, R. Gerdes, A. Gnanadesikan, R.J. Greatbatch, R.W. Hallberg, E. Hanert, M.J. Harrison, S.A. Legg, C.M. Little, G. Madec, S. Marsland, M. Nikurashin, A. Pirani, H.L. Simmons, J. Schröter, B.L. Samuels, A.-M. Treguier, J.R. Toggweiler, H. Tsujino, G.K. Vallis, L. White. Proceedings of the “OceanObs09: Sustained Ocean Observations and Information for Society” Conference (Vol. 2), J. Hall, D.E. Harrison, and D. Stammer, editors. ESA Publication WPP-306. doi:10.5270/OceanObs09.cwp.38.
4. Decadal Climate Prediction: Opportunities and Challenges, 2010: J. W. Hurrell, T. Delworth, G. Danabasoglu, H. Drange, K. Drinkwater, **S.M. Griffies**, N. Holbrook, B. Kirtman, N. Keenlyside, M. Latif, J. Marotzke, G. A. Meehl, J. Murphy, T. Palmer, H. Pohlmann, T. Rosati, R. Seager, D. Smith, R. Sutton, A. Timmermann, K. E. Trenberth, J. Tribbia, and M. Visbeck. Proceedings of the “OceanObs09: Sustained Ocean Observations and Information for Society” Conference (Vol. 2), J. Hall, D.E. Harrison, and D. Stammer, editors. ESA Publication WPP-306. doi:10.5270/OceanObs09.cwp.45.
5. Synthesis and Assimilation Systems: Essential Adjuncts to the Global Ocean Observing System, 2010: M. Rienecker, T. Awaji, M. Balmaseda, B. Barnier, D. Behringer, M. Bell, M. Bourassa, P. Brasseur, L.-A. Breivik, J. Carton, J. Cummings, E. Dombrowsky, C. Fairall, N. Ferry, G. Forget, H. Freeland, W. Gregg, **S.M. Griffies**, K. Haines, D.E. Harrison, P. Heimbach, M. Kamachi, E. Kent, T. Lee, P.-Y. Le Traon, M. McPhaden, M. Martin, P. Oke, M. Palmer, E. Remy, A. Rosati, A. Schiller, D.M. Smith, D. Stammer, N. Sugiura, K.E. Trenberth, and Y. Xue. Proceedings of the “OceanObs09: Sustained Ocean Observations and Information for Society” Conference (Vol. 2), J. Hall, D.E. Harrison, and D. Stammer, editors. ESA Publication WPP-306. doi:10.5270/OceanObs09.pp.31.
6. Formulating the equations of an ocean model, 2008: **S.M. Griffies** and A.J. Adcroft. In **Ocean Modeling in an Eddy Regime**, Geophysical Monograph 177, M.W. Hecht and H. Hasumi, editors, Washington, DC: American Geophysical Union, 281–318.
7. Some ocean model fundamentals, 2005: **S.M. Griffies**, in **Ocean Weather Forecasting: an Integrated View of Oceanography**, edited by E.P. Chassignet and J. Verron, pages 19–73. Springer Publishing.
8. **Fundamentals of Ocean Climate Models**, 2004: **S.M. Griffies**. *Princeton University Press*. Princeton, USA. 518+xxxiv pages. More than 800 copies in circulation as of July 2010.
9. An Introduction to Linear Predictability Analysis, 2003: **S.M. Griffies**. In **Global Climate: Current Research and Uncertainties in the Climate System**. X. Rodo and R. A. Comín, editors, pages 55–79. Springer Publishing.

10. An Introduction to Ocean Climate Modeling. 2003: **S.M. Griffies**, In **Global Climate: Current Research and Uncertainties in the Climate System**. X. Rodo and R. A. Comín, editors. Springer.
11. Physical climate processes and feedbacks. In **Climate Change 2001: Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change**, 2001: T.F. Stocker, G. K. C. Clarke, H. Le Treut, R. S. Lindzen, V. P. Meleshko, R. K. Mugara, T. N. Palmer, R. T. Pierrehumbert, P. J. Sellers, K. E. Trenberth, J. Willebrand, R. B. Alley, O. E. Anisimov, C. Appenzeller, R. G. Barry, J. J. Bates, R. Bindshadler, G. B. Bonan, C. W. Bony, S. Bony, H. Bryden, M. A. Cane, J. A. Curry, T. Delworth, A. S. Denning, R. E. Dickinson, K. Echelmeyer, K. Emanuel, G. Flato, I. Fung, M. Geller, P. R. Gent, **S.M. Griffies**, I. Held, A. Henderson-Sellers, A. A. M. Hoesung, F. Hourdin, J. W. Hurrell, V. M. Kattsov, P. D. Killworth, Y. Kushnir, W. G. Large, M. Latif, P. Lemke, M. E. Mann, G. Meehl, U. Mikolajewicz, W. O'Hirok, C. L. Parkinson, A. Payne, A. Pitman, J. Polcher, I. Polyakov, V. Ramaswamy, P. J. Rasch, E. P. Salathé, C. Schar, R. W. Schmitt, T. G. Shepherd, B. J. Soden, R. W. Spencer, P. Taylor, A. Timmermann, K. Y. Vinnikov, M. Visbeck, S. E. Wjffels, and M. Wild. Cambridge, UK: Cambridge University Press, 418-470.
12. Domain walls in $N = 1$ supergravity, 1993: M. Cvetič and **S.M. Griffies**, 1993: in **Proceedings of the International Symposium on Black Holes, Membranes, Wormholes, and Superstrings**. (S. Kalara and D. Nanopoulos editors), World Scientific.

UNREFEREED REPORTS

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