RICHARD L. SMITH: CURRICULUM VITAE
Last updated: June 2, 2021

PERSONAL INFORMATION

Office: 303 Hanes Building, Department of Statistics and Operations Research, University of North Carolina, Chapel Hill, NC 27599-3260.
Email: rls@email.unc.edu
Citizen of United Kingdom. Permanent Resident of the U.S.A. Married with two sons.

CAREER HISTORY

Mark L. Reed III Distinguished Professor of Statistics, University of North Carolina, Chapel Hill, since July 2004.
Director of the Statistical and Applied Mathematical Sciences Institute (SAMSI), 2010-2017
Associate Director of SAMSI, January-June 2018
Professor of Statistics, University of North Carolina, Chapel Hill, January 1991-present (on leave, 1994-1996).
Chair of Statistics Department from July 2000 until June 2002.
Joint appointment as Professor of Biostatistics, from February 2008.
Professor of Statistical Science, Cambridge University, U.K. (1994-1996)
Professor of Statistics, University of Surrey, U.K. (1985-1990)
Lecturer in Statistics, Imperial College, London, U.K. (1979-1985)
Visiting positions in many institutions including University of Chicago, Australian National University, Technion, etc.

EDUCATION

B.A. in Mathematics (First Class), Oxford University, 1972-1975 (M.A. 1985).
Ph.D. in Operations Research, Cornell University, 1975-1979. Ph.D. Advisor: Howard M. Taylor III.
No postdoctoral position.

HONORS

Elected Fellow of the American Association for the Advancement of Science (AAAS), 2020
American Meteorological Society Editors' Award, 2017
Distinguished Service Award, North Carolina Chapter of the American Statistical Association, October 2014.
J. Stuart Hunter Lecturer, The International Environmetrics Society, 2004.
2004 Statistical Science Award, Centers for Disease Control and Prevention (awarded jointly with S. Kolenikov and L.H. Cox for the paper "Spatiotemporal modeling of PM2.5 data with missing values", Journal of Geophysical Research 2003; 108:11-1 11-11).
Fellow, American Statistical Association, 2000.
Distinguished Achievement Medal, Section on Statistics and the Environment, American Statistical Association, 2000.
Royal Statistical Society, Guy Medal in Silver, 1991.
Fellow, Institute of Mathematical Statistics, 1991.
Member of the International Statistical Institute, 1991.
Chartered Statistician of the Royal Statistical Society, 1994.

EDITORIAL SERVICE

Member of Statistical Board of Reviewing Editors for *Science* , since 2014.
Series Co-Editor (one of six), Monographs on Statistics and Applied Probability. Chapman and Hall/CRC Press (since 2005).
Series Co-Editor (one of four), Chapman and Hall/CRC Press Series in Environmental Statistics (since 2003).
Associate Editor, *Advances in Water Resources* , 2009-2015.
Associate Editor, *Statistical Science* , 2006-2008.
Associate Editor of Extremes, 1997-2007.
Joint Editor of the Statistical Science Series published by Oxford University Press, 1999-2002.
Joint Editor of the Royal Statistical Society Series published by Oxford University Press, 1991-1999.
Associate Editor of Biometrika, 1998-1999.
Associate Editor of the Journal of the American Statistical Association (Case Studies and Applications), 1996-1999.
Member of Editorial Board of the Applied Probability journals, 1990-1999.
Associate Editor of Technometrics, 1992-1994.
Joint Editor, Journal of the Royal Statistical Society, Series B, 1988-1992.
Associate Editor, Journal of the Royal Statistical Society, Series B, July 1986-December 1987.

OTHER PROFESSIONAL SERVICE

National Academies of Sciences, Engineering and Medicine. Provisional member of the Committee on Assessing Causality from a Multidisciplinary Evidence Base for National Ambient Air Quality Standards (as of June, 2021)
Member of Science Advisory Board, U.S. Environmental Protection Agency, 2017-2021. Currently a candidate for reappointment.
Member of Program Committee for the *International Meeting on Statistical Climatology,* Toulouse, France, June 2019.
Member of Program Committee for the conference *The Nexus of Climate Data, Insurance, and Adaptive Capacity,* Asheville, NC. November 8-9, 2018.
Member of Program Committee for the conference *Statistics for the Environment: Research, Practice and Policy,* Asheville, NC, October 11-13, 2018. Conference organized by the Section for Statistics and the Environment, American Statistical Association.
Organizer of SAMSI workshop on Climate Extremes, at SAMSI (Research Triangle Park, NC), May 16-17, 2018. www.samsi.info/clim
Organizer of SAMSI Climate Transition Workshop, at SAMSI (Research Triangle Park, NC), May 14-16, 2018. www.samsi.info/clim
Co-organizer of the meeting "Data Sciences for Climate and Environment" at the Aan Turing Institute, London, U.K., March 26, 2018 (this event was jointly sponsored by the Alan Turing Institute and SAMSI).
Co-organizer (with Michael Stein and Doug Nychka) of the STATMOS-SAMSI joint workshop on Climate Statistics, held at the National Center for Atmospheric Research, July 17-21, 2017.
Member of Program Committee for 9th international conference on Extreme Value Analysis, Ann Arbor, Michigan, June 15-June 19, 2015.
Member of Statistics Board of Reviewing Editors (SBORE), Science magazine, since 2014.
Chair of the Search Committee to find a new Scientific Director of CANSSI, the Canadian Statistical Sciences Institute, 2014.
Member of National Research Council panel on Societal Impacts of Climate and Social Stress: Implications for Security Analysis. The final report was published in 2013 (http://www.nap.edu/catalog.php?record_id=14682).
Chair of the Governing Board of CANSSI, the Canadian Statistical Sciences Institute, 2012-2016 (continuing as a regular Board member until June 2017).
Participant in "Climate Science Day" in 2011 and 2013; this is coordinated by AAAS in conjunction with a number of professional scientific societies, and consists of a day of visits to Capitol Hill offices to meet with members of Congress and Staff to talk about climate change - Smith attended as one of the ASA

representatives
Member of Research Committee, Health Effects Institute 2010-2015.
Member, ASA Committee on Climate Change Policy and Statistics, 2009-2012
Chair, Section on Risk Analysis, American Statistical Association (calendar year 2010)
Member of Program Leaders' Committee for SAMSI Program on Space-Time Analysis for Environmental Mapping, Epidemiology and Climate Change, 2009-2010.
Faculty Mentor, IMSM graduate student workshop, North Carolina State University, July 2009.
Local Scientific Coordinator of SAMSI Program on Risk Analysis, Extreme Events and Decision Theory, academic year 2007-2008.
Member of Mathematics Review Panel, Foundation for Science and Technology (Portugal), February 18-23, 2008 (responsible for visiting 11 research units in the Lisbon area, preparing reviews and making funding evaluations)
Co-organizer (with David Marker, Mary Christman and Doug Nychka) of the workshop "A Statistical Consensus on Climate Change", organized and sponsored by the American Statistical Association, October 2007.
Member of Product Development Committee for the Synthesis and Assessment Product 3.3 ("Weather and Climate Extremes in a Changing Climate"), for the U.S. Government Climate Change Science Program, 2006-2008.
Chair of General Topics Committee for the 56th Session of the International Statistical Institute, Lisbon, Portugal, August 22-29, 2007.
Invited participant, workshop on Health Effects of Ambient Ozone, University of Rochester Medical Center, Rochester, N.Y., June 2007.
Member of Local Development Committee, Statistical and Applied Mathematical Sciences Institute, North Carolina, (2005-2009).
Member of the Science & Technical Advisory Committee, Albemarle-Pamlico National Estuary Program (2004-2010)
Trustee of SPRUCE (a U.K.-based charity that organizes conferences and workshops in environmental statistics), 2002-2014. This activity has now been wound up following the death of Professor Vic Barnett who was the chairman and instigator of SPRUCE.
Member of National Research Council committee to review Synthesis and Assessment Product 1.1 ("Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences"), for the U.S. Government Climate Change Science Program, 2005.
Chair of Program Leaders Committee, SAMSI Program on Large-Scale Computer Models for Environmental Systems. Statistical and Applied Mathematical Sciences Institute, North Carolina, January-June 2003.
Co-organizer (with P. Embrechts, D. Goodman and W.J. Fitzgerald) of a three-week Newton Institute Program on "Managing Uncertainty: New Tools for Insurance, Economics and Finance", Cambridge University, July 23-August 10 2001.
Member of Advisory Board for the Geophysical Statistics Project, National Center for Atmospheric Research, 2000-2002.
Health Effects Institute, Member of Review Panel for Particulate Epidemiology Re-Analysis Project (1999-2000), and a Site Visit Team (2007).
Member of Environmental Statistics Committee for the International Statistical Institute, 1998-2005.
Co-Organiser and Visiting Fellow, Program on "Nonlinear and Nonstationary Signal Processing", Isaac Newton Institute for Mathematical Sciences, Cambridge, U.K., July-December 1998.
Chairman, Royal Statistical Society Research Section, 1995-96 session.
Member of Council, Institute of Mathematical Statistics (1995-1998).
Member of IMS Special Papers Committee 1989-1991 and 1996-1998 (chair 1998).
Member of Council, Institute of Mathematical Statistics (1995-1998).
Committee for Statistics in the Physical Sciences of the Bernoulli Society, 1989-present.
Member of Council of the Bernoulli Society, 1987-1991.
Member of European Regional Committee of the Bernoulli Society, 1988-90.
Co-organiser (with D.R. Cox and A.P. Dawid) of the Edinburgh Workshop on Asymptotic Statistics, July 1986.

RECENT DEPARTMENTAL SERVICE

PTR committees for Andrew Nobel (chair) and Chuanshu Ji (2020)
Member of STOR Diversity Liaison and VITAE Hiring Committee
Chair of search committee for assistant professor in applied statistics (2019-20)
Chair of full professor promotion committee for Shankar Bhamidi (2019)
Member of reappointment and promotion committee for Robin Cunningham (2018)
Member of reappointment committee for Nicolas Fraiman (2018)
Chair of post-tenure review (PTR) committee for Yufeng Liu (2018)
Member of promotion and tenure committee for Kai Zhang (2017)
Member of PTR committee for Steve Marron (2017)
Member of PTR committee for Vidyadhar Kulkarni (2015)
Member of promotion committee for Yin Xia (2015)
Chair of PTR committee for Ed Carlstein (2014)
Member of promotion committee for Serhan Ziya (2014)
Member of promotion committee for Haipeng Shen (2013)
Member of promotion committee for Jan Hannig (2012)

UNIVERSITY SERVICE

Member of the Phase II Committee for the proposed School of Data, Information and Society (Fall 2020)
Member of DHIT Advisory Committee (Fall 2020)
University Research Council, Divison of Physical Sciences and Mathematics, committee member or co-chair; Fall 2006 to Spring 2009.
Member of Fellowship Committee of the Graduate School and the Society of Fellows Faculty Committee, since Fall 2004.
Member of Science Advisers Committee established by Associate Dean Forest, 1998-2000.
University-appointed Trustee of NISS, 2001--2004.

PH.D. STUDENTS COMPLETED

Jonathan P. Cohen (Imperial College, Ph.D. obtained 1982)
Anthony C. Davison (Imperial College, Ph.D. 1985, joint advisor)
H.K. Sammy Yuen (Surrey University, Ph.D., 1988)
Jonathan A. Tawn (Surrey University, Ph.D., 1988)
Linda C. Wolstenholme (Surrey University, Ph.D., 1989, joint advisor)
Z.-Q. John Lu (North Carolina, Ph.D., 1994)
Seokhoon Yun (North Carolina, Ph.D., 1994)
Steven Garren (North Carolina, Ph.D., 1994)
Melissa G. Smith (North Carolina, Ph.D., 1996, joint advisor)
Amy M. Grady (North Carolina, Ph.D., 2000)
Dan Spitzner (North Carolina, Ph.D., 2001)
Zhengjun Zhang (North Carolina, Ph.D., 2002)
Petrutza Caragea (North Carolina, Ph.D., 2003)
Francisco Chamu Morales (North Carolina, Ph.D., 2005)
Stas Kolenikov (North Carolina, Ph.D., 2005)
Michele Trovero (North Carolina, Ph.D., 2007)
Jie Zhou (North Carolina, Ph.D., 2007)
Ping Bai (Co-advisor - principal advisor was Yuong Truong; North Carolina, Ph.D., 2007)
Elizabeth Shamseldin (North Carolina, Ph.D., 2008)
Evangelos Evangelou (joint advisor with Dr. Zhengyuan Zhu; North Carolina, Ph.D., 2009)
Xuanyao He (joint advisor with Dr. Zhengyuan Zhu; North Carolina, Ph.D., 2009)
Brian Lopes (North Carolina, Ph.D., 2011)

Soyoung Jeon (North Carolina, Ph.D., 2012)
Robert Erhardt (North Carolina, Ph.D., 2011)

CURRENT GRADUATE STUDENTS.

Sam Booth, Second-year PhD program
Dawn Sanderson, incoming graduate student starting in Fall 2021

CONFERENCE TALKS AND SCIENTIFIC PRESENTATIONS, 2009-2021.

Extreme Value Theory and Chess Ratings. Contributed talk at EVA 2021 (international virtual conference on Extreme Value Analysis, hosted by University of Edinburgh). To be presented on June 28, 2021.
Detection and Attribution for Spatial Extremes. Invited talk at the virtual workshop on Uncertainty Quantification in Climate Science, Jet Propulsion Laboratory Center for Climate Sciences, March 22-24, 2021.
Detection and Attribution for Spatial Extremes. Invited talk at the virtual workshop on *Confronting Climate Change*, Institute for Mathematical and Statistical Innovation, March 1-5, 2021.
Fair Qualifying Times across Age and Gender Categories for the Boston Marathon. Presented in a Topic Contributed Paper session, Joint Statistical Meetings, Philadelphia, August 1-6, 2020.
How do Typical Runners' Performances Vary With Age and Gender? Invited talk at the New England Symposium on Statistics In Sports (NESSIS), Harvard University, Cambridge, MA, Saturday, September 28.
Extreme event attribution: an important statistical problem for climate change. Invited talk at the Alastair Young 60th Birthday Conference, held at Washington University, St. Louis, August 16, 2019.
How do Typical Runners' Performances Vary With Age and Gender? Invited talk at Rocky Mountain Symposium on Analytics in Sports, Denver, CO, August 2, 2019.
How extreme was hurricane Harvey? Attribution and future projections. Invited talk at Workshop on Risk Analysis for Extremes in the Earth System, Lawrence Berkeley National Laboratory, Berkeley, CA, July 22-24 2019
Influence of Climate Change on Extreme Weather Events. Invited talk at the 11th Extreme Value Analysis (EVA) meeting, Zagreb, Croatia, July 1-5, 2019.
Detection and Attribution for Extreme Storms in the Gulf of Mexico Presented at 14th International Meeting on Statistical Climatology (IMSC), Toulouse, France, June 24-28, 2019.
Hurricane Harvey: Attributions and Future Projections of Damage. Invited talk at Annual Meeting of the American Association for the Advancement of Science (AAAS), Washington DC, February 2019; session on Extreme Event Attribution in the Context of Climate Change.
An Overview of Detection and Attribution for Climate Extremes. Presented at the conference *Statistics for the Environment: Research, Practice & Policy,* Asheville, NC, October 11-13, 2018.
Time Series Analysis of PM2.5 and Mortality in the Medicare Dataset. Presented at the Symposium on Causal Methods in Epidemiological Studies of Particulate Matter and Mortality, Chapel Hill, North Carolina, October 4, 2018.
Influence of climate change on extreme weather events. Invited presentation in Minisymposium on Statistics of Extreme Weather and Climate Events (which I also organized) as part of the SIAM Conference on Mathematics of Planet Earth (MPE18) September 13 - 15, 2018, Philadelpha, PA. (Talk not given; unable to travel to Philadelphia because of Hurricane Florence.)
Discussant in two sessions at the Joint Statistical Meetings in Vancouver, BC, Canada, July 29-August 2, 2018. (a) Session 52: "Intergovernmental Panel on Climate Change (IPCC) Reports: How Statisticians Can Get Involved;" (b) Session 661, "The Climate Extremes Program at SAMSI."
Influence of Climate Change on Extreme Weather Events. Contributed talk at the World Meeting of the International Society for Bayesian Analysis (ISBA) meeting in Edinburgh, Scotland, July 25-29, 2018. Organizer of the invited paper session, *Bayesian Methods for Detection and Attribution of Climate Change,* at the same meeting.
Risk of Extreme Weather Events in a Changing Climate. Invited talk at Bernard Harris Memorial Symposium: Risk in the 21st Century. Organized by the American Statistical Association Section on Risk

Analysis. North Carolina State University, Raleigh, NC, May 10-11, 2018.
The Influence of Climate Change on Extreme Weather Events. Buehler-Martin Plenary Speaker at the conference *Statistics and Data Science for Earth Systems*, organized by the Institute for Research in Statistics and Its Applications, University of Minnesota, May 3-5, 2018.
Panel Discussion on Reproducible Research. Annual Conference of the Health Effects Institute, Chicago, April 30, 2018
Attribution of extreme precipitation storms in the Gulf of Mexico. Annual meeting of the International Detection and Attribution Group (IDAG), Lawrence Berkeley National Lab, Berkeley, CA, March 13-15, 2018
Assessing Uncertainty in Climate Projections. Keynote Talk at the SECURE conference, University of Glasgow, Scotland, September 19, 2017.
Assessing Compliance with EPA Standards; An Appreciation of Larry Cox's Work as an EPA Scientist. Invited talk in the Larry Cox Memorial Session, Joint Statistical Meetings, July 30-August 3, 2017, Baltimore.
A Very Short Introduction to Extreme Value Theory. Presented as part of a Panel Discussion on Climate Extremes, Joint Statistical Meetings, July 30-August 3, 2018, Baltimore.
Panel discussion on "Uncertainty and Climate Change." TIES-GRASPA meeting in Bergamo, Italy, July 24-26, 2017.
Organizer and discussant in session on "Causal inference in air pollution epidemiology." Atlantic Causal Inference Conference 2017, Chapel Hill, N.C., April 23-25, 2017.
Bayesian Hierarchical Modeling framework for Detection and Attribution. International Detection and Attribution Group, Lawrence Berkeley National Laboratory, March 13-15, 2017.
Climate Extremes, Attributions and Future Projections. TIES conference (The International Environmetrics Society), Edinburgh, Scotland, July 18-22, 2016.
Climate Extremes, Attributions and Future Projections. International "RARE" Conference on Risk Analysis, Ruin theory and Extremes, Hotel Le Majestic, La Baule, France, July 3-8, 2016.
Bayesian Hierarchical Models for Extreme Event Attribution. Invited talk at the workshop on Uncertainty Modeling in the Analysis of Weather, Climate and Hydrological Extremes, Banff International Research Station, June 12-17, 2016.
Time Series Analysis of Ozone and Mortality in California, 1987-2012. Invited talk at the Environmental Vision Conference, Marriott Marquis Hotel, Washington DC, May 10-11, 2016.
Bayesian Hierarchical Models for Extreme Event Attribution. Invited talk at the meeting of the International Detection and Attribution Group, National Center for Atmospheric Research, Boulder, CO, February 1-3, 2016. Climate extremes: Attributions and future projections. Invited talk at the 60th World Statistics Conference of the International Statistical Institute, Rio de Janeiro, Brazil, July 26-31, 2015.
Climate extremes: Attributions and future projections. Invited talk at the Ninth Conference on Extreme Value Analysis, Ann Arbor, Michigan, June 19, 2015.
Statistics for Climate Science: Short Course and Workshop Lecture given at the VI-MSS Workshop on Environmental Statistics, Indian Statistical Institute, Kolkata, March 2-4, 2015, www.unc.edu/~rls/kolkata.html
Influence of climate change on extreme weather events. Invited talk at the Climate, Risk and Statistics Workshop, Department of Statistics, Columbia University, December 11 2014. Influence of climate change on extreme weather events. Plenary talk given at the International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC 2014), UNC Greensboro, October 11, 2014
Invited discussion, The SAMSI Program on Computational Methods in Social Sciences. Joint Statistical Meetings, Boston, MA, August 7, 2014
The Variation of Marathon Performances with Age: A Longitudinal Study. Invited speaker in session on After the 2013 Boston Marathon: Predicting Performances in Marathon Races and Other Athletic Events, Joint Statistical Meetings, Boston, MA, August 3, 2014
Influence of Climate Change on Extreme Weather Events. Second SIAM conference on Uncertainty Quantification, Savannah, GA, March 31, 2014.
Completing the Results of the 2013 Boston Marathon. Invited talk at the New England Symposium on Statistics in Sports, Boston, MA, September 21, 2013
Influence of Climate Change on Extreme Weather Events. Invited talk at Third Workshop on Understanding Climate Change from Data, Northwestern University, Evanston, IL, August 15-16, 2013
Invited discussion, The SAMSI Program on Massive Data Sets. Joint Statistical Meetings, Montreal,

Canada, August 8, 2013
A hierarchical statistical model for regression-based climate change detection and attribution. Invited speaker in session on Climate Change Detection and Attribution, Joint Statistical Meetings, Montreal, Canada, August 7, 2013
Invited speaker in Minisymposium onInference in Climate Studies, SIAM Annual Meeting, San Diego, CA, July 11, 2013
Influence of Climate Change on Extreme Weather Events. Invited talk, Annual Meeting of the Canadian Statistical Sciences Institute (CANSSI), Edmonton, Alberta, May 25 2013
Influence of Climate Change on Extreme Weather Events, Seminar in Department of Engineering and Public Policy, Carnegie Mellon University, April 15, 2013
Influence of Climate Change on Extreme Weather Events. Math Awareness talk at Department of Mathematical Sciences and Computer Science, Worcester Polytechnic Institute, Worcester, MA, April 9, 2013
Influence of Climate Change on Extreme Weather Events (Plenary Lecture) and Climate Statistics (Short Course), MECC 2013 - International Conference and Advanced School Planet Earth, Mathematics of Energy and Climate Change, Lisbon, Portugal, 26 and 28 March 2013
Climate Change and Human Mortality. Invited talk, ENAR Meeting, Orlando, FL, March 11, 2013
Attribution of Extreme Climatic Events. Wierman Lecture,Department of Applied Mathematics and Statistics, Johns Hopkins University, Baltimore, MD, December 6, 2012
Attribution of Extreme Climatic Events. Invited talk at the conference of the Environmental Statistics Section of ASA, Raleigh, NC, October 2012.
Invited discussion, The Uncertainty Quantification Program at SAMSI. Joint Statistical Meetings, San Diego, CA, July 29, 2012
Detection and Attribution of Extremes in Climate Events. Workshop on Frontiers in the Detection and Attribution of Climate Change, Banff International Research Station, May 27-June 1, 2012
Statistics of Climate Change. Plenary talk at Institute XXXIII Congreso Nacional de Estadistica e Investigacion Operativa, Madrid, Spain, April 17 2012
Radial Basis Functions for Multipollutant Analysis. Environmental Statistics Seminar, Harvard School of Public Health, December 9, 2011
Trends in Climatic Data. Invited talk at IMA Hot Topics Workshop on Instantaneous Frequencies and Trends for Nonstationary Nonlinear Data. Institute of Mathematics and its Applications, Minneapolis, September 7, 2011
Invited discussion, Analysis of Object Data at SAMSI. Joint Statistical Meetings, Miami Beach, FL, August 3, 2011
Addressing the Evidence for Anthropogenic Climate Change. Invited Panel Discussion, Joint Statistical Meetings, Miami Beach, FL, August 3, 2011
Extreme value theory and single-event attribution in climatology. Invited talk at the Seventh Conference on Extreme Value Analysis, Lyon, France, July 1, 2011
Attribution of Extreme Events using Observational Data and Climate Models. Workshop on Data Hierarchices for Climate Modeling, Institute for Pure and Applied Mathematics, UCLA, May 28 2011
Statistics for Air POllution Epidemiology: Alternative Models and Interpretations. Presented at health Effects Institute Annual Conference, Boston, May 1, 2011.
Responding to Challenges in Climate Science. Talk given to Triangle Area Research Directors Council (TARDC), February 22, 2011
Air Pollution and Health: An Ongoing Debate. Presented at Paul Switzer Retirement Symposium, Stanford University, October 22 2010
Extreme Value Theory and Single Event Attribution. Presented at WCRP-UNESCO (GEWEX/CLIVAR/IHP) Workshop on metrics and methodologies of estimation of extreme climate events. Paris, France, September 27-29, 2010
Spatial and temporal interpolation of environmental data (white paper written jointly with Noel Cressie). Workshop on Creating Surface Temperature Datasets to Meet 21st Century Challenges. At the UK Metorological Office, Exeter, U.K., September 7-9, 2010
Discussant of The Value of Multiproxy Reconstruction of Past Climate. Editor's invited paper session, JASA Applications and Case Studies, Joint Statistical Meetings, Vancouver, Canada, August 4, 2010
Discussion, Space-Time Analysis and SAMSI. Joint Statistical Meetings, Vancouver, Canada, August 3, 2010

Comparing climate models with observational data: Detection and attribution for climate means and climate extremes. Invited speaker (4 talks) at 41st Winter Conference on Statistics, University of Umea, March 7-11, 2010.
From theory to practice: A mathematical history of order statistics and their application to strength of materials, economics and climate change. Invited talk at workshop to honor Ishay Weissman, Technion, Haifa, Israel, December 7 2009.
An overview of etxreme value theory. Invited presentation at Workshop on Spatial Extremes; Bernoulli Centre, EPFL, Lausanne, Switzerland; November 9--13, 2009.
Invited participant in a panel discussion on Climate Change Policy. Joint Statistical Meetings, Washington D.C., August 2-6 2009.
Estimating the Probability of Climate Change. Organizer and speaker in invited session at European Meeting of Statisticians; Toulouse, France, July 20--24, 2009.
Extreme Precipitation Trends over the Continental United States. Invited presentation at Workshop on Spatial Extremes; Bernoulli Centre, EPFL, Lausanne, Switzerland; July 13--17, 2009.
Graybill conference/EVA VII at Colorado State (June 23-25). Organizer and Discussant of an invited paper session on Geostatistics and Climate.
Extreme Precipitation Trends over the Continental United States. Invited presentation at Workshop on Climate Change and Extreme Value Theory, EURANDOM and KNMI, The Netherlands, May 11, 2009
Extreme Precipitation Trends over the Continental United States. Invited presentation at Workshop on Effects of Climate Change: coastal systems, policy implications and the role of statistics. Sliema, Malta, March 19, 2009
Detection and Attribution for Precipitation Trends. Meeting of the International Detection and Attribution Group, Boulder, Colorado, January 21-23, 2009.
Extreme Value Theory. Invited presentation at the American Meteorological Society short course on Statistics of Extreme Events, Phoenix, January 9 2009.

RESEARCH FUNDING AT UNC

NSF Award DMS-1638521, "Statistical and Applied Mathematical Sciences Institute", $3,097,333 per year for three years, September 1, 2017 to August 31, 2020. (RLS was PI of the grant and Director of SAMSI through 1/1/2018; the new PI and Director is Dr. David Banks of Duke University.)
SAMSI supplementary award (2011), $314,308 to upport the Virtual Institute in Mathematical and Statistical Sciences (joint program with several institutes in India)
NSF Award DMS-1242957, "Collaborative Research: Advancing extreme value analysis of high impact climate and weather events". $110,725, July 1 , 2013 to June 30, 2018.
SAMSI supplementary award (2015), $181,430 to organize an Innovations Lab on Precision Medicine.
NSF Award DMS-1127914, "Statistical and Applied Mathematical Sciences Institute" (the main SAMSI grant; RLS was PI and Director of SAMSI), $3,505,120 per year for five years, September 1, 2012 to August 31, 2017.
SAMSI supplementary award (2011), $314,308 to upport the Virtual Institute in Mathematical and Statistical Sciences (joint program with several institutes in India)
NSF Award DMS-0605434, "Optimal Design of Experiments for Correlated Observations" (co-PI; PI was Dr. Zhengyuan Zhu). $218,961, 07/01/06 to 06/30/09.
American Petroleum Institute, "Reassessing the relationship between ozone and short-term mortality in US urban communities" (PI), $65,332, 07/01/06 to 12/31/06.
Environmental Protection Agency, "Effects of climate change of human health: current and future impacts" (one of several senior investigators; PI is Dr. Adel Hanna, Carolina Environmental Program). $599,103 from 07/01/05 to 06/30/08
North Carolina Urban Water Consortium, "Drought vulnerability in North Carolina: Low flow response to expected climate and land-use change" (co-PI; PI is Dr. Lawrence Band, UNC Department of Geography). $65,441 from 01/01/05 to 06/30/06
NOAA award, "Statistical Assessment of Uncertainty in Present and Future North American Climate Extremes" (PI; co-PI is Dr. Gabriele Hegerl, Duke University). $414,981, 02/01/05 to 01/31/09 (UNC portion is $256,734).
NIH/NIEHS, The environmental epidemiology of arrythomogenesis in WHI. One of numerous co-

investigators; PI is Dr. Eric Whitsel (UNC, Department of Epidemiology). $2,377,066, 09/08/03 to 05/31/08.
NSF Award DMS-0084375, "Spatial Modeling, Analysis and Prediction of Nonstationary Environmental Processes." (PI) $149,587, 2000-2004
NSF Award DMS-9971980, "Extreme Values, Time Series and Prediction" (PI). $65,000, 1999-2001.
EPA Cooperative Agreement CR-827737-01-0, "Statistical Issues in Particulate Matter Studies" (PI), $197,473, 1999-2001.
EPA Contract OD-5210-NAEX, "Estimating Spatial Trends in Airborne Concentrations and Total Deposition" (PI), $45,955, 1999-2000.
NSF Award DMS-9803794, "Workshops on Nonlinear and Nonstationary Signal Processing" (PI), $19,000, 1998-1999.
NSF Award DMS-9705166, "Significance Testing of Pattern Correspondence Statistics" (PI), $63,000, 1997-1999 (cost-free extension to July 2000).
NSF Award DMS-9205112, "Chaotic time series and environmental extremes" (PI). $72,500, 1992-1995.
NSF Award DMS-9115750 (PI; joint with Professor P.J. Robinson, Department of Geography), "Mathematical Sciences: Climatic thresholds and climate change", $97,185, 1991-1994.
NSF SCREMS Award (jointly with G. Simons, J.S. Marron, E. Carlstein and J. Fan), $80,000, 1990-2.

BOOKS

M.J. Crowder, A.C. Kimber, R.L Smith and T.J. Sweeting (1991), *Statistical Analysis of Reliability Data*. Chapman and Hall, London.
W.J. Fitzgerald, R.L. Smith, A.T. Walden and P.C. Young (editors) (2000), *Nonlinear and Nonstationary Signal Processing* . Cambridge University Press, Cambridge, U.K.
G.A. Young and R.L. Smith (2005), *Essentials of Statistics Inference* . Cambridge University Press, Cambridge, U.K.
A. Gelfand, M. Fuentes, J. Hoeting, and R.L. Smith (editors), *Handbook of Environmental and Ecological Statistics.* Chapman and Hall/CRC Handbooks of Modern Statistical Methods, publication due January, 2019.

PAPERS PUBLISHED OR ACCEPTED FOR PUBLICATION

(* denotes refereed paper or book chapter)

*B.W. Turnbull, H. Kaspi and R.L. Smith (1978), Adaptive sequential procedures for selecting the best of several normal populations. *J. Statist. Comput. Simul.* **7**, 133-150.
*R.L. Smith (1980), A probability model for fibrous composites with local load sharing. *Proc. R. Soc. Lond. A* **372**, 539-553.
*R.L. Smith and S.L. Phoenix (1981), Asymptotic distributions for the failure of fibrous materials under series-parallel structure and equal load sharing. *J. Appl. Mechanics* **103**, 75-82.
*R.L. Smith (1982), The asymptotic distribution of the strength of a series-parallel system with equal load-sharing. *Ann. Probab.* **10**, 137-171.
*R.L. Smith (1982), Uniform rates of convergence in extreme value theory. *Adv. Appl. Prob.* **14**, 600-622.
*I. Gerontidis and R.L. Smith (1982), Monte Carlo generation of order statistics from general distributions. *Appl. Statist.* **31**, 238-243.
*R.L. Smith (1982), A note on a probability model for fibrous composites. *Proc. R. Soc Lond. A.* **382**, 179-182.
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