

RICHARD W. KATZ

CONTACT INFORMATION

Computational Information Systems Laboratory
National Center for Atmospheric Research
PO Box 3000
Boulder, CO 80307 USA

Phone: 303-497-8114
E-mail: rwk@ucar.edu
Home Page: staff.ucar.edu/users/rwk
ORCID ID: 0000-0002-0267-8953

EMPLOYMENT

1/14 – *Senior Scientist Emeritus*, CISL, NCAR, Boulder, CO
10/09 – 12/13 *Senior Scientist*, IMAGE, NCAR, Boulder, CO
7/94 – 9/09 *Senior Scientist*, ISSE (formerly ESIG), NCAR, Boulder, CO
7/03 – 10/03 *Guest Professor*, University of Innsbruck, Austria
5/03 – 6/03 *Invited Professor*, Swiss Federal Institute of Technology, Lausanne
1/97 – 4/97 *Visiting Scientist*, NIWA, Wellington, New Zealand
7/84 – 6/94 *Scientist III*, ESIG, NCAR, Boulder, CO
10/89 – 8/90 *Visiting Research Scientist*, Dept. of Land, Air and Water Resources and
Division of Statistics, Univ. of California, Davis, CA
7/83 – 6/84 *Scientist II*, ESIG, NCAR, Boulder, CO
10/79 – 6/83 *Research Associate and Assistant Professor (Research)*, Dept. of Atmospheric
Sciences and Dept. of Statistics, Oregon State Univ., Corvallis, OR
9/80 – 7/82 *Research Statistician*, Corvallis Environmental Research Laboratory, EPA,
Corvallis, OR
8/76 – 9/79 *Scientist I*, ESIG, NCAR, Boulder, CO
9/75 – 8/76 *Postdoctoral Fellow*, Advanced Study Program, NCAR, Boulder, CO
9/74 – 9/75 *Statistician*, Center for Climatic and Environmental Assessment, NOAA,
Columbia, MO

EDUCATION

9/70 – 8/74 Pennsylvania State Univ., University Park, PA (*PhD Statistics*)
Thesis: “A stochastic process defined on a Markov chain: Properties and an
application to meteorology” (*Advisor*: Frank A. Haight)
9/66 – 6/70 Univ. of Virginia, Charlottesville, VA (*BA Mathematics, High Distinction*)

SOCIETIES

American Geophysical Union (*Retired*)
American Meteorological Society (*Fellow, Emeritus*)
American Statistical Association (*Retired*)
Institute of Mathematical Statistics (*Retired*)
Phi Beta Kappa (*Honorary*)

AWARDS

2010	International Meetings on Statistical Climatology Achievement Award
2007	UCAR Special Recognition Award
2001	Fellow, American Meteorological Society
1987, 88, 92, 97	Nominee, NCAR Outstanding Publications Award
1979	NASA (Johnson Space Center) Group Achievement Award
1975	NOAA Environmental Data Service Special Achievement Award

EDITORIAL/REVIEW SERVICE

2009 – 2015	Editorial Board, <i>Advances in Water Resources</i>
1997 – 2014	Editorial Board, <i>Extremes</i> (Co-Editor: Special issue on “Statistics of Extremes in Weather and Climate,” V. 13, No. 2, June 2010)
1985 – 2014	Editorial Board, <i>Climatic Change</i> (Associate Deputy Editor, 2011 – 2014)
2011 – 2013	Contributing Editor, <i>Climate Research</i>
2004 – 2009	Associate Editor, <i>Water Resources Research</i>
2001, 2002, 2005	Member, NSF Proposal Review Panel on Biocomplexity in the Environment: Dynamics of Coupled Natural and Human Systems
2000	Member, NSF/EPA Proposal Review Panel on Environmental Statistics
1977 – 1997	Editorial Collaborator and Contributing Editor, <i>Current Index to Statistics</i>
1985 – 1987	Editor, <i>Network Newsletter</i>

CONFERENCES/WORKSHOPS ORGANIZED

6 – 24 June 2011	Organizer, NCAR Advanced Study Program Colloquium on Statistical Assessment of Extreme Weather Phenomena under Climate Change, Boulder
20 – 24 Jan 2008	Program Chair, AMS 19th Conference on Probability and Statistics in Atmospheric Sciences, New Orleans, LA
3 – 5 Jan 2007	Co-Organizer, Workshop on Frameworks for Integration of Atmospheric-Oceanic Science with Operational Decision-Making, Monterey, CA
29 Jan – 2 Feb 2006	Program Co-Chair, AMS 18th Conference on PSAS, Atlanta, GA
11 – 15 Jan 2004	Program Co-Chair, AMS 17th Conference on PSAS, Seattle, WA
18 – 24 July 1998	Co-Organizer, NCAR Colloquium on Statistics for Understanding the Atmosphere and Ocean, Boulder, CO
6 – 19 July 1994	Co-Organizer, NCAR Colloquium on Application of Statistics to Modeling the Earth's Climate System, Boulder, CO
16 – 18 Nov 1983	Program Chair, AMS 9th Conference on PSAS, Hot Springs, AR

OTHER COMMUNITY SERVICE

2012 – 2014	Member, Working Group on Extremes, US Climate Variability and Predictability Research Program (CLIVAR)
2011 – 2013	Member, Working Group on Science of Climate Change, US National Climate Assessment Development and Advisory Committee
2011 – 2013	Member, American Statistical Association Advisory Committee on Climate Change Policy (Chair, 2013)
2006 – 2012	Member, External Engineering and Science Advisory Board, Center for Collaborative Adaptive Sensing of the Atmosphere (CASA)
2001 – 2012	AMS Committee on Probability and Statistics (Member, 2001–2006; Chair, 2006–2009; Ex Officio Member, 2009–2012)
2007 – 2008	Chair, Drafting Team, AMS Information Statement on probability forecasts
2005 – 2007	Contributing Author, Chapter 11, WG I, IPCC 4th Assessment Report
2002 – 2004	Secretary, The International Environmetrics Society (TIES)
1999 – 2002	Regional Representative (North America), Board of Directors, TIES
1999 – 2000	Contributing Author, Chapters 10 & 13, WG I, IPCC 3rd Assessment Report
1994 – 1995	Contributing Author, Chapter 3, WG I, IPCC 2nd Assessment Report
1989 – 1990	Contributing Author, Chapter 8, WG I, IPCC 1st Assessment Report
1981 – 1984	AMS Committee on Probability and Statistics (Member 1981–82, Chair 1982–83, Ex Officio Member 1984)
1978 – 1979	Secretary, Colorado-Wyoming Chapter, American Statistical Association
1977 – 1979	Adjunct Professor, Dept. of Economics, Univ. of Colorado, Boulder, CO

SERVICE TO NCAR

2009 – 2011	Member, NCAR Appointments Review Group (also 1998–2002)
2007 – 2013	Member, IMAGE Council
1995 – 2013	Member, NCAR Book Selection Committee
2000 – 2006	Member, Executive Committee, NCAR Scientists Assembly (Chair, 2005–06)
2005	Co-Chair, Proposal Review Committee, NCAR Directors Opportunity Fund
1993 – 1995	Member, NCAR Director's Office Divisional Equity Committee

TEACHING/EDUCATIONAL SERVICE

3/16	Introduction to univariate extreme value theory in climate sciences, Course on Beyond P-Values: The Statistics of Extremes, NCAR, Boulder, CO
2/14	Extreme value analysis, AMS Short Course on Statistical Analysis of Weather and Climate Extremes, Atlanta, GA
2/12	Extreme value analysis for geophysical applications, Vancouver, BC
10/09	Statistics of extremes in climate change, Short Course, Univ. Buenos Aires, Argentina
1/09	Tutorial on Extremes Toolkit, AMS Short Course on Statistics of Extreme Events, Phoenix, AZ

- 11/08 Statistics of extremes in climate change, Short Course, Michigan State Univ.
 6/07 Uncertainty, optimal use, and economic value of weather forecasts, COMET course on Mesoscale Analysis and Prediction, UCAR, Boulder, CO
 5/07 Statistics of extremes in climate change, CSIRO Short Course, Melbourne, Australia
 1/05 Application of probabilistic forecasts: Decision making with forecast uncertainty, AMS Short Course on Probabilistic Forecasting, San Diego, CA
 7/04 Tutorial on Extremes Toolkit, NCAR Summer Colloquium on Climate and Health
 1/04 Introduction to significance testing, AMS Short Course on Significance Testing, Model Evaluation, and Alternatives, Seattle, WA
 10/03 Statistical methods for weather and climate forecasting and decision making, Univ. Innsbruck, Austria
 5/03 Stochastic modeling of environmental time series, Swiss Federal Institute of Technology
 1/02 Economic value of climate forecasts, AMS Short Course on Verification of Climate Forecasts, Orlando, FL
 1990 Applied statistics, Univ. of California, Davis
 7/86 WMO Training Workshop on Modern Statistical Methods for Climate Data Applications, Nairobi, Kenya
 1979 – 83 Principles of statistics, regression analysis, statistical meteorology, Oregon St. Univ.

PH.D. COMMITTEES

- 2006 Marta Nogaj, Université Paris-Sud XI, France (*rapporteur & member*)
 2005 Daniel Cooley, Dept. Applied Mathematics, Univ. Colorado (*member*)
 1996 John Sansom, Inst. Stat. & Op. Res., Victoria Univ., Wellington, NZ (*external examiner*)
 1979 John Snyder, Dept. Economics, Univ. Colorado (*member*)

INTERNS/STUDENT VISITORS

- 2012 H el ene Benveniste,  cole des Mines, Paris, France
 2010 Anne Sabourin, Laboratoire des Sciences du Climat et l'Environnement, Paris, France
 2009 Ulf Cormann, University of Siegen, Germany
 2008 Jana Sillmann, Max Planck Institute for Meteorology, Hamburg, Germany
 2007 – 8 Marcus Walter, Dept. Meteorology, Pennsylvania State Univ. (*SOARS*)
 2007 – 8 John Henry, Dept. Statistics, Oregon State Univ.
 2006 Bret Harper, Energy & Resources Group, Univ. California, Berkeley (*SOARS*)
 2004 Matt Coleman, Dept. Meteorology, Pennsylvania State Univ. (*SOARS*)
 1998 Shelly Knight, Dept. Geography, Univ. of Colorado
 1995 Leslea Davison, Dept. Statistics, Rice Univ.

GRANTS

- 10/11 – 9/16 Network on statistical methods in atmospheric and oceanic sciences, *NSF/DMS* [Collaborator; Node Director 10/11 – 12/13]
- 5/11 – 4/15 Assessing high-impact weather response to climate variability and change utilizing extreme value theory, *NSF/EaSM* [Collaborator]
- 5/11 – 4/15 Integration of decadal climate predictions, ecological models and human decision-making models to support climate-resilient agriculture in the Argentine Pampas, *NSF/EaSM* [Co-PI]
- 9/07 – 8/12 Interactions between changing climate and technological innovations in agricultural decision-making: Implications for land use and sustainability of production systems, *NSF/CNH* [Co-PI]
- 6/05 – 9/06 Multivariate dependence in climate extremes, *ORNL* [Co-PI]
- 9/04 – 2/10 Understanding and modeling the scope of adaptive management in agroecosystems in the Pampas in response to interannual and decadal climate variability and other risk factors, *NSF/BE-CNH* [Co-PI]
- 7/04 – 6/08 A statistics program at NCAR, *NSF/DMS* [Co-PI]
- 7/99 – 6/04 Geophysical Statistics Program at the National Center for Atmospheric Research, *NSF/DMS* [PI]
- 1/97 – 12/01 Sensitivity analysis of the effect of changes in mean and variability of climate on crop production and regional economics in the southeastern U.S.: An integration of stochastic, climate, crop and economic modeling, *EPA* [Co-I]
- 1/97 – 12/99 Analysis of the effect of changing climate variability on crop production in the Southeast: An integration of stochastic modeling, regional climate modeling, crop modeling and remote sensing techniques, *NASA* [Co-I]
- 7/93 – 7/99 Collaboration between statistical and atmospheric sciences on modeling the climate system, *NSF/DMS* [PI]
- 9/95 – 9/98 Vegetation response to mesoscale climate variability in the mountainous West, *NSF/SBES* [Co-Investigator]
- 1/92 – 12/93 Precipitation variability and extreme events: Implications for climate models and climate change, *NOAA/OGP* [PI]
- 4/89 – 4/92 Methods for analyzing extreme events with application to scenario development for climate impact assessment, *EPA* [PI]
- 10/87 – 4/91 Studies of the optimal use and economic value of weather and climate information, *NSF/ATM* [Co-PI]
- 10/86 – 9/89 Identifying and coping with extreme meteorological events, *NSF (U.S.-Eastern Europe Cooperative Science Program)* [Co-PI]
- 4/85 – 9/87 Use of static and dynamic decision-making models to describe quality/value relationships for weather and climate information, *NSF/ATM* [Co-PI]
- 9/82 – 12/86 Case studies of the economic value of monthly and seasonal climate forecasts, *NOAA* [Co-PI]
- 10/82 – 7/85 Use of decision-making models to describe quality/value relationships for weather and climate information, *NSF/ATM* [Co-PI]
- 7/80 – 12/82 Dynamic decision-making models for assessing the value of weather and climate information, *NSF/ATM* [Co-Principal Investigator]

ARTICLES IN JOURNALS

- Barlow, M. et al. (14 others including R.W. Katz), 2019: North American extreme precipitation events and related large-scale meteorological patterns: a review of statistical methods, dynamics, modeling, and trends. *Climate Dynamics*, **53**, 6835–6875.
- Tye, M.R., R.W. Katz, and B. Rajagopalan, 2019: Climate change or climate regimes? Examining multi-annual variations in the frequency of precipitation extremes over the Argentine Pampas. *Climate Dynamics*, **53**, 245–260.
- Gilleland, E., R.W. Katz, and P. Naveau, 2017: Quantifying the risk of extreme events under climate change. *Chance*, **30.4**, 30–36.
- Gilleland, E., and R.W. Katz, 2016: extRemes 2.0: An extreme value analysis package in R. *Journal of Statistical Software*, **72**, doi: 10.18637/jss.v072.i08.
- Grotjahn, R. et al. (12 others including R.W. Katz), 2016: North American extreme temperature events and related large scale meteorological patterns: a review of statistical methods, dynamics, modeling, and trends. *Climate Dynamics*, **46**, 1151–1184.
- Verdin, A., B. Rajagopalan, W. Kleiber, and R.W. Katz, 2015: Coupled stochastic weather generation using spatial and generalized linear models. *Stochastic Environmental Research and Risk Assessment*, **29**, 347–356.
- Cheng, L., A. AghaKouchak, E. Gilleland, and R.W. Katz, 2014: Non-stationary extreme value analysis in a changing climate. *Climatic Change*, **127**, 353–369.
- Tye, M.R., D.B. Stephenson, G. Holland, and R.W. Katz, 2014: A Weibull approach for improving climate model projections of tropical cyclone maximum wind-speed distributions. *Journal of Climate*, **27**, 6119–6133.
- Vose, R.S. et al. (25 others including R.W. Katz), 2014: Monitoring and understanding changes in extremes: Extratropical storms, winds, and waves. *Bulletin of the American Meteorological Society*, **95**, 377–386.
- Rootzén, H., and R.W. Katz, 2013: Design Life Level: Quantifying risk in a changing climate. *Water Resources Research*, **49**, 5964–5972.
- Peterson, T.C. et al. (27 others including R.W. Katz), 2013: Monitoring and understanding changes in heat waves, cold waves, floods and droughts in the United States: State of knowledge. *Bulletin of the American Meteorological Society*, **94**, 821–834.
- Smith, A.B., and R.W. Katz, 2013: US billion-dollar weather and climate disasters: data sources, trends, accuracy, and biases. *Natural Hazards*, **67**, 387–410.
- Kunkel, K.E. et al. (24 others including R.W. Katz), 2013: Monitoring and understanding trends in extreme storms: State of knowledge. *Bulletin of the American Meteorological Society*, **94**, 499–514.
- Kleiber, W., R.W. Katz, and B. Rajagopalan, 2013: Daily minimum and maximum temperature simulation over complex terrain. *Annals of Applied Statistics*, **7**, 588–612.
- Kim, Y., R.W. Katz, B. Rajagopalan, G.P. Podestá, and E.M. Furrer, 2012: Reducing overdispersion in stochastic weather generators using a generalized linear modeling approach. *Climate Research*, **53**, 13–24.
- Kleiber, W., R.W. Katz, and B. Rajagopalan, 2012: Daily spatiotemporal precipitation simulation using latent and transformed Gaussian processes. *Water Resources Research*, **48**, W01523, doi: 10.1029/2011WR011105.

- Sillmann, J., M. Croci-Maspoli, M. Kallache, and R.W. Katz, 2011: Extreme cold winter temperatures in Europe under the influence of North Atlantic atmospheric blocking. *Journal of Climate*, **24**, 5899–5913.
- Gilleland, E., and R.W. Katz, 2011: A new software to analyze how extremes change over time. *Eos*, **92**, 13–14.
- Towler, E., B. Rajagopalan, E. Gilleland, R.S. Summers, D. Yates, and R.W. Katz, 2010: Modeling hydrologic and water quality extremes in a changing climate: a statistical approach based on extreme value theory. *Water Resources Research*, **46**, W11504, doi: 10.1029/2009WR008876.
- Furrer, E.M., R.W. Katz, M.D. Walter, and R. Furrer, 2010: Statistical modeling of hot spells and heat waves. *Climate Research*, **43**, 191–205.
- Katz, R.W., 2010: Statistics of extremes in climate change. *Climatic Change*, **100**, 71–76.
- Podestá, G., F. Bert, B. Rajagopalan, S. Apipattanavis, C. Laciana, E. Weber, W. Easterling, R. Katz, D. Letson, and A. Menendez, 2009: Decadal climate variability in the Argentine Pampas: regional impacts of plausible climate scenarios on agricultural systems. *Climate Research*, **40**, 199–210.
- Letson, D., C.E. Laciana, F.E. Bert, E.U. Weber, R.W. Katz, X.I. Gonzalez, and G.P. Podestá, 2009: Value of perfect ENSO phase predictions for agriculture: evaluating the impact of land tenure and decision objectives. *Climatic Change*, **97**, 145–170.
- Furrer, E.M., and R.W. Katz, 2008: Improving the simulation of extreme precipitation events by stochastic weather generators. *Water Resources Research*, **44**, W12439, doi: 10.1029/2008WR007316.
- Zheng, X., and R.W. Katz, 2008: Simulation of spatial dependence in daily rainfall using multisite generators. *Water Resources Research*, **44**, W09403, doi: 10.1029/2007WR006399.
- Zheng, X., and R.W. Katz, 2008: Mixture model of generalized chain-dependent processes and its application to simulation of interannual variability of daily rainfall. *Journal of Hydrology*, **349**, 191–199.
- Apipattanavis, S., G. Podestá, B. Rajagopalan, and R.W. Katz, 2007: A semiparametric multivariate and multisite weather generator. *Water Resources Research*, **43**, W11401, doi: 10.1029/2006WR005714.
- Harper, B.R., R.W. Katz, and R.C. Harriss, 2007: Statistical methods for quantifying the effect of the El Niño–Southern Oscillation on wind power in the northern Great Plains of the United States. *Wind Engineering*, **31**, 123–137.
- Furrer, E.M., and R.W. Katz, 2007: Generalized linear modeling approach to stochastic weather generators. *Climate Research*, **34**, 129–144.
- Katz, R.W., and M. Ehrendorfer, 2006: Bayesian approach to decision making using ensemble weather forecasts. *Weather and Forecasting*, **21**, 220–231.
- Katz, R.W., G.S. Brush, and M.B. Parlange, 2005: Statistics of extremes: Modeling ecological disturbances. *Ecology*, **86**, 1124–1134.
- Katz, R.W., M.B. Parlange, and C. Tebaldi, 2003: Stochastic modeling of the effects of large-scale circulation on daily weather in the southeastern U.S. *Climatic Change*, **60**, 189–216.
- Katz, R.W., M.B. Parlange, and P. Naveau, 2002: Statistics of extremes in hydrology. *Advances in Water Resources*, **25**, 1287–1304.
- Katz, R.W., 2002: Stochastic modeling of hurricane damage. *Journal of Applied Meteorology*, **41**, 754–762.

- Katz, R.W., 2002: Sir Gilbert Walker and a connection between El Niño and statistics. *Statistical Science*, **17**, 97–112.
- Katz, R.W., 2002: Techniques for estimating uncertainty in climate change scenarios and impact studies. *Climate Research*, **20**, 167–185.
- Sontakke, N.A., D.J. Shea, R.A. Madden, and R.W. Katz, 2001: Potential for long-range regional precipitation prediction over India. *Mausam*, **52**, 47–56.
- Parlange, M.B., and R.W. Katz, 2000: An extended version of the Richardson model for simulating daily weather variables. *Journal of Applied Meteorology*, **39**, 610–622.
- Katz, R.W., 1999: Extreme value theory for precipitation: Sensitivity analysis for climate change. *Advances in Water Resources*, **23**, 133–139.
- Katz, R.W., and X. Zheng, 1999: Mixture model for overdispersion of precipitation. *Journal of Climate*, **12**, 2528–2537.
- Katz, R.W., 1999: Moments of power transformed time series. *Environmetrics*, **10**, 301–307.
- Madden, R.A., D.J. Shea, R.W. Katz, and J.W. Kidson, 1999: The potential long-range predictability of precipitation over New Zealand. *International Journal of Climatology*, **19**, 405–421.
- Kiely, G., J.D. Albertson, M.B. Parlange, and R.W. Katz, 1998: Conditioning stochastic properties of daily precipitation on indices of atmospheric circulation. *Meteorological Applications*, **5**, 75–87.
- Katz, R.W., and M.B. Parlange, 1998: Overdispersion phenomenon in stochastic modeling of precipitation. *Journal of Climate*, **11**, 591–601.
- Katz, R.W., and M.B. Parlange, 1996: Mixtures of stochastic processes: Application to statistical downscaling. *Climate Research*, **7**, 185–193.
- Katz, R.W., 1996: Use of conditional stochastic models to generate climate change scenarios. *Climatic Change*, **32**, 237–255.
- Tarleton, L.F., and R.W. Katz, 1995: Statistical explanation for trends in extreme summer temperatures at Phoenix, Arizona. *Journal of Climate*, **8**, 1704–1708.
- Katz, R.W., and M.B. Parlange, 1995: Generalizations of chain-dependent processes: Application to hourly precipitation. *Water Resources Research*, **31**, 1331–1341.
- Chu, P.-S., R.W. Katz, and P. Ding, 1995: Modelling and forecasting seasonal precipitation in Florida: A vector time-domain approach. *International Journal of Climatology*, **15**, 53–64.
- Brown, B.G., and R.W. Katz, 1995: Regional analysis of temperature extremes: Spatial analog for climate change? *Journal of Climate*, **8**, 108–119.
- Katz, R.W., and B.G. Brown, 1994: Sensitivity of extreme events to climate change: The case of autocorrelated time series. *Environmetrics*, **5**, 451–462.
- Katz, R.W., and J. Garrido, 1994: Sensitivity analysis of extreme precipitation events. *International Journal of Climatology*, **14**, 985–999.
- Downton, M.W., and R.W. Katz, 1993: A test for inhomogeneous variance in time-averaged temperature data. *Journal of Climate*, **6**, 2448–2464.
- Katz, R.W., 1993: Towards a statistical paradigm for climate change. *Climate Research*, **2**, 167–175.
- Katz, R.W., and M.B. Parlange, 1993: Effects of an index of atmospheric circulation on stochastic properties of precipitation. *Water Resources Research*, **29**, 2335–2344.
- Katz, R.W., 1993: Dynamic cost-loss ratio decision-making model with an autocorrelated climate variable. *Journal of Climate*, **6**, 151–160.
- Katz, R.W., 1992: Role of statistics in the validation of general circulation models. *Climate Research*, **2**, 35–45.

- Katz, R.W., and B.G. Brown, 1992: Extreme events in a changing climate: Variability is more important than averages. *Climatic Change*, **21**, 289–302 (Reprinted in D.I. Stern, F. Jotzo, and L. Dobes (eds.), 2014: *Climate Change and the World Economy*, Edward Elgar Publishing, Northampton, MA).
- Katz, R.W., and B.G. Brown, 1991: The problem of multiplicity in research on teleconnections. *International Journal of Climatology*, **11**, 505–513.
- Katz, R.W., and A.H. Murphy, 1990: Quality/value relationships for imperfect weather forecasts in a prototype multistage decision-making model. *Journal of Forecasting*, **9**, 75–86 [with correspondence, **11**, 86–88 (1992)].
- Faragó, T., I. Dobi, R.W. Katz, and I. Matyasovszky, 1989: Meteorological application of extreme value theory: Problems of finite, dependent and non-homogeneous samples. *Időjárás*, **93**, 261–275.
- Katz, R.W., 1989: Statistics and decision making for extreme meteorological events. *Időjárás*, **93**, 23–35.
- Chu, P.-S., and R.W. Katz, 1989: Spectral estimation from time series models with relevance to the Southern Oscillation. *Journal of Climate*, **2**, 86–90.
- Katz, R.W., 1988: Statistical procedures for making inferences about climate variability. *Journal of Climate*, **1**, 1057–1064.
- Katz, R.W., 1988: Use of cross correlations in the search for teleconnections. *Journal of Climatology*, **8**, 241–253.
- Katz, R.W., B.G. Brown, and A.H. Murphy, 1987: Decision-analytic assessment of the economic value of weather forecasts: The fallowing/planting problem. *Journal of Forecasting*, **6**, 77–89.
- Katz, R.W., and A.H. Murphy, 1987: Quality/value relationship for imperfect information in the umbrella problem. *American Statistician*, **41**, 187–189.
- Chu, P.-S., and R.W. Katz, 1987: Measures of predictability with applications to the Southern Oscillation. *Monthly Weather Review*, **115**, 1542–1549.
- Brown, B.G., R.W. Katz, and A.H. Murphy, 1986: On the economic value of seasonal-precipitation forecasts: The fallowing/planting problem. *Bulletin of the American Meteorological Society*, **67**, 833–841.
- Katz, R.W., and M.H. Glantz, 1986: Anatomy of a rainfall index. *Monthly Weather Review*, **114**, 764–771.
- Glantz, M.H., and R.W. Katz, 1985: Drought as a constraint to development in Sub-Saharan Africa. *Ambio*, **XIV**, 334–339.
- Chu, P.-S., and R.W. Katz, 1985: Modeling and forecasting the Southern Oscillation: A time-domain approach. *Monthly Weather Review*, **113**, 1876–1888.
- Murphy, A.H., R.W. Katz, R.L. Winkler, and W.-R. Hsu, 1985: Repetitive decision making and the value of forecasts in the cost–loss ratio situation: A dynamic model. *Monthly Weather Review*, **113**, 801–813.
- Brown, B.G., R.W. Katz, and A.H. Murphy, 1985: Exploratory analysis of precipitation events with implications for stochastic modeling. *Journal of Climate and Applied Meteorology*, **24**, 57–67.
- Mearns, L.O., R.W. Katz, and S.H. Schneider, 1984: Extreme high-temperature events: Changes in their probabilities with changes in mean temperature. *Journal of Climate and Applied Meteorology*, **23**, 1601–1613 [with correspondence, **24**, 1280 (1985)].
- Adams, R.M., T.D. Crocker, and R.W. Katz, 1984: Assessing the adequacy of natural science information: A Bayesian approach. *The Review of Economics and Statistics*, **LXVI**, 568–575.

- Brown, B.G., R.W. Katz, and A.H. Murphy, 1984: Time series models to simulate and forecast wind speed and wind power. *Journal of Climate and Applied Meteorology*, **23**, 1184–1195.
- Stewart, T.R., R.W. Katz, and A.H. Murphy, 1984: Value of weather information: A descriptive study of the fruit-frost problem. *Bulletin of the American Meteorological Society*, **65**, 126–137.
- Katz, R.W., 1983: Statistical procedures for making inferences about precipitation changes simulated by an atmospheric general circulation model. *Journal of the Atmospheric Sciences*, **40**, 2193–2201.
- Winkler, R.L., A.H. Murphy, and R.W. Katz, 1983: The value of climate information: A decision-analytic approach. *Journal of Climatology*, **3**, 187–197.
- Katz, R.W., 1982: Statistical evaluation of climate experiments with general circulation models: A parametric time series modeling approach. *Journal of the Atmospheric Sciences*, **39**, 1446–1455.
- Katz, R.W., A.H. Murphy, and R.L. Winkler, 1982: Assessing the value of frost forecasts to orchardists: A dynamic decision-making approach. *Journal of Applied Meteorology*, **21**, 518–531.
- Katz, R.W., 1981: On some criteria for estimating the order of a Markov chain. *Technometrics*, **23**, 243–249.
- Katz, R.W., and R.R. Garcia, 1981: Statistical relationships between hailfall and damage to wheat. *Agricultural Meteorology*, **24**, 29–43.
- Katz, R.W., and R.H. Skaggs, 1981: On the use of autoregressive-moving average processes to model meteorological time series. *Monthly Weather Review*, **109**, 479–484.
- Katz, R.W., 1979: Parsimony in modeling daily precipitation. *Water Resources Research*, **15**, 1628–1630.
- Katz, R.W., 1979: Sensitivity analysis of statistical crop-weather models. *Agricultural Meteorology*, **20**, 291–300.
- Katz, R.W., and M.H. Glantz, 1979: Weather modification for food production: Panacea or placebo? *Journal of Soil and Water Conservation*, **34**, 132–134.
- Katz, R.W., 1978: Persistence of subtropical African droughts. *Monthly Weather Review*, **106**, 1017–1021.
- Katz, R.W., 1977: An application of chain-dependent processes to meteorology. *Journal of Applied Probability*, **14**, 598–603.
- Katz, R.W., 1977: Precipitation as a chain-dependent process. *Journal of Applied Meteorology*, **16**, 671–676.
- Glantz, M.H., and R.W. Katz, 1977: When is a drought a drought? *Nature*, **267**, 192–193 [with correspondence, **271**, 7 (1978)].
- Katz, R.W., 1977: Assessing the impact of climatic change on food production. *Climatic Change*, **1**, 85–96.
- Katz, R.W., 1974: Computing probabilities associated with the Markov chain model for precipitation. *Journal of Applied Meteorology*, **13**, 953–954.

COMMENTS/EDITORIALS

- Katz, R.W., P.F. Craigmile, P. Guttorp, M. Haran, B. Sansó, and M.L. Stein, 2013: Uncertainty analysis in climate change assessments. *Nature Climate Change*, **3**, 769–771.

- Karl, T.R., and R.W. Katz, 2012: A new face for climate dice. *Proceedings of the National Academy of Sciences*, **109**, 14720–14721.
- Katz, R.W., 2010: Discussion on “Predicting losses of residential structures in the state of Florida by the public hurricane loss evaluation model” by S. Hamid et al. *Statistical Methodology*, **7**, 592–595.
- Katz, R.W., and P. Naveau, 2010: Editorial: special issue on statistics of extremes in weather and climate. *Extremes*, **13**, 107–108.
- Katz, R.W., 2006: Discussion of “Bayesian palaeoclimate reconstruction” by J. Haslett et al. *Journal of the Royal Statistical Society, Series A*, **169**, 434.
- Katz, R.W., 2004: A knight to remember. Letter to Editor on review by D. Teresi of *Extreme Measures: The Dark Visions and Bright Ideas of Francis Galton* by M. Brookes. *New York Times Book Review*, **CIX** (46), p. 6.
- Katz, R.W., 1995: Comments on “Binomial and negative binomial analogues under correlated Bernoulli trials” by R. Viveros *et al.* (with reply). *American Statistician*, **49**, 325–326.
- Katz, R.W., 1989: Discussion of “Space-time modelling with long-memory dependence: Assessing Ireland’s wind power resource” by J. Haslett and A.E. Raftery. *Applied Statistics*, **38**, 35.
- Katz, R.W., 1984: Discussion of “A model fitting analysis of daily rainfall data” by R.D. Stern and R. Coe. *Journal of the Royal Statistical Society, Series A*, **147**, 29.

BOOKS

- Katz, R.W., and A.H. Murphy (eds.), 1997: *Economic Value of Weather and Climate Forecasts*. Cambridge Univ. Press, Cambridge, U.K., 237 pp.
- Glantz, M.H., R.W. Katz, and N. Nicholls (eds.), 1991: *Teleconnections Linking Worldwide Climate Anomalies: Scientific Basis and Societal Impact*. Cambridge Univ. Press, Cambridge, U.K., 535 pp.
- Murphy, A.H., and R.W. Katz (eds.), 1985: *Probability, Statistics, and Decision Making in the Atmospheric Sciences*. Westview Press, Boulder, CO, 547 pp.

CHAPTERS IN BOOKS/OTHER CONTRIBUTIONS

- Katz, R.W., 2021: Statistical issues in detection of trends in losses from extreme weather and climate events. *Evaluating Climate Change Impacts*, V. Lyubchich et al. (eds.), Chapman and Hall/CRC Press, Boca Raton, FL, pp. 165–186.
- Katz, R.W., 2016: Weather and climate disasters. In *Extreme Value Modeling and Risk Analysis: Methods and Applications*, D.K. Dey and J. Yan (eds.), Chapman and Hall/CRC Press, Boca Raton, FL, pp. 439–460.
- Katz, R.W., 2016: Economic impact of extreme events: An approach based on extreme value theory. In *Extreme Events: Observations, Modeling and Economics*, M. Chavez, M. Ghil, and J. Urrutia-Fucugauchi (eds.), American Geophysical Union Monograph 214, Wiley, Hoboken, NJ, pp. 207–217.

- Katz, R.W., 2013: Statistical methods for nonstationary extremes. In *Extremes in a Changing Climate: Detection, Analysis and Uncertainty*, A. AghaKouchak, D. Easterling, K. Hsu, S. Schubert, and S. Sorooshian (eds.), Springer, Dordrecht, Netherlands, pp. 15–37.
- Katz, R.W., 2013: Hydrological extremes. In *Encyclopedia of Environmetrics*, Second Edition, A.H. El-Shaarawi and W.W. Piegorsch (eds.), Wiley, Chichester, U.K., pp. 1302–1306 [updated version in *Wiley StatsRef: Statistics Reference Online*, N. Balakrishnan et al. (eds.), 2016].
- Katz, R.W., 2013: Extremal events. In *Encyclopedia of Environmetrics*, Second Edition, A.H. El-Shaarawi and W.W. Piegorsch (eds.), Wiley, Chichester, U.K., pp. 950–954.
- Katz, R.W., and J.K. Lazo, 2011: Economic value of weather and climate forecasts. In *The Oxford Handbook of Economic Forecasting*, M.P. Clements and D.F. Hendry (eds.), Oxford Univ. Press, NY, pp. 559–583.
- Katz, R.W., 2007: Environmental sciences. In *Statistical Analysis of Extreme Values with Applications to Insurance, Finance, Hydrology and Other Fields* (Third Edition), R.-D. Reiss and M. Thomas, Birkhäuser, Basel, Switzerland, pp. 353–367.
- Katz, R.W., M.B. Parlange, and C. Tebaldi, 2003: Stochastic modeling of the effects of large-scale circulation on daily weather in the southeastern U.S. *Issues in the Impacts of Climate Variability and Change on Agriculture: Applications to the Southeastern United States*, L.O. Mearns (ed.), Kluwer, Dordrecht, pp. 189–216.
- Katz, R.W., M.B. Parlange, and P. Naveau, 2003: Statistics of extremes in hydrology. In *25 Years of Advances in Water Resources*, C.T. Miller, M.B. Parlange, and S.M. Hassanizadeh (eds.), Elsevier, Amsterdam, pp. 427–444.
- Katz, R.W., and A.H. Murphy, 1997: Forecast value: prototype decision-making models. In *Economic Value of Weather and Climate Forecasts*, R.W. Katz and A.H. Murphy (eds.), Cambridge Univ. Press, Cambridge, U.K., pp. 183–217.
- Brown, B.G., and R.W. Katz, 1991: Use of statistical methods in the search for teleconnections: past, present, and future. In *Teleconnections Linking Worldwide Climate Anomalies: Scientific Basis and Societal Impact*, M.H. Glantz, R.W. Katz, and N. Nicholls (eds.), Cambridge Univ. Press, Cambridge, U.K., pp. 371–400.
- Nicholls, N., and R.W. Katz, 1991: Teleconnections and their implications for long-range forecasts. In *Teleconnections Linking Worldwide Climate Anomalies: Scientific Basis and Societal Impact*, M.H. Glantz, R.W. Katz, and N. Nicholls (eds.), Cambridge Univ. Press, Cambridge, U.K., pp. 511–525.
- Katz, R.W., 1988: Statistics and decision making for extreme meteorological events. In *Identifying and Coping with Extreme Meteorological Events*, E. Antal and M.H. Glantz (eds.), Hungarian Meteorological Service, Budapest, pp. 15–32.
- Katz, R.W., 1988: Statistics of climate change: Implications for scenario development. In *Societal Responses to Regional Climatic Change: Forecasting by Analogy*, M.H. Glantz (ed.), Westview Press, Boulder, CO, pp. 95–112.
- Adams, R.M., T.D. Crocker, and R.W. Katz, 1985: Yield response data in benefit-cost analysis of pollution-induced vegetation damage. In *Sulfur Dioxide and Vegetation: Physiology, Ecology, and Policy Issues*, W.E. Winner, H.A. Mooney, and R.A. Goldstein (eds.), Stanford Univ. Press, Stanford, CA, pp. 56–72.
- Katz, R.W., 1985: Probabilistic models. In *Probability, Statistics, and Decision Making in the Atmospheric Sciences*, A.H. Murphy and R.W. Katz (eds.), Westview Press, Boulder, CO, pp. 261–288.

Katz, R.W., and M.H. Glantz, 1977: Rainfall statistics, droughts and desertification in the Sahel. In *Desertification: Environmental Degradation in and Around Arid Lands*, M.H. Glantz (ed.), Westview Press, Boulder, CO, pp. 81–102.

BOOK REVIEWS

- Katz, R.W., 2007: Review of *Statistical Methods in the Atmospheric Sciences (2nd Ed.)* by D.S. Wilks. *Bulletin of the American Meteorological Society*, **88**, 741–743.
- Katz, R.W., 2004: Review of *Forecast Verification: A Practitioner's Guide to Atmospheric Science* by I.T. Jolliffe and D.B. Stephenson (eds.). *Biometrics*, **60**, 566–567.
- Pielke, R., Jr., M. Betsill, M. Downton, J. Firor, D. Jamieson, R. Katz, M. Lahsen, J. Magistro, L. Mearns, and K. Miller, 1999: Review of *Human Choice and Climate Change*, by S. Rayner and E. Malone (eds.). *Bulletin of the American Meteorological Society*, **80**, 1441–1443.
- Katz, R.W., 1999: Review of *Computational Statistics in Climatology* by I. Polyak. *Climatic Change*, **41**, 127–130.
- Katz, R.W., 1981: Review of *Statistical Analysis of Weather Modification Experiments* by E.J. Wegman and D.J. DePriest (eds.). *Biometrics*, **37**, 868.
- Katz, R.W., 1981: Review of *The Rainmakers: American "Pluviculture" to World War II* by C.C. Spence. *Nature*, **290**, 654.

PROCEEDINGS

- Katz, R.W., and R. Grotjahn, 2014: Statistical methods for relating temperature extremes to Large-Scale Meteorological Patterns. *U.S. CLIVAR Variations*, **12**, pp. 4–7.
- Podestá, G., F. Bert, B. Rajagopalan, S. Apipattanavis, E. Weber, C. Laciana, W. Easterling, R. Katz, and D. Letson, 2007: Climate and complexity in agricultural production systems of the Argentine Pampas. *Extended Abstracts, Integrating Analysis of Regional Climate Change and Response Options: An Expert Meeting on Regional Impacts, Adaptation, Vulnerability, and Mitigation*, Nadi, Fiji.
- Gilleland, E., and R.W. Katz, 2006: Analyzing seasonal to interannual extreme weather and climate variability with the extremes toolkit. *Preprints, AMS 18th Conference on Climate Variability and Change*, Atlanta, GA (available online at: ams.confex.com/ams/pdfpapers/101830.pdf).
- Katz, R.W., 2002: Do weather or climate variables and their impacts have heavy-tailed distributions? *Preprints, AMS 16th Conference on Probability and Statistics in the Atmospheric Sciences*, Orlando, FL, pp. J84–J87.
- Naveau, P., R.W. Katz, and M.W. Moncrieff, 2001: Extremes and climate: An introduction and a case study. *Notes de l'Institut Pierre Simon Laplace*. ISSN 1626-8334, V. 11, pp. 4–22.
- Katz, R.W., 2000: Stochastic modeling of damage associated with extreme weather events. *Preprints, AMS 12th Conference on Applied Climatology*, Asheville, NC, pp. 272–275.
- Katz, R.W., 1999: Techniques for estimating uncertainty in climate change scenarios and impact studies. *Representing Uncertainty in Climate Change Scenarios and Impact Studies*, T.R. Carter, M. Hulme, and D. Viner (eds.), Proceedings of ECLAT-2 Helsinki Workshop, CRU, Norwich, UK, pp. 38–53.

- Katz, R.W., 1998: Extreme value theory for precipitation: Implications for climate change. *Preprints, AMS 14th Conference on Probability and Statistics in the Atmospheric Sciences*, Phoenix, AZ, pp. J57–J61.
- Katz, R.W., 1996: Statistical description of climate and detection of change. *Final Report, An Institute on the Economics of the Climate Resource*, K.A. Miller and R.K. Parkin (eds.), NCAR, Boulder, CO, pp. 205–230.
- Katz, R.W., 1996: Valuation of improved weather forecasts. *Final Report, An Institute on the Economics of the Climate Resource*, K.A. Miller and R.K. Parkin (eds.), NCAR, Boulder, CO, pp. 259–274.
- Katz, R.W., and M.B. Parlange, 1996: Overdispersion phenomenon in stochastic modeling of daily precipitation. *Preprints, AMS 13th Conference on Probability and Statistics in Atmospheric Sciences*, San Francisco, CA, pp. 291–294.
- Katz, R.W., 1995: Mixtures of stochastic processes: Application to generation of climate change scenarios. *Preprints, 6th International Meeting on Statistical Climatology*, Galway, Ireland, pp. 527–530.
- Shea, D.J., N.A. Sontakke, R.A. Madden, and R.W. Katz, 1995: The potential for long-range prediction over India for the southwest monsoon season: An analysis of variance approach. *Preprints, 6IMSC*, Galway, Ireland, pp. 475–477.
- Katz, R.W., 1995: Role of stochastic weather generators in climate impact assessment. *Preprints, AMS 9th Conference on Applied Climatology*, Dallas, TX, pp. 269–272.
- Katz, R.W., 1994: Changes in climate variability and extremes. *Proceedings of the Third Japan-U.S. Workshop on Global Change Modeling and Assessment: Improving Methodologies and Strategies*, Honolulu, HI, pp. 159–163.
- Katz, R.W., 1994: Trends in frequency of extreme temperatures: Implications for impact studies. *Proceedings, DOE Workshop on Asymmetric Change of Daily Temperature Range*, College Park, MD, pp. 429–431.
- Katz, R.W., and M.B. Parlange, 1993: Induced stochastic models in hydrology. *Proceedings, Stochastic and Statistical Methods in Hydrology and Environmental Engineering*, Waterloo, Ontario, pp. 99–100.
- Tarleton, L.F., and R.W. Katz, 1993: Effect of urban heat island on temperature variability and extremes. *Preprints, AMS 8th Conference on Applied Climatology*, Anaheim, CA, pp. J104–J107.
- Katz, R.W., 1992: Quality/value relationships for forecasts of an autocorrelated climate variable. *Preprints, 5IMSC*, Toronto, Ontario, pp. J91–J95.
- Brown, B.G., and R.W. Katz, 1992: Estimating the sensitivity of extreme events to climate change: The effects of autocorrelation and choice of extreme value distribution. *Preprints, 5IMSC*, Toronto, Ontario, pp. 297–300.
- Chu, P.-S., P. Ding, and R.W. Katz, 1992: A vector time series modeling approach with application to seasonal precipitation in Florida. *Preprints, 5IMSC*, Toronto, Ontario, pp. 277–280.
- Katz, R.W., 1991: Towards a statistical paradigm for climate change. *Preprints, AMS 7th Conference on Applied Climatology*, Salt Lake City, UT, pp. 4–9.
- Brown, B.G., and R.W. Katz, 1991: Characteristics of extreme temperature events in the U.S. Midwest and Southeast: Implications for the effects of climate change. *Preprints, AMS 7th Conference on Applied Climatology*, Salt Lake City, UT, pp. J30–J36.

- Downton, M.W., and R.W. Katz, 1991: Changing temperatures: Climate change or inhomogeneous data? *Preprints, AMS 7th Conference on Applied Climatology*, Salt Lake City, UT, pp. 111–118.
- Katz, R.W., and B.G. Brown, 1989: Climate change for extreme events: An application of the theory of extreme values. *Preprints, AMS 11th Conference on Probability and Statistics in Atmospheric Sciences*, Monterey, CA, pp. 10–15.
- Katz, R.W., and T. Faragó, 1989: Applications of the theory of extreme values in climatology. *Proceedings, 4IMSC*, Rotorua, New Zealand, pp. 223–226.
- Chu, P.-S., and R.W. Katz, 1989: Spectrum of univariate time series models with application to the Southern Oscillation. *Proceedings, 4IMSC*, Rotorua, New Zealand, pp. 110–114.
- Brown, B.G., and R.W. Katz, 1989: Use of statistical methods in the search for teleconnections. *Proceedings, 4IMSC*, Rotorua, New Zealand, pp. 87–92.
- Brown, B.G., and R.W. Katz, 1987: A historical perspective on the role of statistics in teleconnections research. *Preprints, AMS 10th Conference on Probability and Statistics in Atmospheric Sciences*, Edmonton, Alberta, pp. 101–106.
- Katz, R.W., 1987: On the convexity of quality/value relations for imperfect information about weather or climate. *Preprints, AMS 10th Conference on Probability and Statistics in Atmospheric Sciences*, Edmonton, Alberta, pp. 91–94.
- Katz, R.W., and A.H. Murphy, 1986: Quality/value relationships for forecasts in the dynamic cost–loss ratio model: Infinite horizon, discounted case. *Proceedings, 3IMSC*, Vienna, Austria, pp. 289–294.
- Brown, B.G., R.W. Katz, and A.H. Murphy, 1985: A case study of the economic value of seasonal precipitation forecasts in the fallowing/planting problem. *Preprints, AMS 9th Conference on Probability and Statistics in Atmospheric Sciences*, Virginia Beach, VA, pp. 219–225.
- Katz, R.W., 1985: Properties of cross correlation functions: Implications for teleconnections research. *Preprints, AMS 9th Conference on Probability and Statistics in Atmospheric Sciences*, Virginia Beach, VA, pp. 271–275.
- Katz, R.W., and M.H. Glantz, 1985: On the economic and societal value of long-range weather prediction. *Proceedings of the Symposium on Current Problems of Medium- and Long-Range Weather Forecasts*, Budapest, Hungary, pp. 17–20.
- Brown, B.G., R.W. Katz, and A.H. Murphy, 1983: Time series models of hourly wind speed and wind power. *Preprints, AMS 8th Conference on Probability and Statistics in Atmospheric Sciences*, Hot Springs, AR, pp. 31–38.
- Murphy, A.H., R.L. Winkler, and R.W. Katz, 1983: Use of decision analysis to assess the actual and potential value of short-range climate forecasts. *Preprints, 2IMSC*, Lisbon, Portugal, pp. 9.4.1–9.4.6.
- Brown, B.G., R.W. Katz, and A.H. Murphy, 1983: Exploratory analysis of precipitation events in western Oregon. *Preprints, 2IMSC*, Lisbon, Portugal, pp. 3.3.1–3.3.6.
- Murphy, A.H., and R.W. Katz, 1981: Statistical methodology for first detection of carbon dioxide effects in the atmosphere. *Proceedings, DOE Workshop on First Detection of Carbon Dioxide Effects*, Harpers Ferry, WV, pp. 165–174.
- Katz, R.W., A.H. Murphy, and R.L. Winkler, 1981: Markov decision processes and the value of meteorological information. *Preprints, AMS 7th Conference on Probability and Statistics in Atmospheric Sciences*, Monterey, CA, pp. 125–128.

- Brown, B.G., R.W. Katz, and A.H. Murphy, 1981: An evaluation of statistical distributions of wind power. *Preprints, AMS 7th Conference on Probability and Statistics in Atmospheric Sciences*, Monterey, CA, pp. 142–147.
- Winkler, R.L., A.H. Murphy, and R.W. Katz, 1980: Assessing the value of climate information. *Proceedings, MITRE Conference on Climate and Risk*, Arlington, VA, pp. 3-1–3-24.
- Katz, R.W., 1980: Recent developments in statistical model building with a view toward forecasting. *Preprints, WMO Symposium on Probabilistic and Statistical Methods in Weather Forecasting*, Nice, France, pp. 115–119.
- Katz, R.W., 1979: Estimating the order of a Markov chain: Another look at the Tel Aviv rainfall data. *Preprints, AMS 6th Conference on Probability and Statistics in Atmospheric Sciences*, Banff, Alberta, pp. 217–221.
- Katz, R.W., and A.H. Murphy, 1979: Assessing the value of frost forecasts to orchardists: A decision-analytic approach. *Preprints, AMS 14th Conference on Agriculture and Forest Meteorology*, Minneapolis, MN, pp. 34–37.
- Winkler, R.L., A.H. Murphy, and R.W. Katz, 1977: The consensus of subjective probability forecasts: Are two, three, ... heads better than one? *Preprints, AMS 5th Conference on Probability and Statistics in Atmospheric Sciences*, Las Vegas, NV, pp. 57–62.
- Katz, R.W., 1977: Techniques for detecting dependence between meteorological variables. *Preprints, AMS 5th Conference on Probability and Statistics in Atmospheric Sciences*, Las Vegas, NV, pp. 101–105.
- Katz, R.W., 1977: Sensitivity analysis of statistical crop-weather models. *Preprints, AMS 13th Conference on Agriculture and Forest Meteorology*, West Lafayette, IN, pp. 1–2.
- Katz, R.W., 1975: Precipitation as a chain-dependent process. *Preprints, AMS 4th Conference on Probability and Statistics in Atmospheric Sciences*, Tallahassee, FL, pp. 131–134.

REPORTS / MISCELLANEOUS PUBLICATIONS

- Gilleland, E., and R.W. Katz, 2016: in2extRemes: Into the R Package extRemes – Extreme value analysis for weather and climate applications. *NCAR Technical Note*, NCAR/TN-523+STR, Boulder, CO, 102 pp.
- Grotjahn, R. et al. (10 others including R. Katz), 2014: US CLIVAR workshop on analyses, dynamics, and modeling of large-scale meteorological patterns associated with extreme temperature and precipitation events. *U.S. CLIVAR Report 2014-2*, US CLIVAR Project Office, Washington, DC, 42 pp.
- Madden, R.A., and R.W. Katz (coordinators), 1994: Lecture notes from Colloquium on Applications of Statistics to Modeling the Earth's Climate System. *NCAR Technical Note*, NCAR/TN-409+PROC, Boulder, CO, 123 pp.
- Katz, R.W., and B.G. Brown, 1992: Methods for analyzing extreme events under climate change. *Final Report to U.S. Environmental Protection Agency*, NCAR, Boulder, CO, 31 pp.
- Faragó, T., and R.W. Katz, 1990: Extremes and design values in climatology. *Report No. WCAP-14, WMO/TD-No. 386*, World Meteorological Organization, Geneva, 43 pp.
- Glantz, M.H., R.W. Katz, and M.E. Krenz (eds.), 1987: Economic and societal impacts of the 1982-83 worldwide climate anomalies. Report for the United Nations Environment Programme, NCAR, Boulder, CO, 105 pp.

- Glantz, M.H., and R.W. Katz, 1987: African drought and its impacts: Revived interest in a recurrent phenomenon. *Desertification Control Bulletin No. 14*, 22–30.
- Istok, J.D., B.G. Brown, L. Boersma, R.W. Katz, and A.H. Murphy, 1984: Statistical analysis of climatological data to characterize erosion potential: 5. Joint precipitation and freezing events in western Oregon and 6. Joint precipitation and freezing events in eastern Oregon/Washington. *Agricultural Experiment Station Special Reports 690 and 691*, Oregon State Univ., Corvallis, OR, 121 and 126 pp.
- Brown, B.G., J.D. Istok, R.W. Katz, A.H. Murphy, and L. Boersma, 1983 and 1984: Statistical analysis of climatological data to characterize erosion potential: 3. Freezing events in western Oregon and 4. Freezing events in eastern Oregon/Washington. *Agricultural Experiment Station Special Reports 688 and 689*, Oregon State Univ., Corvallis, OR, 146 and 117 pp.
- Brown, B.G., J.D. Istok, R.W. Katz, and A.H. Murphy, 1983: Statistical analysis of climatological data to characterize erosion potential: 1. Precipitation events in western Oregon and 2. Precipitation events in eastern Oregon/Washington. *Agricultural Experiment Station Special Reports 686 and 687*, Oregon State Univ., Corvallis, OR, 287 and 178 pp.
- Katz, R.W., 1983: Procedures for determining the statistical significance of changes in variability simulated by an atmospheric general circulation model. *Climatic Research Institute Report No. 48*, Oregon State Univ., Corvallis, OR, 23 pp.
- Brown, B.G., R.W. Katz, A.H. Murphy, and B.A. Peterson, 1982: Time series models for simulating hourly wind power. *Report No. BPA 82-10, DOE/BP-154*, Bonneville Power Administration, Portland, OR, 51 pp.
- Katz, R.W., 1982: Procedures for determining the statistical significance of precipitation changes simulated by an atmospheric general circulation model. *Climatic Research Institute Report No. 33*, Oregon State Univ., Corvallis, OR, 22 pp.
- Katz, R.W., 1980: Statistical evaluation of climate experiments with general circulation models: Inferences about means. *Climatic Research Institute Report No. 15*, Oregon State Univ., Corvallis, OR, 16 pp.
- Katz, R.W., N.D. Strommen, and S.K. LeDuc, 1975: Technology considerations in wheat yield modeling for the Great Plains. *Environmental Data Service* (July), pp. 10–15.