

**JOSE D. SALAS, M.S., Ph.D.**

**Professor Emeritus of Civil and Environmental Engineering**  
**Colorado State University, Fort Collins, Colorado 80523-1372 U.S.A.**  
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**EDUCATION**

B.S. & C.E. National University of Engineering (UNI), Lima, Perú (1961 - 1965)  
Major: Civil Engineering/Hydraulic Engineering  
M.S. Colorado State University, Fort Collins, Colorado (1966 - 1967)  
Major: Hydraulics  
Ph.D. Colorado State University, Fort Collins, Colorado (1969 - 1972)  
Major: Hydrology and Water Resources Engineering

**PROFESSIONAL CAREER**

Jan. 1964 - Dec. 1965: Research Assistant, National Hydraulics Laboratory, Lima, Perú.  
Jan. 1966 - Aug. 1966: Research Engineer, National Hydraulics Laboratory, Lima, Perú.  
Sep. 1966 - Dec. 1967: M.S. Studies at Colorado State University.  
Jan. 1968 - Aug. 1969: Research Engineer, National Hydraulics Laboratory, Lima, Perú.  
Oct. 1969 - May 1972: Research Assistant, Hydrology & Water Resources, Colorado State Univ.  
June 1972 - Aug. 1972: Research Associate, Hydrology & Water Resources, Colorado State Univ.  
Sep. 1972 - Apr. 1973: Visiting Assistant Professor of Civil Engineering, University of Pittsburgh.  
May 1973 - July 1973: Research Associate, Hydrology & Water Resources, Colorado State Univ.  
Aug. 1973 - Nov. 1975: Research Engineer, Divisions of System Analysis and Hydrologic Studies, General Office of Irrigation, Ministry of Agriculture, Lima, Perú.  
Feb. 1976 - Sep. 1976: Visiting Associate Professor, Interamerican Center of Water and Land Development (CIDIAT), Merida, Venezuela.  
Oct. 1976 - June 1984: Associate Professor of Civil Engineering, Colorado State University.  
July 1984 - Dec. 2011: Professor of Civil Engineering, Colorado State University.  
Jan. 1985 - June 1985: Visiting Contract Professor, Istituto di Idraulica, University of Genova, Italy.  
Aug. 1985 - Dec. 1986: Visiting Professor, Department of Civil Engineering, Polytechnical University of Valencia, Spain.  
Jan. 1992 - July 1992: Visiting Contract Professor, Dept. of Hydraulics, Politecnico di Milano, Italy.  
June 1994: Visiting Contract Professor, Dept. of Hydraulics, University of Catania, Italy.  
Nov. 1995 - May 1998: Invited Professor, Canadian National Institute of Scientific Research, Quebec.  
Jan. 1986 - 1998: Program Coordinator, Hydrologic Science and Engineering Program, Department of Civil Engineering, Colorado State University.  
Sept. 2001 - Dec. 2005: Division Leader, Water Resources, Hydrologic & Environmental Sciences Division, Department of Civil Engineering, Colorado State University.  
Jan. 2003 - July 2003: Visiting Professor, Institute of Hydromechanics and Water Resources Management, ETH, Zurich, Switzerland.  
Jan. 2003 - Dec. 2006: Borland Professor of Hydrology & Water Resources, Colorado State Univ.  
Jan. 2012 - Present: Professor Emeritus, Colorado State University.

**AREAS OF INTEREST AND EXPERIENCE**

Areas of interest and activity of Dr. Salas include: flood prediction and forecasting, drought analysis and management, stochastic modeling and simulation of hydrological processes, prediction of short term rainfall, water supply forecasting, operation and safety studies of reservoir systems, modeling of watershed and river basins, sampling and spatial analysis of hydrologic and environmental processes, uncertainty analysis of reservoir sedimentation, quantification of risk and uncertainty of hydrologic events, and risk analysis and modeling of extreme hydrologic events under non-stationary conditions. Dr. Salas has been consultant of national and international organizations. He has worked in several countries sponsored and funded by organizations such as UNESCO, FAO, AID, IICA, OAS, and the World Bank.

## **HONORS AND AWARDS**

- 1974: First prize (\$1,000) for best technical work at the Ministry of Agriculture, Lima, Perú.
- 1984: Colorado State University, Engineering Faculty Award (\$2,500.00).
- 1996: **1996 Arid Lands Hydraulic Engineering Award, American Society of Civil Engineers ASCE (May 1996)**
- 1998: Abell Faculty Research and Graduate Program Support Award from Colorado State University, College of Engineering.
- 2003-2005: Borland Professor of Hydrology and Water Resources, Colorado State University.
- 2003: **2003 CSU/AGU Hydrology Days Award, Fort Collins, Colorado.**
- 2004: Research Award, Department of Civil Engineering, Colorado State University.
- 2005: Antorcha de Habich Award, 150<sup>th</sup> Anniversary, National University of Engineering, Lima, Peru.
- 2008: Member of the Academy of Engineering of Mexico (foreign corresponding member)
- 2009: Conservation Service Award, U.S. Department of the Interior (for research work on the Colorado River Hydrology).
- 2010: **2010 Ven Te Chow Award, ASCE/EWRI Environmental Water Resources Institute (May 2010).**
- 2010: Member of the Academy of Engineering of Peru (foreign corresponding member)
- 2010: Honorary Professor, National Agrarian University La Molina, Peru
- 2011: Doctor Honoris Causa, National University of Engineering, Lima, Peru.
- 2013: 2013 Enrico Marchi Lecture, May 31<sup>st</sup>, Milan, Italy

## **CONTRACTS, GRANTS AND CONSULTING ACTIVITIES**

Dr. Salas has been principal investigator of a number of research projects related to: flood prediction, drought prediction, stochastic modeling and generation of hydrologic processes, water supply forecasting, prediction of short term rainfall, impacts of climatic changes on agriculture, modeling of streamflow in arid regions, modeling and simulation of the Nile River System, stochastic analysis of the Colorado River system, modeling of the Truckee River system, modeling of the Great Lakes River system, and operation and safety studies of reservoir systems. These projects have been funded by national and international organizations such as the U.S. National Science Foundation, U.S. Geological Survey, U.S. Bureau of Reclamation, Colorado Agricultural Experiment Station, NOAA, U.S. Department of Agriculture, and the World Bank. Additionally, Dr. Salas' research includes developing mathematical models for predicting the gradual breach of earth dams, the conceptual (physically based) modeling of watershed processes, determining the uncertainty of reservoir sedimentation, quantifying the uncertainty of sediment loads, and risk analysis of extreme events under non-stationary conditions. Dr. Salas has been consultant of several organizations such as the U.S. National Science Foundation, Northwest Hydraulics Consultants, Inc., Seattle, Washington; Resource Consultants Inc. and RTI, Fort Collins, Colorado (CO); W.W. Wheeler and Associates, Englewood, CO; Wright Water Engineers, Denver, CO; MWH, Denver, CO; West Coast Regional Water Supply Authority, Florida; and AYRES Associates, CO. Likewise, Dr. Salas has been involved in research, teaching, and consulting activities for a number of international organizations such as UNESCO, AID, FAO, HydroQuebec (Montreal, Canada), ACRES International Ltd.(Niagara Falls, Canada), IICA, CIDIAT, the World Institute for Disaster Management, Inc., Conalvias and AMB (Bucaramanga, Colombia), Nippon Koei Co. (Peru), and the World Bank. International work experience involves several countries such as Argentina, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, Egypt, Guatemala, India, Italy, Peru, Philippines, Portugal, Spain, Uruguay, and Venezuela.

## **SPECIAL PROFESSIONAL ACTIVITIES**

- Oct.1984: NSF Review Panel for Young Presidential Awards, Washington, DC.
- Dec.14-18, 1987: Invited U.S. Representative for the NSF Flood Hazard Workshop, U.S.-Asia Conference on Engineering for Mitigating Natural Hazards Damage, Bangkok, Thailand.
- Sept.16-28, 1989: Co-Director of the NATO Advanced Study Institute on "Stochastic Hydrology and its Use in Water Resources Systems Simulation and Optimization," Peñíscola, Spain.
- April 24-26, 1991: NSF Panel Review for Site Visit to Center for Tropical Research, San Juan, P. Rico.
- Oct.91-Jul.92: HydroQuebec Expert Panel, Montreal, Canada.
- June 25, 1992: Keynote Speaker on "Time and Space Aggregation of Streamflow Processes" at the International Workshop on Advances in Distributed Hydrology, Bergamo, Italy.
- Jan.1995: NSF Panel Review for Young Presidential Awards, Washington DC.
- Nov. 1995: U.S. Director of the NSF "U.S.-Italy Research Workshop on the Hydrometeorology, Impacts and Management of Extreme Floods", Perugia, Italy.
- 1987-1995: Associate Editor, Journal of Hydraulic Engineering of ASCE.
- Jan.20, 1995: Panel Member on "Special Topics in Probability and Statistics for Hydrometeorology", 75<sup>th</sup> Anniversary of the American Meteorological Society, Conference on Hydrology, Dallas, Texas.
- 1995-2005: Member of the Editorial Board of the Journal of Hydrologic Engineering of ASCE.
- April 13-18, 1996: World Bank Expert Panel, SEDAPAL, Peru.
- June 7-9, 1996: Invited U.S. Representative to the UNESCO Workshop on the Use of Multimedia in Hydrology and Water Resources, Polytechnical University of Catalunya, Barcelona, Spain.
- Nov.28, 1996: Keynote Speaker on "Hydrology of Arid and Semiarid Regions", II International Conference on Mediterranean Hydrology, Valencia, Spain.
- May 15, 1997: Keynote Conference on "Risk and Uncertainty in Water Resources", II Latinamerican Conference on Environmental Risk, Valencia, Venezuela.
- Nov. 5, 1997: Keynote Conference on "Civil Engineering: A World of Risks and Uncertainties", XI National Congress of Civil Engineering, Trujillo, Peru.
- Nov. 5, 1998: Keynote Speaker on "Risk and Uncertainty Management of Extreme Hydrologic Events", V Annual Meeting on Watershed Management, Tacna, Peru.
- May 25, 2000: Keynote Speaker on "Large Scale Climatic Variability and Global Hydrology", Korean Water Resources Association, Seoul, Korea.
- July 18, 2000: Keynote Speaker on "Drought Analysis and Mitigation" WARREDOC, Perugia, Italy.
- 2001-present: Member of the Organizing Committee and Member of the Awards Committee of CSU/AGU Hydrology Days
- October, 2002: World Bank Expert Panel, SEDAPAL, Peru.
- June 23, 2004: Keynote Speaker on "Estimation of Low Flows and Droughts: Concepts and Applications", National University of Colombia, Medellin, Colombia.
- Nov. 24, 2004: Keynote Speaker on "Oceanic-Atmospheric Variability and its Relation to Extreme Events", International Seminar on New Perspectives of Scientific Research and Technology for Disaster Prevention and Assistance, INDECI, Lima, Peru.
- Nov. 4, 2005: Keynote Speaker on "Advances in the Estimation of the Severity of Droughts", 40<sup>th</sup> Anniversary of CIDIAT, Merida, Venezuela.

- June 1, 2007: Keynote Conference on “Advances in Characterizing Extreme Droughts”, HYDRO II, Lima, Peru.
- Nov. 20, 2007: Keynote Conference on “Characterizing the Dynamics of Droughts Based on Stochastic Methods”, HRSD UNESCO International Conference on “Hydrology and Water Management for Hazard Reduction and Sustainable Development”, Manila, Philippines.
- Jan.2008-present: Associate Editor of the Journal of Hydrology, Elsevier, Europe.
- Mar.21, 2009: Keynote Speaker on “Long-Range Forecasting of Streamflows”, I Congress of Water, National Agrarian University, Lima Peru.
- April 14, 2009: Keynote Speaker on “Climate Variability and Change in Water Resources”, International Congress on Water, Environment, and Health: the Challenges of the Climate Change, Puebla, Mexico.
- October 2009: Invited by Xerochore, 7<sup>th</sup> Framework Program (Europe), Workshop on Socio-Economic & Environmental Impacts of Droughts, Venice, Italy.
- May 20 2010: 2010 Ven Te Chow Lecture on “Stochastic hydrology in the Framework of Climate Variability and Change”, delivered at the ASCE/EWRI World Environmental & Water Resources Congress, Providence, Rhode Island, USA.
- May 25, 2010: Invited Lecture on “Hydrologic Variability and Change: The Role of Stochastic Hydrology”, at International Workshop on Advances in Statistical Hydrology, Taormina, Italy, International Association of Hydrologic Science.
- July 2010: Keynote Speaker on “Stochastic Simulation and Forecasting in the Framework of Climate Variability and Change”, 10<sup>th</sup> International Symposium on Stochastic Hydraulics, Water 2010, Quebec City, Canada.
- December 2010: Invited Seminar at World Bank, Water Experts Meeting to discuss on Climate Variability and Change in Hydrology and Water Resources, Washington D.C.
- December 2011: Keynote Speaker on “Estimating the Uncertainty of Extreme Hydrologic Events”, 2<sup>nd</sup> International Seminar on “Typhoon and Flood Defense Strategies”, Seoul, Korea.
- May 31<sup>st</sup> 2013: 2013 Enrico Marchi Lecture, “Quantifying Hydrologic Risk in a Changing World”, Milan, Italy

## **SELECTED PUBLICATIONS (complete list is available)**

Jose D. Salas has authored one book, chapters of several books and handbooks, and published over 250 scientific and technical publications, manuals, and consulting reports. A sample of his publications is listed below.

### **Books and Chapters of Books**

1. Salas, J. D., Delleur, J. W., Yevjevich, V. and Lane, W. L., 1980, Applied Modeling of Hydrologic Time Series, Water Resources Publications, Littleton, Colorado, 484 p. (2nd Printing 1985, 3rd Printing, 1988)
2. Salas, J.D., 1993, Analysis and Modeling of Hydrologic Time Series, Chapter 19 (72 p.) in The McGraw Hill Handbook of Hydrology, D.R. Maidment, Editor.
3. Salas, J.D., Markus, M., and Tokar, A.S., 2000, Streamflow Forecasting Based on Artificial Neural Networks, Chapter 4 in Artificial Neural Networks in Hydrology, p. 23-51, G. Rao and A.R. Rao, Editors, Kluwer Academic Publishers, London.
4. Shin, H.S. and Salas, J.D., 2000, Spatial Analysis of Hydrologic and Environmental Data Based on Artificial Neural Networks, Chapter 13 in Artificial Neural Networks in Hydrology, p. 259-286, G. Rao and A.R. Rao, Editors, Kluwer Academic Publishers, London.
5. Salas, J.D., Lane, W. and Frevert, D.K., 2002, Stochastic Analysis, Modeling and Simulation (SAMS

- 2000)", chapter 21 in *Mathematical Models of Small Watershed Hydrology and Applications* (V.P. Singh and D.K. Frevert, editors), Water Resources Publications, Littleton, Colorado, p. 749-831.
6. Salas, J.D. and Pielke, Sr. R.A., 2003, "Stochastic Characteristics and Modeling of Hydroclimatic Processes", chapter 32 in *Handbook of Weather, Climate, and Water*, (edited by T.D. Potter and B. Colman), John Wiley & Sons, p. 587-605.
  7. Salas, J.D., Ramírez, J.A., Burlando, P., and Pielke Sr., R.A., 2003, "Stochastic Simulation of Precipitation and Streamflow Processes", chapter 33 in *Handbook of Weather, Climate, and Water*, (edited by T.D. Potter and B. Colman), John Wiley & Sons, 607-640.
  8. Valdés, J.B., Burlando, P., and Salas, J.D., 2003, "Stochastic Forecasting of Precipitation and Streamflow Processes", chapter 34 in *Handbook of Weather, Climate, and Water*, (edited by T.D. Potter and B. Colman), John Wiley & Sons, 641-665.
  9. J.D. Salas, J.D., Tarawneh, Z., J.A. Raynal, T.S. Lee, D. Frevert, and T. Fulp, 2008, "Extending Short Records of Hydrologic Data", Chapter 20 in *Hydrology and Hydraulics*, Singh, V.P., editor, 1050 pp, Water Resources Publications, Highlands Ranch, Colorado, 2008.
  10. Rajagopalan, B., Salas, J.D., and Lall, U., 2010, "Stochastic Methods for Modeling Precipitation and Streamflow", chapter 2, in *Advances in Data-Based Approaches for Hydrologic Modeling and Forecasting*, R. Berndtsson and B. Sivakumar, Editors, World Scientific.
  11. Salas, J.D., Govindaraju, R., Anderson, M., Arabi, M., Frances, F., Suarez, W., Lavado, W., and Green, T.R., 2014. "Introduction to Hydrology", in *Modern Water Resources Engineering*, L.K. Wang and C.T. Wang Editors, *Handbook of Environmental Engineering Series*, Vol. 15, published by Humana Press-Springer Science, NYC, USA.
  12. Salas, J.D., Gavilan, G., Salas, F.R., Julien, P., and Abdullah, J., 2014. "Uncertainty of the PMP and PMF", Chapter 28, *Handbook of Engineering Hydrology*, Vol.2, Modeling, Climate Changes and Variability (S. Eslamian, Ed.), Taylor & Francis, CRC Press.
  13. Salas, J.D., Kroll, C., Cancelliere, A., Fernandez, B., Raynal, J., and Lee, D., 2014. "Low Flows and Droughts", chapter of a forthcoming Monograph, ASCE.

### **Refereed Journal Papers**

1. Boes, D.C. and Salas, J.D., 1973, "On the Expected Range and Expected Adjusted Range of Partial Sums of Exchangeable Random Variables," Jour. Appl. Probability, Vol. 10, p. 671-677.
2. Salas, J.D. and Boes, D.C., 1974, "Expected Range and Adjusted Range of Hydrologic Sequences," Water Resour. Res., 10(3), 457-463.
3. Salas, J.D., 1974, "Range of Cumulative Sums, I. Exact and Approximate Expected Values," J. Hydrol., 23, 39-66.
4. Salas, J.D., 1974, "Range of Cumulative Sums, II. Application to Storage Capacity of Reservoirs," J. Hydrol., 23, 329-339.
5. Boes, D.C. and Salas, J.D., 1978, "Nonstationarity in the Mean and the Hurst Phenomenon," Water Resour. Res., 14(1), 135-143.
6. Salas, J.D., Troutman, B.M., and Boes, D.C., 1979, "Comment on 'The Small Samples Estimation of h', 'The Small Sample Expectation of Population and Adjusted Ranges', and 'The Small Sample Expectation of Rescaled Population and Rescaled Adjusted Ranges' by Z. Sen," Water Resour. Res., 15(3):967-970.
7. Salas, J.D., Boes, D.C., Pegram, G.G.S., and Yevjevich, V., 1979, "The Hurst Phenomenon as a Preasymptotic Behavior," J. Hydrol., 44:1-15, August.
8. Salas, J.D. and Boes, D.C., 1980, "Shifting Level Modeling of Hydrologic Series," Jour. Adv. in Water Resour., 3:59-63, June.
9. Salas, J.D. and Smith, R.A., 1981, "Physical Basis of Stochastic Models of Annual Flows," Water Resour. Res., 17(2):428-430.
10. Salas, J.D., Obeysekera, J. and Smith, R.A., 1981, "Identification of Streamflow Stochastic Models," ASCE J. Hydr. Div., HY7:853-866, July.

11. Salas, J.D., Boes, D.C. and Smith, R.A., 1982, "Estimation of ARMA Models with Seasonal Parameters," Water Resour. Res., 18(4):1006-1010.
12. Salas, J.D. and Obeysekera, J., 1982, "ARMA Model Identification of Geophysical Time Series," Water Resour. Res., 18(4):1011-1021.
13. Vecchia, A., Obeysekera, J., Salas, J.D. and Boes, D., 1983, "Aggregation and Estimation for Low-Order Periodic ARMA Models," Water Resour. Res., 19(5):1297-1306.
14. Xuen, J., Jing, D., Shen, H. and Salas, J.D., 1984, "Plotting Positions for Pearson Type-III Distribution," J. Hydrol., 74, 1-29.
15. Tabios, G. and Salas, J.D., 1985, "A Comparative Analysis of Techniques for Spatial Interpolation of Precipitation," Water Resour. Bull., 21(3): 365-380.
16. Salas, J.D., Tabios, G. and Bartolini, P., 1985, "Approaches to Multivariate Modeling of Water Resources Time Series," Water Resour. Bull., 21(4):683-708.
17. Fernandez, B. and Salas, J.D., 1986, "Periodic Gamma Autoregressive Processes for Operational Hydrology," Water Resour. Res., 22(10):1385-1396.
18. Raynal, J.A. and Salas, J.D., 1986, "Estimation Procedures for the Type I Extreme Value Distribution," J. Hydrol., 87:315-336.
19. Obeysekera, J. and Salas, J.D., 1986, "Modeling of Aggregated Hydrologic Time Series," J. Hydrol., 86:197-219.
20. Obeysekera, J., Tabios, G. and Salas, J.D., 1987, "On Parameter Estimation of Temporal Rainfall Models," Water Resour. Res., 23(10):1837-1850.
21. Bartolini, P., Salas, J.D. and Obeysekera, J., 1988, "Multivariate Periodic ARMA(1,1) Processes," Water Resour. Res., 24(8):1237- 1246.
22. Haltiner, J.P. and Salas, J.D., 1988, "Short-Term Forecasting of Snowmelt Runoff Using ARMAX Models," Water Resour. Bull., 24(5):1083-1089.
23. Haltiner, J.P. and Salas, J.D., 1988, "Development and Testing of a Multivariate Seasonal ARMA(1,1) Model," J. Hydrol., 104:247-272.
24. Boes, D.C., Heo, J. and Salas, J.D., 1989, "Regional Flood Quantile Estimation for a Weibull Model," Water Resour. Res., 25(5): 979-990.
25. Frick, D.M., Bode, D. and Salas, J.D., 1990, "Effects of Droughts on Urban Water Supplies Part I. Drought Analysis," ASCE J. Hydr. Eng., 116(6):733-753.
26. Frick, D.M., Bode, D. and Salas, J.D., 1990, "Effects of Droughts on Urban Water Supplies Part II. Water Supply Analysis," ASCE J. Hydr. Eng., 16(6):754-764.
27. Fernandez, B. and Salas, J.D. 1990, "Gamma-Autoregressive Models for Streamflow Simulation," ASCE J. Hydr. Eng., 116(11): 1403-1414.
28. Gates, T.K., Heyder, W.E., Fontane, D. and Salas, J.D., 1991, "Multicriterion Strategic Planning for Improved Irrigation Delivery, I: Theory," ASCE J. Irrig. & Drain. Eng., 117(6): 900-933.
29. Heyder, W.E., Gates, T.K., Fontane, D. and Salas, J.D., 1991, "Multicriterion Strategic Planning for Improved Irrigation Delivery, II: Application," ASCE J. Irrig. and Drain. Eng., 117(6): 914-934.
30. Santos, E. and Salas, J.D., 1992, "Stepwise Disaggregation Scheme for Synthetic Hydrology," ASCE J. Hydr. Eng., 118(5): 765-784.
31. Salas, J.D. and Obeysekera, J., 1992, "Conceptual Basis of Seasonal Streamflow Time Series Models," ASCE J. Hydraulic Eng., 118(8): 1186-1194.
32. Salas, J.D. and Abdelmohsen, M., 1993, "Initialization for Generating Single Site and Multisite Low Order PARMA Processes," Water Resour. Res., 29(6): 1771-1776.
33. Burlando, P., Rosso, R., Cadavid, L. and Salas, J.D., 1993, "Forecasting of Short-Term Rainfall using ARMA Models," J. Hydrol., 144: 193-211.
34. Bartolini, P. and Salas, J.D., 1993, "Modeling of Streamflow Processes at Different Time Scales", Water Resour. Res., 29(8): 2573-2588.

35. Frances, F., Salas, J.D. and Boes, D.C., 1994, "Flood Frequency Analysis with Systematic and Historical or, Paleoflood Data Based on the Two-Parameter General Extreme Value Models", Water Resour. Res., 30(6): 1653-1664.
36. Chebaane, M., Salas J.D., and Boes D.C., 1995, "Product Periodic Autoregressive Processes for Modeling Intermittent Monthly Streamflows", Water Resour. Res., 31(6):1513-1518.
37. Heo, J.H. and Salas, J.D., 1995, "Estimation of Quantiles and Confidence Intervals for the Log-Gumbel Distribution", Jour. of Stochastic Hydrology and Hydraulics, 10(3):187-207.
38. Rasmussen, P.F., Salas, J.D., Fagherazzi, L., Rassam, J.C., and Bobee, B., 1996, "Estimation and Validation of Contemporaneous PARMA Models for Streamflow Simulation", Water Resour. Res., 32(10):3151-3160.
39. Ahn, H. and Salas, J.D., 1997, "Groundwater Head Sampling Based on Stochastic Analysis", Water Resour. Res., 33(12), 2769-2780.
40. Ribeiro, J., Lauzon, N., Rousselle, J., Trung, H.T., and Salas, J.D., 1998, "Comparaison de Deux Modeles pour la Prevision Journaliere en Temps Reel des Apports Naturels", Canadian Journal of Civil Engineering, Vol.25(2), 291-304.
41. Kim, H.S., Eykholt, R. and Salas, J.D., 1998, "Delay Time Window and Plateau Onset of the Correlation Dimension for Small Data Sets", Physica Review E, 58(5), 5676-5682.
42. Salas, J.D. and Shin, H.S., 1999, "Uncertainty Analysis of Reservoir Sedimentation", ASCE J. Hydraulic Engineering, 125(4), 339-350, April.
43. Fernandez, B. and Salas, J.D., 1999, "Return Period and Risk of Hydrologic Events: 1. Mathematical Formulation", ASCE J. of Hydrologic Engineering, 4(4), 297-307, October.
44. Fernandez, B. and Salas, J.D., 1999, "Return Period and Risk of Hydrologic Events: 2. Applications", ASCE J. of Hydrologic Engineering, 4(4), 308-316, October.
45. Kim, H.S., Eykholt, R. and Salas, J.D., 1999, "Nonlinear Dynamics, Delay Times, and Embedding Windows", Physica D Nonlinear Phenomena, Physica D127, 48-60.
46. Shin H.S. and Salas, J.D., 2000, "Regional Drought Analysis Based on Neural Networks", ASCE Journal of Hydrologic Engineering, 5(2), 145-155, April.
47. ASCE Task Committee on Application of Artificial Neural Networks in Hydrology (R.S. Govindaraju, Chair), 2000, "Artificial Neural Networks in Hydrology. I: Preliminary Concepts", ASCE Journal of Hydrologic Engineering, 5, 115-123, April.
48. ASCE Task Committee on Application of Artificial Neural Networks in Hydrology (R.S. Govindaraju, Chair), 2000, "Artificial Neural Networks in Hydrology. I: Hydrologic Applications", ASCE Journal of Hydrologic Engineering, 5, 124-1137, April.
49. Chung, C.H. and Salas, J.D., 2000, "Return Period and Risk of Droughts for Dependent Hydrologic Processes", ASCE Journal of Hydrologic Engineering, 5(3), 259-268, July.
50. Salas, J.D., Chung, C.H., and Fernandez, B., 2001, "Relating Autocorrelations and Crossing Rates of Continuous and Discrete Valued Hydrologic Processes", ASCE Jour. Hydrologic Engineering, 6(2), 109-118.
51. Fernandez, B. and Salas, J.D., 2001, Closure of Discussion on "Return Period and Risk of Hydrologic Events: I Mathematical Formulation" by M. Bayazit, ASCE Jour. Hydrologic Engineering, 6, 358-363.
52. Heo, J.H., Boes, D.C., and Salas J.D., 2001, "Regional Flood Frequency Analysis Based on a Weibull Model, 1. Estimation and Asymptotic Variances", Journal of Hydrology, 242(2001), 157-170.
53. Heo, J.H., Salas J.D., and Boes, D.C., 2001, "Regional Flood Frequency Analysis Based on a Weibull Model, 2. Simulations and Applications", Journal of Hydrology, 242(2001), 171-182.
54. Heo, J.H., Kim, K.D. and Salas, J.D., 2001, "Estimation of Confidence Intervals of Quantiles for the Weibull Distribution", Jour. of Stoch. Environmental Research and Risk Assessment, 15(4), 284-309.
55. Sveinsson, O., Boes, D.C., and Salas J.D., 2001, "Population Index Flood Method for Regional Frequency Analysis", Water Resources Research, 37(11), 2733-2748.
56. Lee, D.R. and Salas, J.D., 2001, "Relationship Between ENSO and Droughts in Korea and the Continental U.S.", Water Engineering Research, KWRA, 2(2), 139-148.

57. Sveinsson, O.G., Salas, J.D., and Boes, D.C., 2002, "Regional Frequency Analysis of Extreme Precipitation in Northeastern Colorado and the Fort Collins Flood of 1997", ASCE Jour. Hydrologic Engr., 7(1), 49-63.
58. Sveinsson, O., Salas, J.D., Boes, D.C., and Pielke Sr., R.A., 2003. "Modeling the Dynamics of Long Term Variability of Hydroclimatic Processes", Journal of Hydrometeorology, AMS, 4, 489-496, June.
59. Sveinsson, O., Salas, J.D., and Boes, D.C., 2003, "Uncertainty of Quantile Estimators Using the Population Index Flood Method", Water Resources Research, 39(8).
60. Eldaw, A., Salas, J.D., and Garcia, L., 2003, "Long Range Forecasting of the Nile River Flows Using Climatic Forcing", Journal of Applied Meteorology, AMS. 42, 890-904.
61. England, J.F., Jarrett, R.D., and Salas, J.D., 2003, "Data-based comparison of moment estimators using historical and paleoflood data", Journal of Hydrology, 278 (1-4), 172-196.
62. England, J.F., Salas, J.D., and Jarrett, R.D., 2003, "Comparison of Two Moments-Based Estimators that Utilize Historical and Paleoflood Data for the Log-Pearson III Distribution", Water Resources Research, 39(9), SWC-5.1-5.16.
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