

Literatur – gemeinsames Verzeichnis

- ALEXANDER, M. A., BHATT, U. S., WALSH, J. E., TIMLIN, M. S., MILLER, J. S., SCOTT, D. S., 2004: The atmospheric response to realistic Arctic sea ice anomalies in an AGCM during winter. *Journal of Climate* **17**, 890-905.
- ALHEIT, J., MÖLLMANN, C., DUTZ, J., KORNILOVS, G., LOEWE, P., MOHRHOLZ, V., WASMUND, N., 2005: Synchronous ecological regime shifts in the central Baltic and the North Sea in the late 1980's. *Journal of Marine Science* **62**, 1205-1215.
- AMBAUM, M.H.P., HOSKINS, B., STEPHENSON, D.B., 2001: Arctic Oscillation or North Atlantic Oscillation? *J. Climate* **14**, 3495-3507.
- ANGELL, J. K., KORSHOVER, J., 1983: Comparison of stratospheric warming following Agung and Chichon. *Mon. Weather Rev.* **111**, 2129-2135.
- ANGSTRÖM, A., 1935: Teleconnections of climatic changes in present time. *Geogr. Ann.* **17**, 242-258.
- ANONYMOUS (1855a) Correspondenz. Von dem Correspondenten in Neuherrnhut in Grönland, den 4. Juli 1855. *Calwer Missionsblatt* No. **20.**, 28. Jahrgang, 15. October 1855.
- ANONYMOUS (1855b) Warmes Wetter in Grönland während der grossen Kälte 1854/55 (Nach dem Calwer Missionsblatt, 15 Okt. 1855). *Petermann's Mittheilungen* **1**, 303.
- APPENZELLER, C., STOCKER, T.F., ANKLIN, M., 1998: North Atlantic Oscillation dynamics recorded in Greenland ice cores. *Science* **282**, 446-449.
- APPENZELLER, Ch., STOCKER, T. F., SCHMITTNER, A., 2000: Natural Climate Variability and climate change in the North Atlantic European Region: Change for surprise? *Integrated Assessment* **1**, 301-306.
- AUER, I., und 31 Koautoren, 2007: HISTALP – historical instrumental climatological surface time series of the Greater Alpine Region. *Int. J. Climatol.* **27**, 17-46.
- BADER, J., LATIF, M., 2003: The impact of decadal-scale Indian Ocean sea surface temperature anomalies on Sahelian rainfall and the North Atlantic Oscillation. *Geophysical Research Letters* **30** (22), 2169-2172.
- BALDWIN, M.P., CHENG, X., DUNKERTON, T.J., 1994: Observed correlations between winter mean tropospheric and stratospheric circulation anomalies. *Geophys. Res. Lett.* **21**, 1141-1144.
- BALDWIN, M.P., DUNKERTON, T. J., 1999: Propagation of the Arctic Oscillation from the stratosphere to the troposphere. *J. Geophys. Res.* **104**, 30937-30946.
- BALDWIN, M.P., DUNKERTON, T. J., 2001: Stratospheric harbingers of anomalous weather regimes. *Science* **294**, 581-584.
- BALDWIN, M.P., STEVENSON, D. B., THOMPSON, D.W.J., DUNKERTON, T. J., CHARLTON, A.J., O'NEILL, A., 2003: Stratospheric memory and skill of extended-range weather forecasts. *Science* **301**, 636-640.
- BARNSTON, A.G., LIVEZEY, R.E., 1987: Classification, seasonality and persistence of low frequency atmospheric circulation patterns. *Mon. Wea. Rev.* **115**, 1083-1126.
- BARSUGLI, J. J., BATTISTI, D. S., 1998: The basic effects of atmosphere-ocean thermal coupling on middle-latitude variability. *Journal of the Atmospheric Sciences* **55**, 477-493.
- BEAUGRAND, G., REID, P. C., IBANEZ, F., LINDLEY, J. A., EDWARDS, M., 2002: Reorganization of North Atlantic Marine Copepod Biodiversity and Climate. *Science* **296**, 1692-1694.
- BENEDICT, J. J., LEE, S., FELDSTEIN, S. B., 2004: A synoptic view of the North Atlantic Oscillation. *J. Atmos. Sci.* **61**, 121-144.
- BERGANT, K.L., KAJFEZ-BOGA, Z., CREPINSEK, 2002: The Use of EOF Analysis for Preparing the Phenological and Climatological Data for Statistical Downscaling-Case Study: The Beginning of Flowering of the Dandelion in Slovenia, in: Developments in Statistics Andrej Mrvar and Anuska Ferligoj (Editors). *Metodoloakizvezki*, **17**, Ljubljana.
- BJERKNES, J., 1964: Atlantic air-sea interaction. *Adv. Geophys.* **10**, 1-82.
- BLESSING, S., FRAEDRICH, K., JUNGE, M., KUNZ, T., LUNKEIT, F., 2005: Daily North-Atlantic Oscillation (NAO) index: Statistics and its stratospheric polar vortex dependence. *Meteorol. Zeitschrift* **14**, 763-769.
- BÖHM, R., AUER, I., BRUNETTI, M., MAUGERI, M., NANNI, T., SCHÖNER, W., 2001: Regional temperature variability in the European Alps: 1760-1998 from homogenized instrumental series. *Int. J. Climatol.* **21**, 1779-1801.
- BOVILE, B.A., 1984: The influence of the polar night jet on the tropospheric circulation in a GCM. *J. Atmos. Sci.* **41**, 1132-1142.
- BRADLEY, R.S., 1988: The Explosive Volcanic-Eruption Signal in Northern Hemisphere Continental Temperature Records. *Climatic Change* **12** (3), 221-243.
- BRAESICKE, P., BRÜHL, C., DAMERIS, M., DECKERT, R., EYRING, V., GIORGETTA, M.A., MANCINI, E., MANZINI, E., PITARI, G., PYLE, J.A., STEIL, B., 2008: A model inter-comparison analysing the link between column ozone and geopotential height anomalies in January. *Atmos. Chem. Phys.* **7**, 2519-2535.
- BRAZDIL, R., PFISTER, C., WANNER, H., VON STORCH, H., LUTERBACHER, J., 2005: Historical climatology in Europe – the state of the art. *Clim. Change* **70**, 363-430.
- BRETHERTON, C. S., BATTISTI, D. S., 2000. An interpretation of the results from atmospheric general circulation models forced by the time history of the observed sea surface temperature distribution. *Geophys. Res. Lett.* **27**, 767-770.
- BRÖNNIMANN, S., 2007. Impact of El Niño-Southern Oscillation on European climate. *Rev. Geophys.* **45**, RG3003, doi:10.1029/2006RG000199.
- BRÖNNIMANN, S., HOOD, L. L., 2003: Frequency of low-ozone events over north-western Europe in 1952-1963 and 1990-2000. *Geophys. Res. Lett.* **30**, 2118.
- BRÖNNIMANN, S., FREI, F., 2008: Defant's work on North Atlantic climate variability revisited. *Meteorol. Z.* **17**, 93-102.
- BRÖNNIMANN, S., LUTERBACHER, J., SCHMUTZ, C., WANNER, H., STAEHELIN, J., 2000: Variability of total ozone at Arosa, Switzerland, since 1931 related to atmospheric circulation indices. *Geophys. Res. Lett.* **27**, 2213-2216.
- BÜNTGEN, U., ESPER, J., FRANK, D.C., NICOLUSSI, K., SCHMIDHALTER, M., 2005: A 1052-year tree-ring proxy for Alpine summer temperatures. *Clim. Dyn.* **25**, 141-153.
- CASSOU, C., TERRAY, L., HURRELL, J.W., DESER, C., 2004: North Atlantic winter climate regimes: Spatial asymmetry, stationarity with time, and oceanic forcing. *Journal of Climate* **17**, 1055-1068.
- CASSOU, C., DESER, C., ALEXANDER, M.A., 2007: Investigating the Impact of reemerging Sea Surface Temperature Anomalies on the Winter Atmospheric Circulation over the North Atlantic. *Journal of Climate* **20**, 3510-3526.
- CASTY, C., HANDORF, D., SEMPF, M., 2005: Combined winter climate regimes over the North Atlantic/European sector 1766-2000. *Geophys. Res. Lett.* **32**, L13801, DOI:10.1029/2005GL022431.

- CASTY, C., RAIBLE, C.C., STOCKER, T.F., WANNER, H., LUTERBACHER, J., 2007: A European pattern climatology 1766-2000. *Clim. Dyn.* **29**, 791-805.
- CAYAN, D.R., 1992a: Latent and sensible heat flux anomalies over the Northern Oceans: Driving the sea surface temperature. *J. Phys. Ocean.* **22**, 859-881.
- CAYAN, D.R., 1992b: Latent and sensible heat flux anomalies over the Northern Oceans: The connection to monthly atmospheric circulation. *J. Climate* **5**, 354-369.
- CHARNEY, J.G., DRAZIN, P.G., 1961: Propagation of planetary-scale disturbances from the low into the upper atmosphere. *J. Geophys. Res.* **66**, 83-109.
- CHRISTIANSEN, B., 2000: A model study of the dynamical connection between the Arctic Oscillation and stratospheric vacillations. *J. Geophys. Res.* **105**, 29461 - 29474.
- CHRISTIANSEN, B., 2005: Downward propagation and statistical forecast of the near-surface weather. *J. Geophys. Res.* **10**, D14104, doi:10.1029/2004JD005431.
- CHRISTOPH, M., ULBRICH, U., OBERHUBER, J.M., ROECKNER, E., 2000: The Role of Ocean Dynamics for Low-Frequency Fluctuations of the NAO in a Coupled Ocean-Atmosphere GCM. *Journal of Climate* **13**, 2536-2549.
- COLLINS, M., BOTZET, M., CARRIL, A. F., DRANGE, H., JOUZEAU, A., LATIF, M., MASINA, S., OTTEERA, O., POHLMANN, H., SORTEBERG, A., SUTTON, R., TERRAY, L., 2006: Interannual to decadal climate predictability in the North Atlantic: A multimodel-ensemble study. **19**, 1195-1203.
- CONIL, S., LI, L.Z.-X., 2005: Linearity of the atmospheric response to North Atlantic SST and sea ice anomalies. *Journal of Climate* **18**, 1986-2003.
- COOK, E.R., D'ARRIGO, R.D., BRIFFA, K.R., 1998: The North Atlantic Oscillation and its expression in circum-Atlantic tree-ring chronologies from North America and Europe. *Holocene* **8**, 9-17.
- COOK, E.R., D'ARRIGO, R.D., MANN, M.E., 2002: A well-verified, multiproxy reconstruction of the winter north atlantic oscillation index since A.D. 1400. *J. Climate* **15**, 1754-1764.
- COOK, B.I., SMITH, T.M., MANN, M.E., (2005): The North Atlantic Oscillation and regional phenology prediction over Europe. *Global Change Biology* **11**, 919-926.
- COPPOLA, E., KUCHARSKI, F., GIORGI, F., MOLteni, F., 2005: Bimodality of the North Atlantic Oscillation in simulations with greenhouse gas forcing. *Geophys. Res. Lett.* **32**, DOI 10.129/2005GL024080.
- COPSEY, D., SUTTON, R., KNIGHT, J. R., 2007. Recent trends in sea level pressure in the Indian Ocean region. *Geophys. Res. Lett.* **33**, L19712, doi:10.1029/2006GL027175.
- CRANTZ, D., 1765: The History of Greenland; including an Account of the Mission Carried on by the United Brethren in that Country'. London, Longman, Hurst, Rees, Orme and Brown, 1820, 2 volumes, xi, 359; vi, 323 Seiten.
- CROCI-MASPOLI, M., SCHWIERZ, C., und DAVIES, H. C., 2007: Atmospheric blocking: Space-time links to the NAO and PNA. *Clim. Dynam.* **29**, 713-725.
- CUBASCH, U., BÜRGER, G., FAST, I., SPANGEHL, T., Wagner, S., 2005: The direct solar influence on climate: modeling the lower atmosphere. *Mem. Soc. Astron. It.* **76**, 810- 818.
- CULLEN, H.M., D'ARRIGO, R., COOK, E.R., MANN, M.E., 2000: Multiproxy reconstructions of the North Atlantic Oscillation, *Paleoceanography* **16**, 27-39.
- CURRY, R.G., MC CARTNEY, M.S., 2001: Ocean gyre circulation changes associated with the North Atlantic Circulation. *J. Phys. Oceanogr.* **31** (12), 3374-3400.
- CZAJA, A., FRANKIGNOUL, C., 2002: Observed impact of Atlantic SST on the North Atlantic Oscillation. *J. Clim.* **15**, 606-623.
- CZAJA, A., MARSHALL, J., 2000: On the interpretation of AGCMs responses to prescribed time-varying SST anomalies. *Geophysical Research Letters* **27**, 1927-1930.
- CZAJA, A., ROBERTSON, A. W., HUCK, T., 2003: The role of Atlantic ocean-atmosphere coupling in affecting the North Atlantic Oscillation. In *The North Atlantic Oscillation: Climatic significance and environmental impact. Geophys. Monogr.* **134**, 147-172.
- DANNMEYER, F., 1948: Zur Frage der Gegensätzlichkeit der kalten Winter in Grönland zu den warmen Wintern in Deutschland. *Polarforschung* **2**, 29.
- DEFANT, A., 1924: Die Schwankungen der atmosphärischen Zirkulation über dem Nordatlantischen Ozean im 25-jährigen Zeitraum 1881-1905. *Geogr. Ann.* **6**, 13-41.
- DELWORTH, T.L., MANABE, S., STOUFFER, R.J., 1993: Interdecadal variations of the thermohaline circulation in a coupled ocean-atmosphere model. *J. Climate* **6**, 1993-2011.
- DEMARÉE, G.R., und OGILVIE, A.E.J., 2008: The Moravian missionaries at the Labrador coast and their centuries-long contribution to instrumental meteorological observations. *Clim. Change* **91**, 423-450.
- DESER, C., BLACKMON, M.L., 1993: Surface climate variations over the North Atlantic ocean during winter: 1900-1989. *J. Climate* **6**, 1743-1753.
- DESER, C., 2000: On the teleconnectivity of the Arctic Oscillation. *Geophys. Res. Lett.* **27**, 779-782.
- DESER, C., WALSH, J.E., TIMLIN, M.S., 2000: Arctic sea ice variability in the context of recent atmospheric circulation trends. *Journal of Climate*, **13**, 617-633.
- DESER, C., MAGNUSDOTTIR, G., SARAVANAN, R., PHILLIPS, A., 2004: The effects of North Atlantic SST and sea ice anomalies on the winter circulation in CCM3. Part II: Direct and indirect components of the response. *Journal of Climate* **17**, 877-889.
- DESER, C., TOMAS, R.A., PENG, S., 2007: The transient atmospheric circulation response to North Atlantic SST and sea ice anomalies. *Journal of Climate* **20**, 4751-4767.
- DOBLAS-REYES, F.J., PAVAN, V., STEPHENSON, D.B., 2003: Multi-model seasonal hindcasts of the NAO. *Climate Dynamics* **21**, 501-514.
- DOBSON, G.M.B., HARRISON, D.N., 1926: Observations of the amount of ozone in the Earth's atmosphere and its relation to other geophysical conditions, *Proc. Roy. Soc. Ser. A* **110**, 660-693.
- DOKULIL, M.T., JAGSCH, A., GEORGE, G.D., ANNEVILLE, O., JANKOWSKI, T., WAHL, B., LENHART, B., BLENNCKNER, T., TEUBNER, K., 2006: Twenty years of spatially coherent deepwater warming in lakes across Europe related to the North Atlantic Oscillation, *Limnol. Oceanogr.* **51**, 2006, 2787-2793.
- DORN, W., DETHLOFF, K., RINKE, A., ROECKNER, E., 2003: Competition of NAO regime changes and increasing greenhouse gases and aerosols with respect to Arctic climate projections. *Climate Dynamics* **21**, 447-458.
- DOVE, H.W., 1839: Über die geographische Verbreitung gleichartiger Witterungserscheinungen. Erste Abhandlung: Über die nicht periodischen Änderungen der Temperaturverteilung auf der Oberfläche der Erde. *Abhandlungen der Königlichen Akademie der Wissenschaften in Berlin*, 287-415.
- DOVE, H.W., 1841: Über die nicht periodischen Änderungen der Temperaturverteilung auf der Oberfläche der Erde. *Abhand-*

- lungen der Königlich Akademien der Wissenschaften in Berlin, 305-440.
- DRIJFHOUT, S.S., HAZELEGER, W., 2007: Detecting Atlantic MOC changes in an ensemble of climate change simulations. *J. Climate* **20**, 1571-1582.
- DRINKWATER, K.F., BELGRANO, A., BORJA, A., CONVERSI, A., EDWARDS, M., GREENE, C.H., OTTERSEN, G., PERSHING, A.J., WALKER, H., 2003: The Response of Marine Ecosystems to Climate Variability Associated With the North Atlantic Oscillation, in *The North Atlantic Oscillation: Climatic Significance and Environmental Impact* Geophysical Monograph, American Geophysical Union.
- DURANCE, I., ORMEROD, S.J., 2007: Climate change effects on upland stream macroinvertebrates over a 25-year period, *Global Change Biology* **13**, 942-957.
- EDEN, C., GREATBATCH, R.J., 2003: A Damped Decadal Oscillation in the North Atlantic Climate System. *Journal of Climate* **16**, 4043-4060.
- EDEN, C., WILLEBRAND, J., 2001: Mechanisms of interannual to decadal variability of the North Atlantic Circulation. *Journal of Climate* **14**, 2266-2280.
- EDEN, C., JUNG, T., 2001: North Atlantic Interdecadal Variability: Oceanic Response to the North Atlantic Oscillation (1865-1997). *Journal of Climate* **14**, 676-691.
- EGEDE, H., 1745: History of Greenland - A description of Greenland: shewing the natural history, situation, boundaries, and face of the country; the nature of the soil; the rise and progress of the old Norwegian colonies; the ancient and modern inhabitants; their genius and way of life, and produce of the soil; their plants, beasts, fishes, &c.' (translated from the Danish), *Pickering Bookseller, Picadilly, London*, 220 Seiten.
- EXNER, F.M., 1913: Übermonatliche Witterungsanomalien auf der nördlichen Erdhälfte im Winter. *Sitzungsberichte d. Kaiserl. Akad. der Wissenschaften* **122**, 1165-1241.
- EXNER, F.M., 1924: Monatliche Luftdruck- und Temperaturanomalien auf der Erde. *Sitzungsberichte d. Kaiserl. Akad. der Wissenschaften* **133**, 307-408.
- FANG, Z., WALLACE, J.M., 1994: Arctic sea ice variability on a timescale from weeks and its relation to atmospheric forcing. *Journal of Climate* **7**, 1897-1913.
- FELDSTEIN, S. B., 2000: The timescale, power spectra, and climate noise properties of teleconnection patterns. *J. Climate* **13**, 4430-4440.
- FELDSTEIN, S. B., 2003: The dynamics of NAO teleconnection pattern growth and decay. *Q. J. R. Meteorol. Soc.* **129** 901-924.
- FELDSTEIN, S.B., FRANZKE, C., 2006: Are the North Atlantic Oscillation and the Northern Annular Mode distinguishable? *J. Atmos. Sci.* **63**, 2915-2930.
- FISCHER, E.M., LUTERBACHER, J., ZORITA, E., TETT, S.F.B., CASTY, C., WANNER, H., 2007: European climate response to tropical volcanic eruptions over the last half millennium, *Geophys. Res. Lett.* **34**, L05707, doi:10.1029/2006GL027992.
- FLETCHER, C.G., SAUNDERS, M.A., 2006: Winter North Atlantic Oscillation hindcast skill: 1900-2001. *J. Clim.* **19**, 5762-5776.
- FRAEDRICH, K., 1994. ENSO impact on Europe? *Tellus*, **46A**, 541-552.
- FRAEDRICH, K., 1996: Das Lorenz-Modell: Ein Paradigma für Wetter- und Vorhersagbarkeit. *Promet* **25**, 62-79.
- FRAEDRICH, K., KIRK, E., LUKSCH, U., LUNKEIT, F., 2003: Ein Zirkulationsmodell für Forschung und Lehre. *Promet* **29**, 34-48.
- FRANZKE, C., FRAEDRICH, K., LUNKEIT, F., 2000: Low frequency variability in a simplified atmospheric global circulation model: Storm track induced 'spatial resonance'. *Quart. J. Roy. Meteorol. Soc.* **126**, 2691-2708.
- FRANZKE, C., FRAEDRICH, K., LUNKEIT, F., 2001: Teleconnections and low frequency variability in idealised experiments with two storm tracks. *Quart. J. Roy. Meteorol. Soc.* **127**, 1321-1339.
- FRANZKE, C., LEE, S., FELDSTEIN, S.B., 2004: Is the North Atlantic Oscillation a breaking wave? *J. Atmos. Sci.* **61**, 145-160.
- FRANZKE, C., FELDSTEIN, S.B., 2005: The continuum and dynamics of Northern Hemisphere teleconnection patterns. *J. Atmos. Sci.* **62**, 3250-3267.
- FRISIUS, T., LUNKEIT, F., FRAEDRICH, K., JAMES, I.A., 1998: Storm-track organization and variability in a simplified atmospheric global circulation model (SGCM). *Quart. J. Roy. Meteorol. Soc.* **124**, 1019-1043.
- FYFE, J.C., BOER, G.J., FLATO, G.M., 1999: The Arctic and Antarctic oscillations and their projected changes under global warming. *Geophys. Res. Lett.* **26**, 1601-1604.
- GALTON, F., 1888: Co-relations and their Measurement, chiefly from Anthropometric Data. *Proceedings of the Royal Society of London* **45**, 135-145.
- GERTEN, D., ADRIAN, R., 2000: Climate-driven changes in spring plankton dynamics and the sensitivity of shallow polymictic lakes to the North Atlantic Oscillation, *Limnol. Oceanogr.* **45**, 1058-1066
- GILBERT, L.W., 1819: Physikalisch Geographische Nachrichten aus dem nördlichen Polarmeere. Als Anhang zu den Aufsätzen im vorigen Hefte. *Gilbert's Annalen (Annalen der Physik)* **62**, 137-166.
- GILLETT, N.P., 2005: Northern Hemisphere circulation. *Nature* **437**, 496.
- GILLETT, N.P., ALLEN, M.R., MC DONALD, R.E., SENIOR, C.A., SHINDELL, D.T., SCHMIDT, G.A., 2002: How linear is the Arctic Oscillation response to greenhouse gases. *J. Geophys. Res.* **107**, No. D3, 4022, doi:10.1029/2001JD000589.
- GILLETT, N.P., THOMPSON, D.W.J., 2003: Simulation of recent Southern Hemisphere climate change. *Science* **302**, 273-275.
- GILLETT, N.P., ALLEN, M.R., WILLIAMS, K.D., 2002: The role of stratospheric resolution in simulating the Arctic Oscillation response to greenhouse gases. *Geophys. Res. Lett.* **29**, No. 10, 1500, doi:10.1029/2001GL014444.
- GLOWIENKA-HENSE, R., 1990: The North Atlantic Oscillation in the Atlantic-European SLP. *Tellus* **42A**, 497-507.
- GLOWIENKA, R., (1985): Studies on the variability of Icelandic Low and Azores High between 1881 and 1983. *Beitr. Phys. Atmosph.* **58**, 160 -170.
- GLUECK, M.F., STOCKTON, C.W., 2001: Reconstruction of the North Atlantic Oscillation. *Int. J. Climatol.* **21**, 1453-1465.
- GONZÁLES-ROUCO, F.F., BELTRAMI, H., ZORITA, E., VON STORCH, H., 2006: Simulation and inversion of borehole temperature profiles in surrogate climates: Spatial distribution and surface coupling. *Geophys. Res. Lett.* **33**, L01703, doi:10.1029/2005GL024693.
- GORMSEN, A.K., HENSE, A., TOLDAM-ANDERSEN, T.B., BRAUN, P., 2005: Large scale climate variability and its effects on mean temperature and flowering time of Prunus and Betula in Denmark, *Theor. Appl. Climatol.* **82**, 41-50.
- GRAF, H.F., 1992: Arctic radiation deficit and climate variability. *Climate Dyn.* **7**, 19-28.

- GRAF, H.F., KIRCHNER, I., ROBOCK, A., SCHULT, I., 1993: Pinatubo eruption winter climate effects: model versus observations. *Clim. Dyn.* **9**, 81-93.
- GRAF, H., WALTER, K., 2005. Polar vortex controls coupling of North Atlantic ocean and atmosphere. *Geophys. Res. Lett.* **32**, L01704, doi:10.1029/2004GL020664.
- GREATBATCH, R.J., JUNG, T., 2007: Local versus Tropical Heating and Winter North Atlantic Oscillation. *Journal of Climate* **20**, 2058-2075.
- GROISMAN, P.Y., 1992: Possible Regional Climate Consequences of the Pinatubo Eruption - an Empirical-Approach, *Geophys. Res. Lett.* **19** (15), 1603-1606.
- GRONAU, K.L., 1811: Das Klima der Polarländer, in H.F. Flörke. Repertorium des Neuesten und Wissenwürdigsten aus der gesamten Naturkunde. Berlin.
- HADJINICOLAOU, P., JRRAR, A., PYLE, J.A., BISHOP, L., 2002: The dynamically driven longterm trend in stratospheric ozone over northern middle latitudes, *Q. J. Royal Met. Soc.* **128**, 1393-1412.
- HAIGH, J. D., 1999: A GCM study of climate change in response to the 11-year solar cycle, *Q. J. R. Meteorol. Soc.* **125**, 871-892.
- HAINÉ, T., 2008: What did the Viking discoverers of America know of the North Atlantic Environment? *Weather* **63**, 60-65.
- HANN, J., 1890: Zur Witterungsgeschichte von Nord-Grönland, Westküste. *Meteor. Zeitschrift* **7**, 109-115.
- HASTENRATH, S., 2006: Tropische Klimavorhersage. *Promet* **32**, 154-160.
- HELLAND-HANSEN, B., NANSEN, F., 1920: Temperature variations in the North Atlantic ocean and in the atmosphere. *Smithsonian Misc. Collections* **70**, 406.
- HILDEBRANDSSON, H.H., 1897: Quelques recherches sur les centres d'action de l'atmosphère. Kongl. *Svenska Vetenskaps-akad. Handl.* **29**, Fasc. 3.
- HILMER, M., 2001: A Model Study of Arctic Sea Ice Variability. Berichte aus dem Institut für Meereskunde an der *Christian-Albrechts-Universität Kiel* Nr. **320**, 157 Seiten.
- HILMER, M., JUNG, T., 2000: Evidence for a recent change in the link between the North Atlantic Oscillation and Arctic sea ice export. *Geophysical Research Letters* **27** (15), 989-992
- HOERLING, M.P., HURRELL, J.W., XU, T., 2001: Tropical origins for recent North Atlantic climatic change. *Science* **292**, 90-92.
- HOERLING, M.P., HURRELL, J.W., XU, T., BATES, G.T., PHILLIPS, A.S., 2004: Twentieth century North Atlantic climate change. Part II: Understanding the effect of Indian Ocean warming. *Clim. Dyn.* **23**, 391-405.
- HOOD, L., ROSSI, S., BEULEN, M., 1999: Trends in lower stratospheric zonal winds, Rossby wave breaking behavior, and column ozone at northern midlatitudes. *J. Geophys. Res.* **104** (D20), 24321- 24340.
- HU, Z. Z., WU, Z. H., 2004: The intensification and shift of the annual North Atlantic Oscillation in a global warming scenario simulation. *Tellus A* **56**, 112-124.
- HUEBENER, H., CUBASCH, U., LANGEMATZ, U., SPANGEHL, T., NIEHÖRSTER, F., FAST, I., KUNZE, M., 2007: Ensemble climate simulations using a fully coupled ocean-troposphere-stratosphere general circulation model. *Phil. Trans. R. Soc. A* **365**, 2089-2101.
- HÜPPOP, O., HÜPPOP, K., 2003: North Atlantic Oscillation and timing of spring migration in birds, *Proc. R. Soc. Lond. B* **270**, 233-240.
- HURRELL, J.W., KUSHNIR, Y., VISBECK, M., OTTERSEN, G., 2003: An Overview of the North Atlantic Oscillation. - In Hurrell J., Y. Kushnir, G. Ottersen, M. Visbeck (Eds.), *The North Atlantic Oscillation. Climatic Significance and Environmental Impact. Geophysical Monograph Series* **134**, 1-35.
- HURRELL, J.W., 1995: Decadal trends in the North Atlantic Oscillation: Regional temperatures and precipitation. *Science* **269**, 676-679.
- HURRELL, J.W., VAN LOON, H., 1997: Decadal variations in climate associated with the North Atlantic Oscillation. *Clim. Change* **36**, 301-326.
- HURRELL, J.W., HOERLING, M.P., PHILLIPS, A.S., XU, T., 2004: Twentieth century north Atlantic climate change. Part I: assessing determinism. *Climate Dynamics*, **23** (3-4), 371-389.
- IPCC, 2007: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z., Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, USA.
- JAMES, I.N., JAMES, P.M., 1989: Ultra-low-frequency variability in a simple atmospheric circulation model. *Nature* **342**, 53-55.
- JONES, P.D., JONSSON, T., WHELLER, D., 1997: Extension to the North Atlantic Oscillation using early instrumental pressure observations from Gibraltar and south-west Iceland. *Int. J. Climatol.* **17**, 1433-1450.
- JONES, P.D., OSBORN, T.J., BRIFFA, K.R., 2003: Pressure-based measures of the North Atlantic Oscillation (NAO): A comparison and an assessment of changes in the strength of the NAO and in its influence on surface climate parameters. In: *The North Atlantic Oscillation. Climatic Significance and Environmental Impact* (Eds. Hurrell, J.W., Kushnir, Y., Ottersen, G., and M., Visbeck). *Geophysical Monograph* **134**, 51-62.
- JONES, P. D., MANN, M. E., 2004: Climate over past millennia. *Rev. Geophys.* **42**, RG2002, doi: 10.1029/2003RG000143.
- JUNG, T., HILMER, M., 2001: The link between the North Atlantic Oscillation and Arctic sea ice export through Fram Strait. *Journal of Climate* **14**, 3932-3943.
- JUNG, T., HILMER, M., RUPRECHT, E., KLEPPEK, S., GULEV, S.K., ZOLINA, O., 2003: Characteristics of the recent eastward shift of interannual NAO variability. *Journal of Climate* **15**, 3371-3382.
- KAPALA, A., MÄCHEL, H., 2001: Ein möglicher Einflussmechanismus auf die interannuelle Variabilität Nordatlantik Oszillation im Winter. In: *Österreichische Beiträge zu Meteorologie und Geophysik* **27** (Publ. Nr. 339; DACH 2001).
- KEENLYSIDE, N., LATIF, M., JUNGCLAUS, J., KORNBLUEH, L., ROECKNER, E., 2008: Advancing Decadal-Scale Climate Prediction in the North Atlantic Sector. *Nature* **453**, 84-88.
- KELLY, P.M., JONES, P.D., JIA, P.Q., 1996: The spatial response of the climate system to explosive volcanic eruptions, *Int. J. Climatol.* **16** (5), 537-550.
- KETTLEWELL, P.S., SOTHERN, R., BAND, KOUKKARI, W.L., 1999: UK wheat quality and economic value are dependent on the North Atlantic Oscillation. *Journal of Cereal Science* **29**, 205-209.
- KETTLEWELL, P.S., STEPHENSON, D.B., ATKINSON, DAND, M., HOLLINS, P.D., 2003: Summer rainfall and wheat grain quality: relationships with the North Atlantic Oscillation. *Weather* **58**, 155-163.
- KIEHL, J.T., GENT, P.R., 2004: The Community Climate System Model, version 2. *J. Climate* **17**, 3666 - 3682.

- KINDEM, I.T., CHRISTIANSEN, B., 2001: Tropospheric response to stratospheric ozone loss. *Geophys. Res. Lett.* **28**, 1547-1550.
- KING, M.P., KUCHARSKI, F., 2006: Observed low-frequency covariabilities between the tropical oceans and the North Atlantic Oscillation in the twentieth century. *Journal of Climate* **19**, 1032-1041.
- KIRCHNER, I., STENCHIKOV, G.L., GRAF, H.F., ROBOCK, A., ANTUNA, J.C., 1999: Climate model simulation of winter warming and summer cooling following the 1991 Mount Pinatubo volcanic eruption. *J Geophys. Res.* **104** (D16), 19039-19055.
- KITOH, A., KOIDE, H., KODERA, K., YUKIMOTO, S., NODA, A., 1996: Interannual variability in the stratospheric-tropospheric circulation in a coupled ocean-atmosphere GCM. *Geophys. Res. Lett.* **23**, 543-546.
- KLEIN, P., 1915: Meteorologia ogolna. Skad Glowny w Ksiegarni Gebethnera I Wolffa, translated by R. Merecki, Warszawa, 437 + 7 Seiten.
- KOCH, G., WERNLI, H., SCHWIERZ, C., STAEHELIN, J., PETER, T., 2005: A composite study on the structure and formation of ozone miniholes and minihighs over central Europe. *Geophys. Res. Lett.* **32**, No. 12, L12810 10.1029/2004GL020262
- KODERA, K., 1994: Influence of volcanic eruptions on the troposphere through stratospheric dynamical processes in the northern hemisphere winter. *J. Geophys. Res.* **99**, 1273-1282.
- KODERA, K., 2002: Solar cycle modulation of the North Atlantic Oscillation: Implication in the spatial structure of the NAO. *Geophys. Res. Lett.* **29**, 1218, doi:10.1029/2001GL014557.
- KODERA, K., CHIBA, M., KOIDE, H., KITOH, A., NIKAIKIDOU, Y., 1996: Interannual variability of the winter stratosphere and troposphere in the Northern Hemisphere. *J. Meteor. Soc. Japan* **74**, 365 - 382.
- KODERA, K., KOIDE, H., YOSHIMURA, H., 1999. Northern Hemisphere winter circulation associated with the North Atlantic Oscillation and stratospheric polar-night jet. *Geophys. Res. Lett.* **26**, 443-446.
- KODERA, K., KURODA, Y., 2002: Dynamical response to the solar cycle. *J. Geophys. Res.* **107** (D24), 4749, doi:10.1029/2002JD002224.
- KODERA, K., KURODA, Y., 2004: Two teleconnection patterns involved in the North Atlantic/Arctic Oscillation. *Geophys. Res. Lett.* **31**, L20201, doi:10.1029/2004GL020933.
- KRAHMANN, G., VISBECK, M., 2003: Arctic Ocean sea ice response to Northern Annular Mode-like wind forcing. *Geophys. Res. Lett.* **30** (15), 1793, doi:10.1029/2003GL017354
- KRAHMANN, G., VISBECK, M., REVERDIN, G., 2001: Formation and propagation of temperature anomalies along the North Atlantic Current. *Journal of Physical Oceanography* **31**, 1287-1303.
- KUCHARSKI, F., MOLTENI, F., 2003: On linearities in a forced North Atlantic Oscillation. *Climate Dynamics* **21**, 677-687.
- KUCHARSKI, F., MOLTENI, F., BRACCO, A., 2006: Decadal interactions between the western tropical Pacific and the North Atlantic Oscillation. *Climate Dynamics* **26**, 79-91.
- KURODA, Y., KODERA, K., 2005: Solar cycle modulation of the Southern Annular Mode. *Geophys. Res. Lett.* **32**, L13802, doi:10.1029/2005GL022516.
- KUSHNIR, Y., 1994. Interdecadal variations in North Atlantic sea surface temperature and associated atmospheric conditions. *Journal of Climate* **7**, 141-157.
- KUSHNIR, Y., ROBINSON, W.A., BLADE, I., HALL, N. M., PENG, S., SUTTON, R., 2002: Atmospheric GCM response to extratropical SST anomalies: Synthesis and Evaluation. *J. Clim.* **15**, 2233 - 2256.
- KUSHNIR, Y., WALLACE, J.M., 1989: Low-frequency variability in the Northern Hemisphere winter. *J. Atmos. Sci.* **46** 3122 - 3142.
- KÜTTEL, M., XOPLAKI, E., GALLEGRO, D., LUTERBACHER, J., GARCIA-HERRERA, R., ALLAN, R., BARRIEN-DOS, M., JONES, P.D., WHEELER, D., WANNER, H., 2008: The importance of ship log data: reconstructing North Atlantic, European and Mediterranean sea level pressure fields back to 1750. *Clim. Dynam.* in Begutachtung
- KUTZBACH, J.E., 1970: Large-Scale Features of Monthly Mean Northern Hemisphere Anomaly Maps of Sea-Level Pressure. *Mon. Wea. Rev.* **98**, 708-716.
- KWOK, R., ROTHROCK, D.A., 1999: Variability of Fram Strait ice flux and the North Atlantic Oscillation. *Journal of Geophysical Research* **104**, 5177-5189.
- LABITZKE, K., 1965: On the mutual relation between stratosphere and troposphere during periods of stratospheric warmings in winter. *J. Appl. Meteor.* **4**, 91-99.
- LAMB, P.J., PEPPLER, R.A., 1987: North Atlantic Oscillation: Concept and application. *Bull. Amer. Meteor. Soc.* **68**, 1217-1225.
- LANGEMATZ, U., CLAUSSNITZER, A., MATTHES, K., KUNZE, M., 2005: the climate during the maunder minimum: a simulation with the Freie Universität Berlin climate middle atmosphere 34 model (FUB-CMAM). *J. Atmos. Sol. Terr. Phys.* **67**, 55-69.
- LATIF, M., 2001: Tropical Pacific/Atlantic Interactions at multi-decadal timescales. *Geophys. Res. Lett.* **28**, 539-542.
- LATIF, M., 2006: Das El Nino/Southern Oscillation Phänomen. *Promet* **32**, 123-129.
- LATIF, M., COLLIN, M., POHLMANN, H., KEENLYSIDE, N., 2006: A review of predictability studies of Atlantic sector climate on decadal time scales. *J. Clim.* **19**, 5971-5987.
- LEAN, J.L., WANK, Y.M., SHEELEY JR., N.R., 2002: The effect of increasing solar activity on the Sun's total and open magnetic flux during multiple cycles: Implications for solar forcing of climate. *Geophys. Res. Lett.* **29**, L2224, doi:10.1029/2002GL015880.
- LECKEBUSCH, G.C., ULBRICH, U., 2004: On the relationship between cyclones and extreme windstorm events over Europe under climate change. *Global and Planetary Change* **44**, 181-193.
- LECKEBUSCH, G.C., ULBRICH, U., FRÖHLICH, L., PINTO, J.G., 2007: Property loss potentials for European midlatitude storms in a changing climate. *Geophys. Res. Lett.* **34**, L05703, doi:10.1029/2006GL027663.
- LEGUTKE, S., VOSS, 1999: The Hamburg atmosphere-ocean coupled circulation model ECHO-G. *Technical report* No. **18**, German Climate Computer Centre (DKRZ), Hamburg, Germany, 62 pp.
- LOEWE, F., 1937: A period of warm winters in Western Greenland and the temperature see-saw between Western Greenland and Central Europe. *Q. J. Roy. Meteorol. Soc.* **63**, 365-371.
- LORENZ, E., 1963: Deterministic non-periodic flow. *J. Atm. Sc.*, **20**, 130-141.
- LORENZ, E.N., 1951: Seasonal and irregular variations of the Northern Hemisphere sea-level pressure profile. *J. Meteorol.* **8**, 52-59.
- LORENZ, E.N., 1967: The Nature and Theory of the General Circulation of the Atmosphere. World Meteorological Organization (WMO), Geneva.

- LUO, D., GONG, T., 2006: A possible mechanism for the eastward shift of the interannual NAO action centers in last three decades. *Geophys. Res. Lett.* **33**, DOI:10.1029/2006GL027860.
- LUTERBACHER, J., XOPLAKI, E., DIETRICH, D., JONES, P.D., DAVIES, T.D., PORTIS, D., GONZALEZ-ROUCO, J.F., VON STORCH, H., GYALISTRAS, D., CASTY, C., WANNER, H., 2002a: Extending NAO reconstructions back to 1500. *Atmos. Sci. Lett.* **2**, 114-124.
- LUTERBACHER, J., SCHMUTZ, C., GYALISTRAS, D., XOPLAKI, E., und WANNER, H., 1999: Reconstruction of monthly NAO and EU indices back to AD 1675. *Geophys. Res. Lett.* **26**, 2745-2748.
- LUTERBACHER, J., DIETRICH, D., XOPLAKI, E., GROSJEAN, M., und WANNER, 2004: European seasonal and annual temperature variability, trends and extremes since 1500. *Science* **303**, 1499-1503.
- LUTERBACHER, J., SCHMUTZ, C., GYALISTRAS, D., XOPLAKI, E., WANNER, H., 1999: Reconstruction of monthly NAO and EU indices back to AD 1675. *Geophys. Res. Lett.* **26**: 2745-2748.
- LUTERBACHER, J., RICKLI, R., XOPLAKI, E., TINGUELY, C., BECK, C., PFISTER, C., WANNER, H., 2001: The Late Maunder Minimum (1675-1715) - A Key Period for Studying Decadal Scale Climatic Change in Europe. *Clim. Change* **49**, 441-462.
- LUTERBACHER, J., XOPLAKI, E., DIETRICH, D., JONES, P. D., DAVIES, T. D., PORTIS, D., GONZÁLEZ-ROUCO, J. F., VON STORCH, H., GYALISTRAS, D., CASTY, C., WANNER, H., 2002a: Extending NAO reconstructions back to 1500. *Atmos. Sci. Lett.* **2**, 114-124.
- LUTERBACHER, J., XOPLAKI, E., DIETRICH, D., RICKLI, R., JACOBEIT, J., BECK, C., GYALISTRAS, D., SCHMUTZ, C., WANNER, H., 2002b: Reconstruction of Sea-Level Pressure Fields over the Eastern North Atlantic and Europe Back to 1500. *Clim. Dyn.* **18**, 545-561.
- MAAK, K., VON STORCH, H., 1997: Statistical downscaling of monthly mean air-temperature to the beginning of flowering of *Galanthus nivalis* L. in Northern Germany, *Intern. J. Biometeorology* **45**, 5-12.
- MÄCHEL, H., KAPALA, A., FLOHN, H., 1998: Behaviour of the centres of action above the Atlantic since 1881. Part I: Characteristics of seasonal and interannual variability, *Int. J. Climatol* **18**, 1-22.
- MAGNUSDOTTIR, G., DESER, C., SARAVANAN, R., 2004: The effects of North Atlantic SST and sea ice anomalies on the winter circulation in CCM3. Part I: Main features and storm track characteristics of the response. *Journal of Climate* **17**, 857-876.
- MANGANELLO, J.V., 2007: The influence of sea surface temperature anomalies on low frequency variability of the North Atlantic Oscillation. *Climate Dynamics* **30**, 621-641.
- MAO, J., ROBOCK, A., 1998: Surface air temperature simulations by AMIP general circulation models: Volcanic and ENSO signals and systematic errors. *J. Climate*, 11, 1538-1552.
- MARSHALL, J., JOHNSON, H., GOODMAN, J., 2001a: A Study of the Interaction of the North Atlantic Oscillation with Ocean Circulation. *Journal of Climate* **14**, 1399-1421.
- MARSHALL, J., Co-authors, 2001b: North Atlantic climate variability: Phenomena, impacts and mechanisms. *Int. J. Climatol.* **21**, 1863-1898.
- MASS, C.F., PORTMAN, D.A., 1989: Major volcanic eruptions and climate: A critical evaluation. *J. Climate* **2**, 566-593.
- MATSUNO, T., 1971: A Dynamical model of the stratospheric sudden warming. *J. Atmos. Sci.* **28**, 1479-1494.
- MATTHES, K., KURODA, Y., KODERA, K., LANGEMATZ, U., 2006: Transfer of the Solar Signal from the Stratosphere to the Troposphere: Northern Winter. *J. Geophys. Res.* **111**, D06108, doi:10.1029/2005JD006283.
- MC HUGH, M.J., ROGERS, J.C., 2005: Multi-model representation of the North Atlantic Oscillation in the 20th and 21st centuries. *Geophys. Res. Lett.* **32**, DOI10.1029/2005GL023679.
- MEEHL, G.A., T.F. STOCKER, W.D. COLLINS, P. FRIEDLINGSTEIN, A.T. GAYE, J.M. GREGORY, A. KITOH, R. KNUTTI, J.M. MURPHY, A. NODA, S.C.B. RAPER, I.G. WATTERSON, A.J. WEAVER and Z.-C. ZHAO, 2007: Global Climate Projections. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, USA.*
- MEEHL, G.A., VAN LOON, H., 1979: The seesaw in winter temperatures between Greenland and Northern Europe. Part III: Teleconnections with lower latitudes. *Mon. Wea. Rev.* **107**, 1095-1106.
- MEINARDUS, W., 1898: Der Zusammenhang des Winterklimas in Mittel- und Nordwest-Europa mit dem Golfstrom. *Z. d. Ges. f. Erdkunde in Berlin* **23**, 183-200.
- MENZEL, A., SPARKS, T.H., ESTRELLA, N., ECKARDT, S., 2005: "SSW-NNE" North Atlantic Oscillation affects progress of seasons across Europe, *Global Change Biology* **11**, 909-918.
- MERECKI, R., 1914: *Klimatologia Ziemi Polskiej*. - Drukarnia I litografia Jana Cotty, *Kapucyńska* **7**, Warszawa, 313 Seiten.
- MEHTA, V.M., SUAREZ, M.J., MANGANELLO, J.V., DELWORTH, T.L., 2000: Oceanic influence on the North Atlantic Oscillation and associated Northern Hemispheric climate variations: 1959-1993. *Geophysical Research Letters* **27**, 121-124.
- MILLER, R.L., SCHMIDT, G.A., SHINDELL, D.T., 2006: Forced annular variations in the 20th century Intergovernmental Panel of Climate Change Fourth Assessment Report models. *J. Geophys. Res.* **111**, D18101, doi:10.1029/2005JD006323.
- MIN, S.K., LEGUTKE, S., HENSE, A., KWON, W.T., 2005: Internal variability in a 1000-yr control simulation with the coupled climate model ECHO-G - II. El Niño Southern Oscillation and North Atlantic Oscillation. *Tellus* **57A**, 622-640.
- MITCHELL, T.D., JONES, 2005: An improved method of constructing a data base of monthly climate observations and associated high resolution grids, *International Journal of Climatology* **25**, 693-712.
- MÜLLER, W., BLENDER, R., FRAEDRICH, K., 2002: Low frequency variability in idealised GCM experiments with circumpolar and localised storm tracks. *Nonlinear Processes in Geophysics* **9**, 37-49.
- MÜLLER, W.A., APPENZELLER, C., SCHÄR, C., 2005: Probabilistic seasonal prediction of the winter North Atlantic Oscillation and its impact on near surface temperature. *Clim. Dyn.* **24**, 213-226.
- MÜLLER, W.A., ROECKNER, E., 2006: ENSO impact on mid-latitude circulation patterns in future climate change projections. *Geophys. Res. Lett.* **33**, L05711, doi:10.1029/2005GL025032.
- NAMIAS, J., 1950: The index cycle and its role in the general circulation. *J. Meteorol.* **7**, 130-139.

- NAMIAS, J., BORN, R. M., 1970. Temporal coherence in North Pacific sea-surface temperature patterns. *J. Geophys. Res.* **75**, 5952-5955.
- NEW, M., HULME, M., JONES, Ph., 2000: Representing Twentieth-Century Space-Time Climate Variability. Part II: Development of 1901-96 Monthly Grids of Terrestrial Surface Climate. *Journal of Climate* **13**, 2217-2238.
- NEWHALL, CH. G., SELF, S., 1982: The volcanic explosivity index (VEI): An estimate of explosive 6 magnitude for historical volcanism. *J. Geophys. Res.* **87** NO C2, 1231-1238.
- NORTON, W.A., 2003: Sensitivity of northern hemisphere surface climate to simulation of the stratospheric polar vortex. *Geophys. Res. Lett.* **30**, 1627.
- NOWOSAD, M., 2006: More examples of early 20th-century descriptions of teleconnection. *Meteorol. Zeitschrift* **15**, 327-330.
- OGI, M., YAMAZAKI, K., TACHIBANA, Y., 2004: The summer-time annular mode in the Northern Hemisphere and its linkage to the winter mode. *J. Geophys. Res.* **109**, D20114, doi: 10.1029/2004JD004514.
- OSBORN, T.J., 2004: Simulating the winter North Atlantic Oscillation: the roles of internal variability and greenhouse gas forcing. *Climate Dynamics* **22**, 605-623.
- OTTERSEN, G., PLANQUE, B., BELGRANO, A., POST, E., REID, P.C., STENSETH, N.C., 2001: Ecological effects of the North Atlantic Oscillation, *Oecologia* **128**, 1-14.
- PAETH, H., RAUTHE, M., MIN, S.K., 2008: Multi-model Bayesian assessment of climate change in the northern annular mode. *Global and Planetary Change* **60**, 193-206.
- PAETH, H., HENSE, A., GLOWIENKA-HENSE, R., VOSS, R., CUBASCH, U., 1999: The North Atlantic Oscillation as an indicator for greenhousegas induced climate change. *Climate Dynamics* **15**, 953-960.
- PALMER, T. N., 1999: A nonlinear perspective on climate prediction. *J. Clim.* **12**, 575-591.
- PALMER, T., CO-AUTHORS. 2004: Development of a European multi-model ensemble system for seasonal-to-interannual prediction (DEMETER). *Bull. Am. Meteorol. Soc.* **85**, 853-872.
- PENG, S., ROBINSON, W.A., LI, S., 2003: Mechanisms for the NAO Responses to the North Atlantic SST Tripole. *Journal of Climate* **16**, 1987-2004.
- PERLWITZ, J., GRAF, H.-F., 1995: The statistical connection between tropospheric and stratospheric circulation of the Northern hemisphere in winter. *J. Climate* **8**, 2281-2295.
- PETTERSSON, O., 1896: Über die Beziehungen zwischen hydrographischen und meteorologischen Phänomenen., *Meteorol. Z.* **13**, 285-321.
- PFISTER C., 1999: *Wetternachhersage*. Haupt, Bern, Stuttgart, Wien.
- PINTO, J.G., ULBRICH, U., LECKEBUSCH, G.C., SPANGEHL, T., REYERS, M., ZACHARIAS, S., 2007: Changes in storm track and cyclone activity in three SRES ensemble experiments with the ECHAM5/MPI-OM1 GCM. *Climate Dynamics* **29**, 195-210.
- PINTO, J.G., ZACHARIAS, S., FINK, A.H., LECKEBUSCH, G.C., ULBRICH, U., 2008: Factors contributing to the development of extreme North Atlantic cyclones and their relationship with the NAO. *Climate Dynamics*, in press, doi: 10.1007/s00382-008-0396-4.
- POHLMANN, H., SIENZ, F., LATIF, M., 2006: Influence of the multidecadal Atlantic meridional overturning circulation variability on European climate. *J. Clim.* **19**, 6062-6067.
- POLVANI, L.M., KUSHNER, P.J., 2002: Tropospheric response to stratospheric perturbations in a relatively simple general circulation model. *Geophys. Res. Lett.* **29**, doi:10.1029/2001GL014284.
- PORTIS, D.H., WALSH, J.E., EL HAMLY, M., LAMB, P.J., 2001: Seasonality of the North Atlantic Oscillation. *J. Climate* **14**, 2069-2078.
- QIAN, B.D., SAUNDERS, M.A., 2003: Summer UK temperature and its link stop receding Eurasian snow cover, Northatlantic SSTs and the NAO. *J.Clim.* **16**, 4108-4120.
- QUIROZ, R.S., 1977: The tropospheric-stratospheric polar vortex breakdown of January 1977. *Geophys. Res. Lett.* **4**, 151-154.
- QUIROZ, R.S., 1980: Variations in zonal mean and planetary wave properties of the stratosphere and links with the troposphere. *Pageoph.* **118**, 416-427.
- RAIBLE, C.C., CASTY, C., ESPER, J., LUTERBACHER, J., PAULING, A., RÖSCH, A.C., SCHÄR, C., TSCHUCK, P., VIDALE, P.-L., WILD, M., WANNER, H., 2006: Climate variability-observations, reconstructions, and model simulations for the Atlantic-European and Alpine region from 1500-2100. *Clim. Change* **79**, 9-29.
- RAIBLE, C.C., STOCKER, T.F., YOSHIMORI, M., RENOLD, M., BEYERLE, U., CASTY, C., LUTERBACHER, J., 2005: Northern Hemispheric trends of pressure indices and atmospheric circulation patterns in observations, reconstructions, and coupled GCM simulations. *J. Climate* **18**, 3968-3982.
- RAIBLE, C. C., LUKSCH, U., FRAEDRICH, K., VOSS, R., 2001: North Atlantic decadal regimes in a coupled GCM simulation. *Clim. Dyn.* **18**, 321-330.
- RAIBLE, C.C., YOSHIMORI, M., STOCKER, T.F., CASTY, C., 2007: Extreme midlatitude cyclones and their implications to precipitation and wind speed extremes in simulations of the Maunder Minimum versus present day conditions, *Clim. Dyn.* **28**, 409- 423.
- RAMACHANDRAN, S., RAMASWAMY, V., STENCHIKOV, G.L., ROBOCK, A., 2000: Radiative impact of the Pinatubo volcanic eruption: Lower stratospheric response, *J. Geophys. Res.* **105**, 24409- 24429.
- RAUTHE, M., PAETH, H., 2004: Relative importance of northern hemisphere circulation modes in predicting regional climate change. *J. Climate* **17**, 4180-4189.
- RAUTHE, M., HENSE, A., PAETH, H., 2004: A model inter-comparison study of climate change signals in extratropical circulation. *Int. J. Climatology* **24**, 643-662.
- RAYNER, N.A., PARKER, D.E., HORTON, E.B., FOLLAND, C.K., ALEXANDER, L.V., ROWELL, D.P., KENT, E.C., KAPLAN, A., 2003: Global analyses of sea-surface temperature, sea-ice, and night-marine air-temperature since the late nineteenth century *J. Geophys. Res.* Vol., **108**, No.D14,4407DOI10.1029/2002JD002670.
- RIND, D., SHINDELL, D., PERLWITZ, J., LERNER, J., LON- ERGAN, P., LEAN, J., M.C., LINDEN, C., 2004: The relative importance of solar and anthropogenic forcing of climate change between the Maunder Minimum and the present. *J. Climate* **17**, 906-929.
- ROBOCK, A., MAO, J., 1992: Winter warming from large volcanic eruption. *Geophys. Res. Lett.* **19**, 2405-2408.
- ROBOCK, A., 2000: Volcanic eruptions and climate, *Rev. Geophys.* **38**, 191-218.
- RODRIGO, F.S., et al., 2001: A reconstruction of the winter North Atlantic Oscillation Index back to A.D. 1501 using documentary data in Southern Spain. *J. Geophys. Res.* **106**, 14805-14818.

- RODWELL, M.J., FOLLAND, C.K., 2002: Atlantic air-sea interaction and seasonal predictability. *Quart. Jour. R. Met. Soc.* **128**, 1413-1443.
- RODWELL, M.J., ROWELL, D.P., FOLLAND, C.K., 1999: Oceanic forcing of the wintertime North Atlantic Oscillation and European climate. *Nature* **398**, 320-323
- ROECKNER, E., BROKOPF, R., ESCH, M., GIORGETTA, M., HAGEMANN, S., KORNBLUEH, L., MANZINI, E., SCHLESE, U., SCHUZWAIDA, U., 2006: Sensitivity of simulated climate to horizontal and vertical resolution in the ECHAM5 atmosphere model. *J. Climate* **19**, 3771-3791.
- ROGERS, J.C., VAN LOON, H., 1979: The sea-saw in winter temperature between Greenland and Northern Europe. Part II: Some oceanic and atmospheric effects in-middle and high latitudes. *Mon. Wea. Rev.* **107**, 509-519.
- ROGERS, J.C., 1984: The association between the North Atlantic Oscillation and the Southern Oscillation in the Northern Hemisphere. *Mon. Wea. Rev.* **112**, 1999-2015.
- ROSSBY, C.-G., MITARBEITER, 1939: Relations between variations in the intensity of the zonal circulation of the atmosphere and the displacements of the semi-permanent centers of action. *J. Mar. Res.* **3**, 38-55.
- ROSSBY, C.G., WILLETT, H.C., 1948: The circulation of the upper troposphere and lower stratosphere. *Science* **108**, 643-652.
- SANTER, B., GRAF, H.F., 2006: Climate impacts of volcanic eruptions in the IPCC AR4 climate models. *J. Geophys. Res.* **111**, D07107, doi:10.1029/2005JD006286.
- SANTOS, J.A., CORTE-REAL, J., ULBRICH, U., PALUTIKOF, J., 2007: European winter precipitation extremes and large-scale circulation: A coupled model and its scenarios. *Theoretical and Applied Climatology* **87**, 85-102.
- SCAIFE, A.A., FOLLAND, C.K., ALEXANDER, L.V., MOBERG, A., KNIGHT, J.R., 2008: European Climate Extremes and the North Atlantic Oscillation. *J. Climate* **21**, 72-83.
- SCAIFE, A.A., KNIGHT, J.R., VALLIS, G.K., FOLLAND, C.K., 2005: A stratospheric influence on the winter NAO and North Atlantic surface climate. *Geophys. Res. Lett.* **32**, L18715, DOI:10.1029/2005GL023226.
- SCHNADT, C., DAMERIS, M., PONATER, M., HEIN, R., GREWE, V., STEIL, B., 2002: Interaction of atmospheric chemistry and climate and its impact on stratospheric ozone. *Climate Dynamics* **18**, 501-517.
- SCHNEIDER, E.K., BENGTSSON, L., HU, Z.Z., 2003: Forcing of Northern Hemisphere climate trends. *J. Atmos. Sci.* **60**, 1504-1521.
- SCHNEIDEREIT, A., BLENDER, R., FRAEDRICH, K., LUNKEIT, F., 2007: Iceland climate and North Atlantic cyclones in ERA40 reanalyses. *Meteorol. Zeitschrift* **16**, 17-23.
- SCHWIERZ, C., APPENZELLER, CH., DAVIES, H.C., LINGER, M.A., MÜLLER, W.A., STOCKER, T.F., YOSHIMORI, M., 2006: Challenges posed and approaches to the study of seasonal-to-decadal climate variability. *Clim. Change* **79**, 31-63.
- SHINDELL, D.T., RIND, D., BALACHANDRAN, N.K., LEAN, J., LONERGAN, P., 1999: Solar variability, ozone and climate. *Science* **284**, 305-308.
- SHINDELL, D.T., SCHMIDT, G.A., MILLER, L., RIND, D., 2001: Northern Hemisphere winter climate response to greenhouse gas, ozone, solar, and volcanic forcing. *J. Geophys. Res.* **106**, 7193-7210.
- SHINDELL, D.T., SCHMIDT, G.A., MILLER, R.L., MANN, M.E., 2003: Volcanic and solar forcing of climate changeduring the preindustrial era. *J. Climate* **16**, 4094-4107.
- SIENZ, F., BORDI, I., FRAEDRICH, K., SCHNEIDEREIT, A., 2007: Extreme dry and wet events in Iceland: observations, simulations and scenarios. *Meteorol. Zeitschrift* **16**, 9-16.
- SONG, H., ZHANG, M., 2007: Changes in the boreal winter Hadley Circulation in the NCEP-NCAR and ECMWF Reanalyses: A comparative study. *J. Climate* **20**, 5191-5200.
- SOURIAU, A., und YIOU, P., 2001: Grape harvest dates for checking NAO paleoreconstructions. *Geophys. Res. Lett.* **28**, 3895-3898.
- STEINBRECHT, W., CLAUDE, H., KÖHLER, U., HOINKA, K.P., 1998: Correlations between tropopause height and total ozone: implications for long-term changes. *J. Geophys. Res.* **103**, 19183-19192.
- STENCHIKOV, G., HAMILTON, K., STOUFFER, R.J., ROBOCK, A., RAMASWAMY, V., SUTTON, R., HODSON, D., 2003: Influence of the ocean on North Atlantic climate variability 1871-1999. *J. Clim.* **16**, 3296-3313.
- STENCHIKOV, G., HAMILTON, K., STOUFFER, R.J., ROBOCK, A., RAMASWAMY, V., SANTER, B., GRAF, H.-F., 2006: Climate impacts of volcanic eruptions in the IPCC AR4 climate 40 models. *J. Geophys. Res.* **111**, D07107, doi: 10.1029/2005JD006286.
- STENDEL, M., MOGENSEN, I.A., CHRISTENSEN, J.H., 2006: Influence of various forcings on global climate in historical times using a coupled atmosphere-ocean general circulation model. *Clim. Dyn.* **26**, 1-15.
- STEPHENSON, D., WANNER, H., BRÖNNIMANN, S., LUTERBACHER, J., 2003: The history of scientific research on the North Atlantic Oscillation. - In Hurrell J., Y. Kushnir, G. Ottersen, M. Visbeck (Eds.), The North Atlantic Oscillation. Climatic Significance and Environmental Impact. *Geophysical Monograph Series* **134**, 37-50.
- STEPHENSON, D.B., PAVAN, V., 2003: The North Atlantic Oscillation in coupled climate models: a CMIP1 evaluation. *Climate Dynamics* **20**, 381-399
- STEPHENSON, D.B., PAVAN, V., COLLINS, M., JUNGE, M.M., QUADRELLI, R., 2006: North Atlantic Oscillation response to transient greenhouse gas forcing and the impact on European climate: a CMIP2 multi-model assessment. *Climate Dynamics* **27**, 401-420.
- STERL, A., VAN OLDENBORGH, G. J., HAZELEGER, W., BURGERS, G., 2007. On the robustness of ENSO teleconnections. *Clim. Dyn.* **29**, 469-485.
- SUTTON, R. , HODSON, D. 2003: Influence of the ocean on North Atlantic climate variability 1871-1999. *J. Clim.* **16**, 3296-3313.
- SUTTON, R.T., NORTON, W.A., JEWSON, S.P., 2001. The North Atlantic Oscillation - What Role for the Ocean? *Atmospheric Science Letters*, doi:10.1006/asle.2000.0018.
- TEISSERENC DE BORT, L.P., 1883: Etude sur l'hiver de 1879-80 et recherches sur l'influence de la position des grands centres d'action de l'atmosphère dans les hivers anormaux. *Ann. de la Soc. Météor. de France* **31**, 70-79.
- TETT, S.F.B., BETTS, R., CROWLEY, T.J., GREGORY, J., JOHNS, T.C., JONES, A., OSBORN, T.J., ÖSTRÖM, E., ROBERTS, D.L., WOODAGE, M.J., 2007: The impact of natural and anthropogenic forcings on climate and hydrology since 1550. *Clim. Dyn.* **28**, 3-34.
- THOMPSON, D.W.J., BALDWIN, M.P., WALLACE, J.M., 2002: Stratospheric connection to northern Hemisphere wintertime weather: Implications for prediction. *J. Clim.* **15**, 1421-1428.

- THOMPSON, D.W.J., LEE, S., BALDWIN, M.P., 2003: Atmospheric Processes Governing the Northern Hemisphere Annular Mode/North Atlantic Oscillation. in "The North Atlantic Oscillation" edited by J. Hurrell, Y. Kushnir, G. Ottersen and M. Visbeck, *American Geophysical Union monograph* **134**, American Geophysical Union, Washington.
- THOMPSON, D.W. J., SOLOMON, S., 2002: Interpretation of recent Southern Hemisphere climate change. *Science* **296**, 895–899.
- THOMPSON, D.W.J., WALLACE, J.M., 2000: Annular modes in the extratropical circulation. Part I: Month-to-month variability. *J. Climate* **13**, 1000-1016.
- THOMPSON, D.W.J., WALLACE, J.M., 1998: The Arctic Oscillation signature in the wintertime geopotential height and temperature fields. *Geophys. Res. Lett.* **25**, 1297-1300.
- THORNCROFT, C. D., HOSKINS, B.J., MCINTYRE, M.E., 1993: Two paradigms of baroclinic wave life-cycle behavior. *Quart. J. Roy. Meteorol. Soc.* **119**, 17-55.
- TIMMERMANN, A., LATIF, M., VOSS, R., GROTZNER, A., 1998: Northern Hemispheric Interdecadal Variability: a coupled air-sea mode. *Journal of Climate* **11**, 1906-1931.
- TORRENCE, C., COMPO, G.P., 1998: A practical guide to wavelet analysis. *Bull. Amer. Meteorol. Soc.* **79**, 61–78.
- TRENBERTH, K.E., PAOLINO, D.A., 1980: The Northern Hemisphere sea level pressure data set: Trends, errors and discontinuities. *Mon. Wea. Rev.* **108**, 855-872.
- ULBRICH, U., CHRISTOPH, M., 1999: A shift of the NAO and increasing storm track activity over Europe due to anthropogenic greenhouse gas forcing. *Climate Dynamics* **15**, 551-559.
- ULBRICH, U., PINTO, J.G., KUPFER, H., LECKEBUSCH, G.C., SPANGHEL, T., REYERS, M., 2008: Changing Northern Hemisphere Storm Tracks in an Ensemble of IPCC Climate Change Simulations. *J. Climate* **21**, 1669–1679.
- VÄHÄTALO, A.V., RAINIO, K., LEHIKONEN, A., LEHIKONEN, E., (2004): Spring arrival of birds depends on the North Atlantic Oscillation, *J. of Avian Biology* **35**, 210-216.
- VAN LOON, H., ROGERS, J.C., 1978: The seesaw in winter temperatures between Greenland and northern Europe. Part I: General descriptions. *Mon. Wea. Rev.* **106**, 296-310.
- VINJE, T., NORDLUND, N., KVAMBEK, A., 1998: Monitoring ice thickness in Fram Strait. *Journal of Geophysical Research* **103**, 10437-10449.
- VINTHER, B.M., ANDERSEN, K.K., HANSEN, A.W., SCHMITH, T., JONES, P.D., 2003: Improving the Gibraltar/Reyjavik NAO Index. *Geophys. Res. Lett.* **30**, 2222.
- VINTHER, B.M., ANDERSEN, K.K., JONES, P.D., BRIFFA, K. R., CAPPELEN, J., 2006: Extending Greenland temperature records into the late eighteenth century. *J. Geophys. Res.* **111**, D11105, doi:10.1029/2005JD006810.
- VISBECK, M., 2002: The Ocean's Role in Atlantic Climate Variability. *Science* **297**, 2223-2224.
- VISBECK, M., CHASSIGNET, E.P., CURRY, R.G., DELWORTH, T.L., DICKSON, R.R., KRAHMANN, G., 2003: The Ocean's Response to North Atlantic Oscillation Variability. in The North Atlantic Oscillation: Climatic Significance and Environmental Impact. *Geophysical Monograph* **134**, AGU.
- VISBECK, M., CULLEN, H., KRAHMANN, G., NAIK, N., 1998: An ocean model's response to North Atlantic Oscillation like wind forcing. *Geophys. Res. Lett.* **25**, 4521-4524.
- VOLODIN, E.M., GALIN, V.Y., 1999: Interpretation of winter warming on Northern Hemisphere continents in 1977–94. *J. Climate* **12**, 2947–2955.
- WALKER, G.T., 1909: Correlation in seasonal variation of climate. *Mem. Ind. Met. Dept.* **20**, 122.
- WALKER, G.T., 1923: Correlation in seasonal variation of weather, VIII, a preliminary study of world weather. *Mem. Ind. Met. Dept.* **24**, 75-131.
- WALKER, G.T., 1924: Correlation in seasonal variation of weather, IX. *Mem. Ind. Met. Dept.* **25**, 275-332.
- WALKER, G.T., BLISS, E.W., 1932: World Weather V. *Mem. Roy. Met. Soc.* **4**, 53-84.
- WALLACE, J.M., and GUTZLER, D. S., 1981: Teleconnections in the geopotential height field during the Northern Hemisphere winter. *Mon. Wea. Rev.* **109**, 784-812.
- WALLACE, J.M., 2000: North Atlantic Oscillation/annular mode: Two paradigms - one phenomenon. *Q. J. Roy. Meteorol. Soc.* **126**, 791-805.
- WALSH, J.E., JOHNSON, C.M., 1979: An analysis of Arctic sea ice fluctuations, 1953-77. *Journal of Physical Oceanography* **9**, 580-591.
- WALTER, K., GRAF, H.F., 2006: Life cycles of the North Atlantic Teleconnections under strong and weak polar vortex conditions. *Q.J.R. Meteorol. Soc.* **132**, 467-483.
- WANG, X.L.L., ZWIERS, F.W., SWAIL, V.R., 2004: North Atlantic wave climate change Scenarios for the twenty-first century. *J. Climate* **17**, 2368-2383.
- WANNER, H., 2001: Extending NAO reconstructions back to 1500. *Atmos. Sci.* **2**, 114-124.
- WANNER, H., RICKLI, R., SALVISBERGT, E., SCHMUTZ, C., SCHÜEPP, M., 1997: Global climate change and variability and its influence on Alpine climate - concepts and observations. *Theor. Appl. Climatol.* **58**, 221-243.
- WANNER, H., BRÖNNIMANN, S., CASTY, C., GYALISTRAS, D., LUTERBACHER, J., SCHMUTZ, C., STEPHENSON, D., XOPLAKI, E., 2001: North Atlantic Oscillation-concept and studies. *Surv. Geophys.* **22**, 321-381.
- WATANABE, M., KIMOTO, M., 2000: Atmosphere-ocean thermal coupling in the North Atlantic: A positive feedback. *Quart. Jour. R. Met. Soc.* **126**, 3343-3369.
- WEYHENMEYER, G.A., BLENCKNER, T., PETERSSON K., 1999: Changes of the plankton springout burst related to the North Atlantic Oscillation, *Limnol. Oceanogr.* **44**, 1788-1792.
- WEYHENMEYER, G., ADRIAN, A.R., GAEDKE, U., LIVINGSTONE, D.M., MABERLY, S.C., 2002: Response of phytoplankton in European lakes to a change in the North Atlantic Oscillation, *Verh. Internat. Verein. Limnol.* **28**, 1436-1439.
- WHITE, J.W.C., GORODETZKY, D., COOK, E.R., BARLOW, L.K., 1996: Frequency analysis of an annually resolved, 700 year paleoclimate record from the GISP2 ice core, In: R.S. Bradley et al. (eds), *Climate Variations and Forcing Mechanisms of the Last 2000 Years*, Springer-Verlag, New York. 193–213.
- WILKS, D. S., 2004: Statistical methods in the atmospheric sciences. Academic Press, *International Geophysics Series*, Vol 91, pp627.
- WOODRUFF, S.D., SLUTZ, R.J., JENNE, R.L., STEURER, P.M., 1987: A comprehensive oceanatmosphere datas et. *Bull. Amer. Meteor. Soc.* **68**, 1239-1250.
- WOOLLINGS, T.J., HOSKINS, B.J., BLACKBURN, M., und BERRISFORD, P., 2008: A new Rossby wave-breaking interpretation of the North Atlantic Oscillation. *J. Atmos. Sci.* **65**, 536-553.

- WORLD METEOROLOGICAL ORGANISATION (WMO), 2003: Scientific Assessment of Ozone Depletion: 2002, *Global Ozone Research and Monitoring Project, Report No. 47*, Geneva.
- WORLD METEOROLOGICAL ORGANISATION (WMO), 2007: Scientific Assessment of Ozone Depletion: 2006, *Global Ozone Research and Monitoring Project, Report No., 50*, Geneva.
- WUNSCH, C., 1999: The interpretation of short climate records, with comments on the North Atlantic and Southern Oscillations. *Bull. Amer. Meteor. Soc.* **80**, 245–255.
- YOSHIMORI, M., STOCKER, T.F., RAIBLE, C.C., RENOLD, M., 2005: Externally-forced and internal variability in ensemble climate simulations of the Maunder Minimum. *J. Climate* **18**, 4253-4270.
- XOPLAKI, E., LUTERBACHER, J., PAETH, H., DIETRICH, D., STEINER N., GROSJEAN, M., und WANNER, H., 2005: European spring and autumn temperature variability and change of extremes over the last half millennium, *Geophys. Res. Lett.* **32**, L15713.
- ZORITA, E., VON STORCH, H., GONZALES-ROUCO, F., CUBASCH, U., LUTERBACHER, J., LEGUTKE, S., FISCHER-BRUNS I., SCHLESE, U., 2004: Climate evolution in the last five centuries simulated by an atmosphere-ocean model: global temperatures, the North Atlantic Oscillation and the Late Maunder Minimum. *Meteorologische Zeitschrift* **13**, 271-289.

Corrigenda

Im Heft 3/4, Jahrgang 33, 2007 (Biometeorologie des Menschen), wurde auf Seite 161 f. der Vorname von Prof. Dr. E. Raschke falsch geschrieben. Er heißt richtig: Prof. Dr. Ehrhard Raschke.

Im gleichen Heft wurden auf S. 159 falsche Abbildungslegenden gedruckt. Die Abb. 5 zeigt einen Arbeitsraum der Abteilung Hydrologie, die Abb. 8 wiederum das Wettervorhersagezentrum des polnischen Wetterdienstes.

Wir bitten die Fehler zu entschuldigen.