

CURRICULUM VITAE

Klaus Wolter

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EDUCATION 1987 Ph.D., Department of Meteorology, University of Wisconsin -
Madison; Dissertation: *Modes of surface circulation and climate over
the tropical Atlantic, Eastern Pacific, and Indian Oceans*

1981 "Diplom" (equivalent of M.Sc.), Department of Meteorology,
University of Hannover, Germany. Translated thesis title: *Dust
transports over North Africa and the adjacent Atlantic.*

EXPERIENCE 1988 -now CIRES Research Associate, University of Colorado – Boulder
(post-M.Sc.) 1987 - 88 UCAR Visiting Postdoctoral Scientist, Climate Analysis Center,
National Meteorological Center, Washington, DC (aka NCEP-CPC)

1987 Postdoc at UW-Madison from May-November

1983-87 Graduate Research and Teaching Assistant at UW-Madison

1981-82 Contract Researcher at U of Hannover (German Weather Service)

HONORS AND AWARDS

Royal Meteorological Society's International Journal of Climatology Prize, 2014 (awarded in May 2015)
(<http://www.rmets.org/about-us/people/klaus-wolter>) - refers to Wolter&Timlin (2011) on extended MEI

Colorado Governor's Award for High Impact Research, 2013 (awarded in October 2013)
(<https://www.youtube.com/watch?v=4TVIXo9dPt0>) – refers to more than a decade of seasonal forecasts
in support of water resource management and drought planning in Colorado

Full Scholarship by German Academic Exchange Service to Attend UW-Madison in 1982-83

PRIMARY RESEARCH INTERESTS

My main research interests lie in climate research, primarily the application of statistical methods to the diagnosis of climate phenomena, such as the impact of ENSO (El Niño/Southern Oscillation) on global climate. I have developed and refined a “Multivariate ENSO Index” (MEI) based on tropical Pacific observations of sea level pressure, wind, sea surface & air temperatures, and cloudiness. The MEI is more comprehensive than univariate indices in monitoring the ENSO phenomenon, as well as more robust under operational conditions that include occasional data gaps. A simplified and extended version of the MEI (Wolter and Timlin, 2011) just won a prize from the Royal Meteorological Society. Monthly updates and discussions of the MEI as well as relevant publications can be found at:
<http://www.esrl.noaa.gov/psd/enso/mei/>

PRIMARY RESEARCH INTERESTS continued

In parallel, I have focused on the seasonal prediction of regional U.S. climates, initially utilizing regional ENSO footprint information. This was originally facilitated through the Western Water Assessment (WWA), followed by NIDIS (National Integrated Drought Information System), and stakeholders such as the California Department of Water Resources (CA-DWR), the Colorado Water Conservation Board (CWCB), and the Southeast Climate Consortium (SECC). In this context, I have developed statistical tools that allow me to go beyond the ENSO footprint, in order to support water management and drought planning, recognized by the Colorado Governor's Award in 2013.

During the last decade, I have contributed to regional assessments of the impact of climate change on southwestern U.S. climate, with particular focus on temperature and snowpack trends. For Colorado, this resulted in two reports to the Governor by WWA, first in 2008, and updated in 2014: (http://wwa.colorado.edu/climate/co2014report/Climate_Change_CO_Report_2014_FINAL.pdf). In the context of national assessments of extreme events, I contributed to two BAMS papers on century-scale trends from snow storms to floods and droughts (e.g., <http://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-11-00262.1>).

I also contribute regularly to the NOAA-ESRL PSD Attribution and Predictability Assessment Team (see e.g., <http://www.esrl.noaa.gov/psd/csi/>) that investigates proximate and underlying causes for climate-related events and determines their predictability. Much of that work has also been published in BAMS (most recently: <https://www2.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/explaining-extreme-events-from-a-climate-perspective/>).

SIGNIFICANT GRANTS / CONTRACTS / CONSULTING

MEI-related

NOAA-EPOCS (Proto-MEI) ~ 1988-1990

NOAA-OGP (Mature MEI development) ~ 1990-1992

NOAA-OGP (COADS Release 2) ~1992-98

NOAA-NWS Climate Services (MEI.ext) ~2007-09

Southeast Climate Consortium (consulted with SECC; MEI forecasts) ~2010-12

Climate Change/Attribution

NOAA-RISA WWA (Assessments for CO and Southwest) ~2006-present

NOAA-ESRL PSD (Assessments of recent climate conditions, with particular emphasis on extreme events) ~2008-present

Regional Climate Analyses/Seasonal Forecasting

INCO (Consultant; seasonal forecasts for reservoir in Sulawesi, Indonesia) ~1997-2000

NOAA-OGP GOALS (Maritime Continent climate regionalization) ~ 1999-2002

NOAA-OGP PACS (Interior Southwest climate regionalization) ~ 1999-2002

NOAA-RISA WWA (Outreach to stakeholders with seasonal forecasts) ~ 2000-2008

NOAA-NWS Climate Services (National climate division work) ~ 2002-2007

California Dept. Water Resources (via UCSD; Water (Year) Outlook Workshops) ~2008-present

NIDIS (Drought briefings from Upper CO Basin to Florida) ~2011-present

Colorado Water Conservation Board (CWCB; seasonal forecasts for CO) ~2012-present

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ACCOMPLISHMENTS AND SUSTAINED SERVICE

Presentations/Meetings

Presentations at conferences and workshops outside the U.S., as well as invited lectures (Austria, Brazil, Canada, Chile, China, Czech Republic, France, Italy, New Zealand, Poland, Switzerland, Tahiti, U.K.; over a dozen since 1988 in Germany)

20-30 presentations per year (mostly invited) within the U.S. during last decade

Session co-chair (“IMPACTS”) at AMS Annual Meeting (also keynote speaker) since 2007

Invited lectures at CU Boulder and Colorado School of Mines,
about ENSO and/or Front Range snow storms during last decade

Invited lectures at COMET Training course for
NWS Climate Focal Points on climate risk analysis and ENSO ~2002-04

Workshop co-organizer (International COADS Workshop 1992, National Climate Prediction and Diagnostics Workshop 1993)

Outreach/Stakeholder Interactions

Outreach to press/radio/TV/internet media about ENSO-related topics and Climate Change since 1997 (*more than once a week during 1st decade, including 20 monthly columns in the Boulder Daily Camera; scaled back in recent years to focus more on publications*)

Outreach/interaction with stakeholders via WWA/NIDIS/CA DWR/SECC, providing seasonal outlooks to water managers from CA to FL, but also wildfire, agricultural (ranching), tourism (e.g., 2002 Olympics, ski industry), energy (renewables/traders), etc., since 1997

Outreach/interaction with American Association of State Climatologists (AASC) about ENSO impacts and utility of climate divisions since 2002

Public Service Announcements (PSA e-mails) warning about incoming Front Range snowstorms to now almost 500 subscribers for more than two decades

Service

Proposal reviews for NOAA and NSF, including service on review panels for their joint paleo-climate research program on three separate occasions during the 1990s

Regular manuscript reviews for AMS and AGU journals

Assistant Editor of WWA Intermountain West Climate Summary from 2005-2010

Supervised 6 CIRES-PRA's since 1990

Monthly updates and discussions of ENSO behavior on MEI website since 1997

Monthly input to CPC ENSO diagnostic discussion (advisory) since 2002

ACCOMPLISHMENTS AND SUSTAINED SERVICE continued

Service continued

U.S. Drought Monitor contributor since its inception in 1999, mainly during first decade before CO State Climatologist assumed a leading role

Colorado Water Availability Task Force member and presenter since 2000 (bimonthly)

Monthly conference call with Climate Prediction Center (CPC) on their seasonal climate outlook ('sanity check') since 2000

WEBSITES

Multivariate ENSO Index (MEI): <http://www.esrl.noaa.gov/psd/enso/mei/>

Online since 1997, updated monthly (in top 10 of most visited webpages at NOAA-ESRL-PSD), includes monthly discussion to assess state of ENSO *over 8K hits from outside NOAA-ESRL-PSD per month*

MEI.ext: <http://www.esrl.noaa.gov/psd/enso/mei.ext/>

Online since 2011, documents extension of the MEI back to 1871, and includes comparison with MEI (both MEI sites are based on original work by myself and Michael Timlin)

ENSO Climate Risks: <http://www.esrl.noaa.gov/psd/enso/climaterisks/>

Online since 1997, updated in 2015 to switch ENSO event definitions to MEI.ext, and to augment record length of climate extremes by 20 years (with Jon Eischeid, Randy Dole, Robin Webb, and Cathy Smith)

CO Climate Forecasts: <http://cwc.state.co.us/public-information/flood-water-availability-task-forces/>
Hosted at the website for the Colorado Water Availability Task Force since 2012, updated bimonthly

Experimental Climate Divisions: <http://www.esrl.noaa.gov/psd/people/klaus.wolter/ClimateDivisions/>

Online since 2007, documents how well the original and our improved climate divisions represent U.S. climate variability (with David Allured)

ACCEPTED PEER-REVIEWED PAPERS

Hoerling, M. J. Eischeid, J. Perlwitz, X. Quan, and **K. Wolter**, 2016: Characterizing Recent Trends in U.S. Heavy Precipitation. Accepted with minor revisions, *J. Climate*

Hoell, A., M. Hoerling, J. Eischeid, **K. Wolter**, R. Dole, J. Perlwitz, T. Xu, and L. Cheng, 2015: Does El Niño Intensity Matter for California Precipitation? In press, *Geophys. Res. Letters*

PEER-REVIEWED PUBLICATIONS

Wolter, K., M. Hoerling, J.K. Eischeid, G.J. van Oldenborgh, X.-W. Quan, J.E. Walsh, T.N. Chase, and R.M. Dole, 2015: How unusual was the cold winter of 2013-14 in the Upper Midwest? [in "Explaining Extremes of 2014 from a Climate Perspective"]. *Bull. Amer. Meteor. Soc.*, **96** (12), S10-S14. <<https://www2.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/explaining-extreme-events-from-a-climate-perspective/>>

Briske, D.D., L.A. Joyce, W.H. Polley, J.R. Brown, **K. Wolter**, J.A. Morgan, B.A. McCarl, D.W. Bailey, 2015: Climate Change adaptation on rangelands: Linking regional exposure with diverse adaptive capacity. *Frontiers Ecology & Environment*, **13**, 249–256, <<http://www.esajournals.org/doi/abs/10.1890/140266>>

PEER-REVIEWED PUBLICATIONS continued

- Mahoney, K., F.M. Ralph, **K. Wolter**, N. Doesken, M. Dettinger, D. Gottas, T. Coleman, and A. White, 2015: Climatology of extreme daily precipitation in Colorado and its diverse spatial and seasonal variability. *J. Hydrometeor.*, **16**, 781-792. < <http://journals.ametsoc.org/doi/abs/10.1175/JHM-D-14-0112.1> >
- Livneh, B., J.S. Deems, B. Buma, J.J. Barsugli, D. Schneider, N.P. Molotch, **K. Wolter**, and C.A. Wessman, 2015: Catchment response to bark beetle outbreak and dust-on-snow in the Colorado Rocky Mountains. *J. Hydrol.*, **523**, 196-210. < http://ac.els-cdn.com/S0022169415000566/1-s2.0-S0022169415000566-main.pdf?_tid=4892b5f4-d59b-11e4-8b40-00000aab0f6c&acdnat=1427582544_62dcee805f9c8ba8352719751664a0f4 >
- Hoerling, M., **K. Wolter**, J. Perlwitz, X. Quan, J. Eischeid, H. Wang, S. Schubert, H. Diaz, and R. Dole, 2014: Northeast Colorado extreme rains interpreted in a climate change context. *Bull. Amer. Meteor. Soc.*, **95**, S15–S18. < <http://www2.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/explaining-extreme-events-of-2013-from-a-climate-perspective/> >
- Lukas, A.J., J.J. Barsugli, N. Doesken, I. Rangwala, and **K. Wolter**, 2014: Climate Change in Colorado – A synthesis to support water resources management and adaptation, 2nd edition. Report by the Western Water Assessment for CWCB, Boulder, 108pp. < <http://wwa.colorado.edu/climate/co2014report/> >
- Dole, R., M. Hoerling, A. Kumar, J. Eischeid, J. Perlwitz, X. Quan, G. Kiladis, R. Webb, D. Murray, M. Chen, **K. Wolter**, and T. Zhang, 2014: The making of an extreme event: Putting the pieces together. *Bull. Amer. Meteor. Soc.*, **95**, 427-440. < <http://journals.ametsoc.org/doi/abs/10.1175/BAMS-D-12-00069.1> >
- Polley, W.H., D.D. Briske, J.A. Morgan, **K. Wolter**, D.W. Bailey, and J.R. Brown, 2013: Climate Change and North American Rangelands: Evidence, Trends, and Implications. *Rangeland Ecology & Management*, **66**, 493-511. < <http://srmjournals.org/doi/abs/10.2111/REM-D-12-00068.1> >
- Gill, E., T.N. Chase, R.A. Pielke Sr., and **K. Wolter**, 2013: Northern Hemisphere summer temperature and specific humidity anomalies from two reanalyses. *J. Geophys. Res. Atmos.*, **118**, 8297–8305. < <http://onlinelibrary.wiley.com/doi/10.1002/jgrd.50635/full> >
- Hoerling, M., M. Dettinger, **K. Wolter**, J. Lukas, J. Eischeid, R. Nemani, B. Liebmann, and K. Kunkel, 2013: Chapter 5: Evolving weather and climate conditions of the Southwest United States. *In Assessment of Climate Change in the Southwest U.S.: A Report prepared for the National Climate Assessment*, Gregg Garfin(ed.), Island Press, 74-100. < <http://swccar.org/sites/all/themes/files/SW-NCA-color-FINALweb.pdf> >
- Peterson, T.C., ..., **K. Wolter**, and Coauthors, 2013: Monitoring and Understanding Changes in Heat Waves, Cold Waves, Floods and Droughts in the United States: State of Knowledge. *Bull. Amer. Meteor. Soc.*, **94**, 821-834 < <http://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-12-00066.1> >
- Kunkel, K.E., ..., **K. Wolter**, and Coauthors, 2013: Monitoring and Understanding Trends in Extreme Storms: State of Knowledge. *Bull. Amer. Meteor. Soc.*, **94**, 499-514. < <http://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-11-00262.1> >
- Wolter, K.**, and M.S. Timlin, 2011: El Niño/Southern Oscillation behaviour since 1871 as diagnosed in an extended multivariate ENSO index (MEI.ext). *International J. of Climatology*, **31**, 1074-87. < <http://onlinelibrary.wiley.com/doi/10.1002/joc.2336/abstract> > **Web of Science (165 citations)**
- Ray, A.J., J.J. Barsugli, K.B. Averyt, **K. Wolter**, M. Hoerling, N. Doesken, B. Udall, and R.S. Webb, 2008: Climate Change in Colorado – A synthesis to support water resources management and adaptation. Report by the Western Water Assessment for CWCB, Boulder, 58pp. < http://wwa.colorado.edu/publications/reports/WWA_ClimateChangeColoradoReport_2008.pdf >

PEER-REVIEWED PUBLICATIONS continued

- Chase, T.N., **K. Wolter**, R.A. Pielke Sr., and Ichtiague Rasool, 2008: Reply to comment by W.M. Connolley on “Was the 2003 European summer heat wave unusual in a global context?” *Geophys. Res. Lett.*, **35**, L02704, doi:10.1029/2007GL031574. < <http://onlinelibrary.wiley.com/doi/10.1029/2007GL031574/full> >
- Pielke, R.A. Sr., **K. Wolter**, O. Bliss, N. Doesken, and B. McNoldy, 2007: The July 2005 Denver heat wave: How unusual was it? *National Weather Digest*, **31**, 24-35.
< <http://www.climate.gov/publications/pdf/R-313.pdf> >
- Chase, T.N., **K. Wolter**, R.A. Pielke Sr., and I. Rasool, 2006: Was the 2003 European summer heat wave unusual in a global context? *Geophys. Res. Lett.*, **33**, L23709, doi:10.1029/2006GL027470.
< <http://onlinelibrary.wiley.com/doi/10.1029/2006GL027470/full> >
- Pielke, R.A., Sr., N. Doesken, O. Bliss, T. Green, C. Chaffin, J.D. Salas, C.A. Woodhouse, J.J. Lukas, and **K. Wolter**, 2005: Drought 2002 in Colorado: An Unprecedented Drought or a Routine Drought? *Pure Appl. Geophys.*, **162**, 1455-1479. < <http://www.climate.gov/publications/pdf/R-285.pdf> >
- Wolter, K.**, S.J. Lubker, and S.D. Woodruff, 2003: Quality control in recent and pending COADS releases. *Advances in the Applications of Marine Climatology – The Dynamic Part of the WMO Guide to the Applications of Marine Climatology*, WMO/TD-No. **1081** (JCOMM Technical Report No. 13), 116-123. [full WMO Report: http://icoads.noaa.gov/jcomm_tr13.pdf]
- Wolter, K.**, R.M. Dole, and C.A. Smith, 1999: Short-term climate extremes over the continental U.S. and ENSO. Part I: Seasonal temperatures. *J. Climate*, **12**, 3255-3272.
< <http://journals.ametsoc.org/doi/abs/10.1175/1520-0442%281999%29012%3C3255%3ASTCEOT%3E2.0.CO%3B2> >
- Wolter, K.**, 1997: Trimming problems and remedies in COADS. *J. Climate*, **10**, 1980-1997.
< <http://journals.ametsoc.org/doi/abs/10.1175/1520-0442%281997%29010%3C1980%3ATPARIC%3E2.0.CO%3B2> >
- Hastenrath, S., and **K. Wolter**, 1992: Large-scale patterns and long-term trends of circulation variability associated with Sahel rainfall anomalies. *J. Meteor. Soc. Japan*, **70**, 1045-1055.
< https://www.jstage.jst.go.jp/article/jmsj1965/70/6/70_6_1045/pdf >
- Wolter, K.**, and S. Hastenrath, 1989: Annual cycle and long-term trends of circulation and climate variability over the tropical oceans. *J. Climate*, **2**, 1329-1351.
< <http://journals.ametsoc.org/doi/abs/10.1175/1520-0442%281989%29002%3C1329%3AACALTT%3E2.0.CO%3B2> >
- Wolter, K.**, 1989: Modes of tropical circulation, Southern Oscillation, and Sahel rainfall anomalies. *J. Climate*, **2**, 149-172.
< <http://journals.ametsoc.org/doi/abs/10.1175/1520-0442%281989%29002%3C0149%3AMOTCSO%3E2.0.CO%3B2> >
- Wolter, K.**, 1987: The Southern Oscillation in surface circulation and climate over the Atlantic, Eastern Pacific, and Indian Oceans, as captured by cluster analysis. *J. Climate Appl. Meteor.*, **26**, 540-558.
< <http://journals.ametsoc.org/doi/abs/10.1175/1520-0450%281987%29026%3C0540%3ATSOISC%3E2.0.CO%3B2> >
Web of Science (132)
- Tetzlaff, G., M. Sarnthein, and **K. Wolter**, 1982: Pleistocene and Holocene climates in Africa; Reply to Sharon Nicholson. *Nature*, **296**, 779-780. < <http://www.nature.com/nature/journal/v296/n5859/abs/296779b0.html> >
- Sarnthein, M., G. Tetzlaff, B. Koopmann, **K. Wolter**, and V. Pflaumann, 1981: Glacial and interglacial wind regimes over the eastern subtropical Atlantic and Northwest Africa. *Nature*, **293**, 193-196.
< <http://www.nature.com/nature/journal/v293/n5829/abs/293193a0.html> > **Web of Science (222)**

PEER-REVIEWED PUBLICATIONS continued

Tetzlaff, G. and **K. Wolter**, 1980: Meteorological patterns and the transport of mineral dust from the North African continent. *Paleoecology of Africa*, **12**, 31-45. < *not online, sorry!* >

SELECTED OTHER PUBLICATIONS

Wolter, K., 2014: Thoughts About The September Floods In Colorado's Front Range. *Ogmios Newsletter*, **37**, 2pp. <http://sciencepolicy.colorado.edu/ogmios/archives/issue_37/ogmios_exchange2.html>

Wolter, K., and J. Lukas, 2010: ENSO and Intermountain West Water Supply: A Review of Water Year 2010 and Outlook for Water Year 2011. *Intermountain West Climate Summary*, **6 (October)**, 1-5. < http://wwa.colorado.edu/climate/iwcs/docs/2010_October/IWCS_Oct2010_Feature.pdf>

Lukas, J., **K. Wolter**, K. Mahoney, J. Barsugli, N. Doesken, W. Ryan, I. Rangwala, N. Livneh, E. Gordon, M. Hoerling, and G. Kiladis, 2013: Severe flooding on the Colorado Front Range, September 2013: A preliminary assessment from CIRES-WWA, NOAA-ESRL-PSD, and Colorado Climate Center, 4pp. < <http://wwa.colorado.edu/resources/front-range-floods/assessment.pdf>>

Ray, A.J., J. J. Barsugli, Jr., **K. Wolter**, and J.K. Eischeid. 2010. Rapid-Response Climate Assessment to Support the FWS Status Review of the American Pika. *NOAA Report to the U.S. Fish and Wildlife Service*. 53pp. < <http://www.esrl.noaa.gov/psd/news/2010/020210.html>>

Marquis, M., ..., **K. Wolter**, and Coauthors, 2008: NOAA ESRL's Potential Contributions to Solving the Nation's Energy-Climate Crisis through Renewable Energy Development. Report by NOAA-ESRL and NREL, 45pp. <http://www.researchgate.net/profile/Stanley_Benjamin/publication/228788220_NOAA_ESRL's_Potential_Contributions_to_Solving_the_Nation's_Energy-Climate_Crisis_through_Renewable_Energy_Development/links/5538cf450cf247b8587d5566.pdf>

Wolter, K., and D. Allured, 2007: New climate divisions for monitoring and predicting climate in the US. *Intermountain West Climate Summary*, **3 (June)**, 2-6. < http://wwa.colorado.edu/climate/iwcs/archive/IWCS_2007_Jun_feature.pdf>

Wolter, K., D. Brandon, J. Smith, H. Hartmann, and M. Lenart, 2005: A roundtable discussion of the climate outlook for the Intermountain West. *Intermountain West Climate Summary*, **1 (December)**, 1-2. < http://wwa.colorado.edu/climate/iwcs/archive/IWCS_2005_Dec_feature.pdf>

Wolter, K., M. Baldi, T.N. Chase, J. Otterman, R.A. Pielke, Sr. and I. Rasool, 2005: Possible causes of the south-central European heat wave of 2003 – a diagnostic perspective. *Geophys. Res. Abstr.*, **7**, 10447. < <http://meetings.copernicus.org/www.cosis.net/abstracts/EGU05/10447/EGU05-J-10447.pdf>>

Wolter, K., 2005b: Improving climate forecasts for the Southwest. *Intermountain West Climate Summary*, **1 (June)**, 17-18. < http://wwa.colorado.edu/climate/iwcs/archive/IWCS_2005_June_focus.pdf>

Wolter, K., 2005a: A meteorological perspective on drought. *Intermountain West Climate Summary*, **1 (January)**, 2-3. < http://wwa.colorado.edu/climate/iwcs/archive/IWCS_2005_Jan_feature.pdf>

Wolter, K., 2004: Drought is a tricky phenomenon. *Denver Post, Perspectives*, 2 May 2004. < <http://www.freerepublic.com/focus/f-news/1129102/posts>>

Wolter, K., 2002: Climate Projections: Assessing Water Year (WY) 2002 Forecasts and Developing WY 2003 Forecasts. Proceedings of Colorado Drought Conference, Fort Collins, CO, *CWRR Information Series Report*, **96**, 32-41. < https://dspace.library.colostate.edu/bitstream/handle/10217/3163/is_96.pdf?sequence=1&isAllowed=y#page=43>

SELECTED OTHER PUBLICATIONS

- Wolter, K.**, 1998-2000: 20 monthly columns (700 words) for the *Sunday Boulder Daily Camera* on climate issues ranging from local climate differences between foothills and lower elevations, the Colorado ENSO footprint, seasonal forecasting, drought, and Climate Change. < *not online, sorry!* >
- Wolter, K.**, and M.S. Timlin, 1998: Measuring the strength of ENSO events - how does 1997/98 rank? *Weather*, **53**, 315-324. < <http://www.esrl.noaa.gov/psd/enso/mei/WT2.pdf> >
(870 citations in Google Scholar)
- Wolter, K.**, 1994: Climate since A.D. 1500 by R.S. Bradley and P.D. Jones (Book Review). *Arctic and Alpine Research*, **26**, 93-95. < <http://www.jstor.org/stable/1551884> >
- Wolter, K.**, and M.S. Timlin, 1993: Monitoring ENSO in COADS with a seasonally adjusted principal component index. *Proc. of the 17th Climate Diagnostics Workshop*, Norman, OK, NOAA/NMC/CAC, NSSL, OK Clim. Survey, CIMMS and the School of Meteor., Univ. of OK, 52-57.
< <http://www.esrl.noaa.gov/psd/enso/mei/WT1.pdf> > (548 citations in Google Scholar)
- Woodruff, S.D., S.J. Lubker, **K. Wolter**, S.J. Worley, and J.D. Elms, 1993: *Comprehensive Ocean-Atmosphere Data Set (COADS) Release 1a: 1980–92*. *Earth System Monitor*, **4**, 1-8. < *not online* >
- Diaz, H.F, **K. Wolter**, and S.D. Woodruff (editors), 1992: *Proceedings of the International COADS Workshop*, Boulder, Colorado, 13-15 January 1992. Report by NOAA-ERL-CMDL-Climate Research Division, vi + 390pp. < <http://icoads.noaa.gov/Boulder/Boulder.Contents.html> >
- Wolter, K.**, and R. Livezey, 1989: Relationships between seasonal circulation modes of the tropics and the Northern Hemispheric extratropics. *Proc. of the 13th Climate Diagnostics Workshop*, Cambridge, MS, NOAA/NMC/CAC, 143-146. < *not online, sorry!* >
- Wolter, K.**, 1988: Modes of interannual climate variability and Sahel rainfall anomalies. *Proc. of the 12th Climate Diagnostics Workshop*, Salt Lake City, UT, NOAA/NMC/CAC, 106-113. < *not online* >
- Wolter, K.**, 1987: The Southern Oscillation in the surface climate of the tropical Atlantic, Eastern Pacific, and Indian Oceans. *Proc. of the 11th Climate Diagnostics Workshop*, Champaign, IL, NOAA/NMC/CAC, 73-78. < *not online, sorry!* >