

David Brian Stephenson

Scientific publications

My contribution to joint publications below is indicated by the use of asterisks:
*** the principal contribution, ** a major contribution, * a minor contribution.

Articles in press (in 07/2008):

1. Bøe, A.G., Stephenson, D.B. and Dahl, S.O. (2006): Point process methods for the diagnosis of extreme events in palaeoclimate records: Norwegian mega-floods in the Holocene, *Quaternary Science Reviews* (submitted)
2. Baldwin, M.P., D.B. Stephenson, and I.T. Jolliffe (2008): Spatial weighting and iterative projection methods for EOFs, *J. Climate* (in press).

Books, chapters in books, reviews of books, and memoranda

1. Stephenson, D.B. (2008): Chapter 1: Definition, diagnosis, and origin of extreme weather and climate events, In “Climate Extremes and Society”, R. Murnane and H. Diaz (Eds), Cambridge University Press, 348 pp.
2. Stephenson, D.B. (2008): An Introduction to Probability Forecasting, A. Troccoli et al. (eds.): *Seasonal Climate: Forecasting and Managing Risk*, Springer. pp. 93-129.
3. Mason, S.J. and D.B. Stephenson (2008): How do we know whether seasonal climate forecasts are any good?, A. Troccoli et al. (eds.): *Seasonal Climate: Forecasting and Managing Risk*, Springer. pp. 93-129.
4. Jolliffe, I.T. and D.B. Stephenson 2003: “*Forecast Verification: A Practitioner’s Guide in Atmospheric Science*” Editors: Wiley and Sons, 240 pp. **
5. Stephenson, D.B., H. Wanner, S. Brönnimann, and J. Luterbacher, 2002: The History of Scientific Research on the North Atlantic Oscillation. In: *The North Atlantic Oscillation*, (J. W. Hurrell, Y. Kushnir, G. Ottersen, M. Visbeck, Eds.), American Geophysical Union 2002, pp. 37-50. ***
6. Coelho, C.A.S., S. Pezzulli, M. Balmaseda, F. J. Doblas-Reyes and D.B. Stephenson, 2004: Skill of coupled model seasonal forecasts: A Bayesian assessment of ECMWF ENSO forecasts. *ECMWF Technical Memorandum* No. 426, 16pp. **

Refereed publications in international journals

1. Casati, B., L. J. Wilson, D.B. Stephenson, P. Nurmi, A. Ghelli, M. Pocerlich, U. Damrath, E. E. Ebert, B. G. Brown, S. Mason, (2008): Forecast verification: current status and future directions, *Meteorological Applications*, Special Issue: Forecast Verification, Vol. 15, 3-18. *
2. Coelho, C.A.S., C. A. T. Ferro, D. B. Stephenson, and D. J. Steinskog, 2008: Methods for Exploring Spatial and Temporal Variability of Extreme Events in Climate Data, *Journal of Climate*, Volume 21, Issue 10 (May 2008), pp. 2072–2092. **
3. Stephenson, D.B., B. Casati, C. A. T. Ferro, C. A. Wilson (2008): The extreme dependency score: a non-vanishing measure for forecasts of rare events, *Meteorological Applications*, Special Issue: Forecast Verification, Vol. 15, 41-50. ***

4. Doblas-Reyes, F.J., C. A. S. Coelho, D. B. Stephenson (2008): How much does simplification of probability forecasts reduce forecast quality? *Meteorological Applications*, Special Issue: Forecast Verification, Vol. 15, 155-162. **
5. Jolliffe, I.T. and Stephenson, D.B. (2008): Proper Scores for Probability Forecasts Can Never Be Equitable, *Monthly Weather Review*, Vol. 136, No. 4., 1505–1510. ***
6. Kvamsto, N-G., Song, Y., Seierstad, I., Sorteberg, A. and D.B. Stephenson, 2008: Clustering of cyclones in the ARPEGE general circulation model, *Tellus A*, Vol. 60, No. 3. (May 2008), pp. 547-556. *
7. Stephenson, D.B., Coelho, C.A.S. and Jolliffe, I.T. (2008): Two extra components in the Brier Score Decomposition, *Weather and Forecasting*, Vol. 23, No. 4., pp. 752–757. ***
8. Cox, P.M., and Stephenson, D.B. (2007): A changing climate for prediction, *Science*, 317, pp 208-208 **
9. Challinor, A.J., Wheeler, T.R., Craufurd, P.Q., Ferro, C.A.T. and Stephenson, D.B. (2007): Adaptation of crops to climate change through genotypic responses to mean and extreme temperatures, *Agriculture, Ecosystems and Environment*, 119, pp 190-204 *
10. Seierstad, I.A., Stephenson, D.B., and Kvamsto, N.G. (2007): How useful are teleconnection patterns for explaining variability in extratropical storminess?, *Tellus A*, 59 (2), pp 170–181 ***
11. Beniston, M., Stephenson, D.B., Christensen, O.B., Ferro, C.A.T., Frei, C., Goyette, S., Halsnaes, K., Holt, T., Jylha, K., Koffi, B., Palutikof, J., Scholl, R., Semmler, T. and Woth, K. (2007): Future extreme events in European climate: an exploration of regional climate model projections, *Climatic Change*, 81 (Supplement 1), pp 71-95 ***
12. Coelho, C.A.S., S. Pezzulli, M. Balmaseda, F.J. Doblas-Reyes, and D.B. Stephenson 2004: Forecast calibration and combination: A simple Bayesian approach for ENSO, *J. Climate*, 17, 1504-1516. **
13. Casati, B., G. Ross, and D.B. Stephenson, 2004: A new intensity-scale approach for the verification of spatial precipitation forecasts, *Met. Applications*, 11, 141-154. **
14. Göber, M., C.A. Wilson, S.F. Milton, D.B. Stephenson, 2004: Fairplay in the verification of operational quantitative precipitation forecasts, *J. Hydrology*, 288, 225-236. **
15. Kvamstø, N.G., P. Skeie, D.B. Stephenson 2004: Impact of Labrador sea-ice on the North Atlantic Oscillation, *International J. of Climatology*, 24, 603-612. **
16. Hollins, P.D., P.S. Kettlewell, M.D. Atkinson, D.B. Stephenson, J.M. Corden, W.M. Millington, J. Mullins, 2004: Relationship between airborne fungal spore concentration of *Cladosporium* and the summer climate at two sites in Britain, *Int. J. of Biometeorology*, 48, 137-141. *
17. Hannachi, A., D.B. Stephenson, K.R. Sperber, 2004: Corrigendum: Probability-based methods for quantifying nonlinearity in ENSO, *Climate Dynamics*, 22 1: 69-70. *
18. Stephenson, D.B., A. Hannachi, and A. O’Neill, 2003: On the existence of multiple climate regimes, *Quarterly Journal of the Royal Meteorological Society*, 130, 583-605. ***
19. Charlton, A.J., A. O’Neill, D.B. Stephenson, W.A. Lahoz, and M.P. Baldwin 2003: Can knowledge of the state of the stratosphere be used to improve statistical forecasts of the troposphere? *Quart. J. of Royal. Met. Soc.*, 129, 3205-3224. **
20. Baldwin, M.P., D.B. Stephenson, D.W.J. Thompson, T.J. Dunkerton, A.J. Charlton, and A. O’Neill 2003: Stratospheric Memory and Skill of Extended-Range Weather Forecasts, *Science* 301: 636-640. **
21. Doblas-Reyes, F.J., V. Pavan, and D.B. Stephenson 2003: Multi-model seasonal hindcasts of the North Atlantic Oscillation, *Climate Dynamics*, 21, 501-514. *
22. Stephenson, D.B. and V. Pavan, 2003: The North Atlantic Oscillation in coupled climate models: a CMIP1 evaluation, *Climate Dynamics*, 20 4: 381-399. ***

23. Kettlewell, P.S., D.B. Stephenson, M.D. Atkinson and P.D. Hollins, 2003: Summer rainfall and wheat grain quality: relationships with the North Atlantic Oscillation. *Weather* 58, 155-163. **
24. Junge, M.M. and D.B. Stephenson, 2003: Mediated and direct effects of the North Atlantic ocean on winter temperatures in northwest Europe, *Int. J. of Climatology*, 23, 3, 245-261. **
25. Hannachi, A., D.B. Stephenson, K.R. Sperber, 2003: Probability-based methods for quantifying nonlinearity in ENSO, *Climate Dynamics*, 20 2-3: 241-256. **
26. Panagiotopoulos, F., M. Shahgedanova, D.B. Stephenson, 2002: A Review of Northern Hemisphere winter-time teleconnection patterns, (European Research Course on Atmospheres ERCA: - Vol. 5 Ed. C. Boutron), *J. Phys IV*, 12, 1027-1047, EDP Sciences, France. **
27. Ambaum, M.H.P., B.J. Hoskins, and D.B. Stephenson 2002: Corrigendum: Arctic Oscillation or North Atlantic Oscillation?, *J. Climate*, 15, 553. **
28. Atkinson, M.D., P.S. Kettlewell, P.D. Hollins, D.B. Stephenson, and S.T. Parsons, 2002: Regression forecast of UK harvest wheat quality from the preceding winter North Atlantic Oscillation. *Experimental Long-Lead Forecast Bulletin*, 112. *
29. Ambaum, M.H.P., B.J. Hoskins, and D.B. Stephenson, 2001: Arctic Oscillation or North Atlantic Oscillation?, *J. Climate*, 14, 3495-3507. **
30. Wanner, H., S. Brönnimann, C. Casty, D. Gyalistras, J. Luterbacher, C. Schmutz, D.B. Stephenson, E. Xoplaki, 2001: North Atlantic Oscillation - concepts and studies, *Survey Geophysics*, 22, 321-381. **
31. Atkinson, M.D., P.S. Kettlewell, P.D. Hollins, D.B. Stephenson, and S.T. Parsons, 2001: Forecasting quality and breadmaking premium of wheat from the winter North Atlantic Oscillation. *Aspects of Applied Biology*, Vol. 64 (wheat quality), 127-128. *
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34. Thornes, J.E. and D.B. Stephenson 2001: How to judge the quality and value of weather forecast products, *Meteorological Applications*, 8, 307-314. **
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38. Douville, H., S. Planton, J.-F. Royer, D.B. Stephenson, S. Tyteca, L. Kergoat, S. Lafont, and R.A. Betts, 2000: "Importance of vegetation feedbacks in doubled-CO2 climate experiments", *J. Geophys. Res.*, Vol. 105, No. D11, pp. 14,841-14,861. *
39. Martin, G.M., K. Arpe, F. Chauvin, L. Ferranti, K. Maynard, J. Polcher, D.B. Stephenson, and P. Tschuck, 2000: Simulation of the Asian Summer Monsoon in Five European General Circulation Models, *Atmospheric Science Letters*, Vol. 1, Issue 1, pp. 37-55. DOI:10.1006/asle.2000.0004. *
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- oceanic GCMs using observed current and thermocline depth anomalies in the tropical Pacific during 1985-1992, *J. Marine Systems*, 24, pp. 249-275. *
41. Stephenson, D.B. 2000: Use of the “odds ratio” for diagnosing forecast skill, *Weather and Forecasting*, Vol. 15, No. 2, 221-232.
 42. Stephenson, D.B. and F.J. Doblas-Reyes 2000: Statistical methods for interpreting Monte Carlo ensemble forecasts, *Tellus*, 52A, 300-322. ***
 43. Stephenson, D.B., V. Pavan, and R. Bojariu, 2000: Is the North Atlantic Oscillation a random walk?, *International Journal of Climatology*, 20, 1-18. ***
 44. Stephenson, D.B., K. Rupa Kumar, F.J. Doblas-Reyes, J.-F. Royer, F. Chauvin, S. Pezzulli, 1999: Extreme daily rainfall events and their impact on Ensemble forecasts of the Indian monsoon, *Monthly Weather Review*, 127, 1954-1966. ***
 45. Burgers, G. and D.B. Stephenson, 1999: The “Normality” of El Nino, *Geophys. Res. Letters*, 26, 1027-1030. **
 46. Macias, J., D.B. Stephenson, and A. Kearsley, 1999: A basic reference state suitable for anomaly-coupled ocean-atmosphere climate models, *Appl. Math. Lett.*, 12, 1, 21-24pp. *
 47. Doblas-Reyes, F.J., M. Déqué, F. Valero and D.B. Stephenson, 1998: North Atlantic Wintertime Intraseasonal Variability and its Sensitivity to GCM Horizontal Resolution, *Tellus*, 50A, 573-595pp. *
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 53. Macias, J. and D.B. Stephenson, 1996: Seasonal and interannual ENSO variability in a Hybrid Coupled Model of the tropical Pacific, *Les Comptes Rendus de l'Academie des Sciences*, t. 324, Serie IIa, pages 269-276. **
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61. Bowler, K.C., C.B. Chalmers, R.D. Kenway, D. Roweth and D.B. Stephenson, 1988: Quenched hadron mass calculations using staggered fermions at $\beta = 6.15$ and $\beta = 6.30$, *Nuclear Physics*, B296, 732-756. *
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Total publications (published and in press):	65
Total single or lead-author publications:	19
Total citations for all papers:	more than 500 citations