

## Curriculum Vitae

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**September 30, 2009**

**Name:** IGNACIO RODRÍGUEZ-ITURBE

**Date of Birth:** March 8, 1942

**Title:** James S. McDonnell Distinguished University Professor  
and Professor of Civil and Environmental Engineering,  
Princeton University

**Degrees:**  
C.E. Universidad del Zulia, 1963  
M.S., California Institute of Technology, 1965  
Ph.D., Colorado State University, 1967

### **Academic and Professional Interests**

Analysis, synthesis and sampling of hydrologic processes.  
Hydrogeomorphology, Hydroclimatology, Ecohydrology.

### **Academic Positions**

Associate Professor, Civil Engineering Department, Universidad del Zulia,  
October 1967-October 1969.

Associate Researcher, Instituto Venezolano de Investigaciones Científicas  
(IVIC), Caracas, October 1969 - August 1971.

Associate Professor, Civil Engineering Department, Massachusetts Institute  
of Technology, September 1971 - October 1973.

Associate Head, Water Resources Division, Civil Engineering Department,  
Massachusetts Institute of Technology, October 1973 - June 1975.

Professor of Engineering, Universidad Simón Bolívar, Caracas, June 1975 -  
July 1995.

Head, Graduate Program in Hydrology and Water Resources, Universidad  
Simón Bolívar, June 1975 - August 1977.

Dean of Research, Universidad Simón Bolívar, June 1975 - May 1979.

Dean of Graduate Studies, Universidad Simón Bolívar, Caracas, September  
1980 - May 1981.

Professor, Instituto Internacional de Estudios Avanzados (IDEA), Caracas, May 1987 - July 1993.

Visiting Professor and Senior Lecturer (part-time residence), Civil Engineering Department, Massachusetts Institute of Technology, Cambridge, Massachusetts, September 1987 - July 1993.

Endowed Professor of Civil and Environmental Engineering, Iowa Institute of Hydraulic Research, University of Iowa, Iowa City, Iowa, August 1989 - May 1991.

R. P. Gregory Chair Professor and Head of the Civil Engineering Department, Texas A&M University, College Station, Texas, August 1993 - August 1997.

Distinguished Professor and Holder of the R. P. Gregory Chair in Civil Engineering, September 1997 - January 31, 1999.

Director, Center for Energy and Environmental Studies, Princeton University, July 1, 1999 – June 2002

Professor, Department of Civil and Environmental Engineering, and Princeton Environmental Institute, Princeton University, Princeton, New Jersey, February 1, 1999 –

Theodora Shelton Pitney Professor of Environmental Sciences, Princeton University, 2001-2006

James S. McDonnell Distinguished University Professor of Civil and Environmental Engineering, Princeton University, 2006 - present

### **Representative Academic Responsibilities**

Member, Directory, National Council for Scientific and Technological Research (CONICIT), Venezuela, 1968.

Head, Committee for Technological Research, Venezuelan Institute for Scientific Research (IVIC), 1968-1970.

Coordinator, Project for the Study of Latin America (ESAL), Universidad Simón Bolívar, Caracas, 1976-1978.

Member, Engineering Commission of the National Council for Scientific and Technological Research (CONICIT), Venezuela, 1976-1980.

Member, Earth Sciences Commission of the National Council for Scientific and Technological Research (CONICIT), Venezuela, 1978-1980.

Coordinator, Earth Sciences Commission of the National Council for Scientific and Technological Research (CONICIT), Venezuela, 1981-1983.

Member, National Council for Scientific and Technological Research (CONICIT), Venezuela, 1981-1984.

Member, Executive Committee, Instituto Internacional de Estudios Avanzados (IDEA), Caracas, 1981 - 1990.

Member, Committee on Science and Technology in Developing Countries (COSTED), International Council of Scientific Unions (ICSU), 1981-1984.

Faculty Representative for the University Council, Universidad Simón Bolívar, Caracas, 1982-1984.

Member, Committee of the Scientific Prize “Lorenzo Mendoza Fleury” (Premio Polar), Caracas, 1986-1987.

Member, Advisory Committee, Center for Research and Technological Support of the Venezuelan Petroleum Industry (INTEVEP), Caracas, 1989 - 1990.

Member, Membership Committee on Engineering Sciences, Third World Academy of Sciences (ACAL), 1991-1994.

Member, Advisory Council, Engineering Research and Operations Department, Princeton University, Princeton, New Jersey, 1991 - 1994.

Member, Regional Advisory Committee (RAC) for Latin America, American Geophysical Union, Washington, DC, November 1992 - June 1994.

Member, Water Science and Technology Board, National Research Council, July 1, 1994 - June 30, 1997.

Member, Committee on Statistics in the Physical Sciences (CSPS), Bernoulli Society, 1995 -1997.

Member, Corporation Visiting Committee for the Department of Civil and Environmental Engineering, M.I.T., Cambridge, Massachusetts, 1996 -2004.

Member, U.S. National Committee for the International Institute for Applied System Analysis (IIASA), 2004-2006.

### **Awards and Distinctions**

Prize “Máxima Calificación.” Graduating Prize of the Engineering Class of

1963, Universidad del Zulia, Venezuela, 1963.

Research Prize, Venezuelan Society of Hydraulic Engineers, Caracas, 1968.

Plaque for Outstanding Teaching, Civil Engineering School, Universidad del Zulia, 1969.

“Conspicuously Effective Teaching Award,” Civil Engineering Department, Massachusetts Institute of Technology, September 1974.

Huber Research Prize, American Society for Civil Engineers, November 1975.

Hydrologic Sciences Award, American Geophysical Union, December 1975.

James B. Macelwane Award, American Geophysical Union, December 1977.

Medal “Orden 27 de June” for Merits in Education, Government of Venezuela, 1977.

Fellow, American Geophysical Union, 1977.

Vice President, International Commission on Water Resources Systems, International Association of Hydrological Sciences, 1980-1983.

Honorary President, 1st National Congress in Hydroclimatology, Caracas, 1983.

First Vice President, International Association of Hydrological Sciences (IAHS), 1983-1986.

Member, Latin American Academy of Sciences, 1983.

Prize “Francisco J. Torrealba,” awarded by the Universidad Simón Bolívar, for outstanding research accomplishments, Caracas, Venezuela, December 1985.

National Prize for best research paper in all branches of Engineering, National Council for Sciences and Technological Research (CONICIT), Caracas, 1987.

Member, United States National Academy of Engineering, 1988.

Member, Third World Academy of Sciences (TWAS), 1988.

Order “Andrés Bello,” 1st Class, Venezuela, 1988.

Chester K. Kisiel, Memorial Lecturer, University of Arizona, 1991.

National Science Prize, National Council for Sciences and Technological Research (CONICIT), Venezuela 1991.

Medal Dr. Antonio Borjas, Distinguished Alumnus Award, Universidad del Zulia, Venezuela, 1991.

Academic Medal of the University of Florence, Italy, October 1991.

Honorary Doctor's Degree, University of Genoa, Italy, June 1992.

Fellow, American Meteorological Society, 1992.

Academic Medal of the University of Padua, Italy, October 1992.

Colorado State University, 1994 Honor Alumnus Award.

Premio Mexico de Ciencia y Tecnologia 1994, Republica de Mexico, September 1994.

First Water Resources Engineering Distinguished Lecturer, Colorado State University, May 1994.

Robert E. Horton Lecturer in Hydrology, American Meteorological Society, January 1995.

Robert E. Horton Medal, American Geophysical Union, May 1998.

National Engineering Research Prize. Venezuela, December 1998.

Order Francisco Miranda (1<sup>st</sup> Class) for academic merits, Government of Venezuela, December 1998.

Moore Lecturer, University of Virginia, April 1999.

Member, The Water Academy, Uppsala, Sweden, 1999.

Walter Langbein Lecturer, American Geophysical Union, (Hydrology Section) May 2000.

Evnin Lecturer, Princeton University, Spring 2000.

Ven Te Chow Award for lifetime achievements in the field of hydrology. Awarded by the Environmental Water Resources Institute/American Society of Civil Engineers, May 2001.

Hydrology Days Award 2002, Colorado State University, April 2002.

Stockholm Water Prize, 2002.

Highly Cited Researcher, Institute of Scientific Information (ISI), 2003. -

Real Academia de Ciencias Exactas, Fisicas y Naturales, Academico Correspondiente Extranjero, Spain, February 2003.

Distinguished Lecturer, Texas A & M University College of Engineering, Spring 2003.

Honorary Doctor's Degree, Universidad del Zulia, Venezuela, October 2003.

Miller Research Professor, University of California, Berkeley, Winter 2004.

Academia de Ingenieria de Mexico, Academico Correspondiente Extranjero, April 2004.

Istituto Veneto di Scienze, Lettere ed Arti, Foreign Member, June 2004.

Honorary Emeritus Professor, Universidad Simon Bolivar, Caracas, 2005.

Honorary Member, National Academy of Engineering of Venezuela, 2006.

Blusa del Agua, awarded by the Tribunal de las Aguas, Valencia, Spain, February 2007.

Honorary Member, Colegio Ingenieros, Edo. Zulia, Venezuela, 2008.

Medal Hermagoras Chavez, Government of Edo. Zulia, Venezuela, 2008.

Honorary Professor, School of Engineering, Universidad del Zulia, Venezuela, 2008.

Member, Pontifical Academy of Sciences, Vatican City, 2008.

Edward O. Wilson Biodiversity Technology Pioneer Award, American Computer Museum and Montana State University, Inaugural Awards, April 2009.

William Bowie Medal, American Geophysical Union, 2009.

Landolt Lecturer, Ecole Polytechnique Federale de Lausanne, November 2009.

## **Representative Scientific Committees**

Member, Working Group in Stochastic Hydrology of the International Association for Scientific Hydrology, 1975-1978.

Member, Task Group of Stochastic Hydraulics of the International Association of Hydraulic Research, 1977-1980.

Member, Committee on Stochastic Hydrology, American Geophysical Union, 1977-1980.

Member, Network Design Committee, Hydrology Section, American Geophysical Union, 1977-1980.

Member, Technical Commission for Earth and Sea Science, National Council for Scientific and Technological Research (CONICIT), Venezuela, 1977-1980.

Member, Committee on System Analysis Applied to Water Resources Conference (Naciones Unidas), Mar del Plata, Argentina, 1978.

Member, Macelwane Award Subcommittee, Committee of Fellows of the American Geophysical Union, 1980-1982.

Member, International Program Committee, IFAC Symposium on Water and Related Land Resources Systems, sponsored by the World Environment and Resources Council, AGU and Water Resources Association, Cleveland, May 1980.

International Advisor, Graduate Course in General and Subterranean Hydrology, Buenos Aires, Argentina, 1980.

Member, International Program Committee, Symposium on Real Time Operation of Hydrosystems; University of Waterloo, Ontario, Canada, June 1981.

Member, Organizing Committee, International Symposium on Rainfall-Runoff Modeling, Mississippi State University, May 1981.

Fellows Subcommittee, Hydrology Section of the American Geophysical Union, 1981.

Chairman, Working Group on Scale Problems in Hydrology, International Association of Hydrological Sciences, 1980 - 1990.

Member, Scientific Committee, International Course in Water Resources, Perugia, Italia, July, 1984 - 1990.

Member, Committee for Developing Countries, International Union of Geodesy and Geophysics, 1984 - 1988.

Member, Executive Committee, Hydrology Section, American Geophysical Union, 1984-1988.

Member, International Programme Committee of the IFAC Conference on System Analysis Applied to Water and Related Land Resources, 1985.

Member, Planning Committee, Fourth International Symposium in Hydrology, Fort Collins, Colorado, July 1985.

Horton Medal Committee, American Geophysical Union, Hydrology Section, 1982-1984; 1986-1988.

Member, Advisory Committee, International Symposium on Flood Frequency and Risk Analyses, Baton Rouge, Louisiana, May 1986.

Member, Committee for the Scientific Prize “Lorenzo Mendoza Fleury” (Premio Polar), 1986-1987.

Member, U.S. National Research Council Planning Group for the Establishment of a Panel to Assess the Status and Needs of the Science of Hydrology, 1987.

Member, Steering Committee, International Meetings on Statistical Climatology, 1987 - 1990.

Member, Committee on Opportunities in the Hydrologic Sciences, U.S. National Research Council, 1987-1989.

Member, Scientific Committee, Summer School on Environmental Dynamics, Istituto Veneto di Scienze, Lettere ed Arti, Venecia, Italia, 1988 - 1998.

Member, Working Group on Terrestrial Ecosystems in Global Change, U.S. National Research Council, 1990-1991.

Member, Advisory Board, Center for Global and Regional Environmental Research, University of Iowa, 1990-1992.

Member, Organizing and Planning Committee, IV Conference on Rainfall Precipitations, American Meteorological Society & American Geophysical Union, Iowa City, May 1993.

Member, Scientific Committee, Hydrofractals '93, Lacco Ameno, Italia, May 1993.

Member, James B. Macelwane Medal Committee, American Geophysical Union, 1992-1994.  
Chair, Hydrology Subgroup, NASA Soil Moisture Workshop, January 1994.

Member, Awards Committee on Technology, The Third World Network of Scientific Organizations, 1995-1998.

Member, Earth System Science and Applications Advisory Committee (ESSAAC), NASA, 1996- 1997.

Member, Hydrology Section Award Committee, American Geophysical Union, 1998 - 2000.

Chairman, Horton Medal Committee, American Geophysical Union, 2000-2002.

Member, Langbein Lecture Committee, American Geophysical Union, 2001-2002.

Chair, Committee in Strengths, Weaknesses, Opportunities and Threats, Hydrology Section, American Geophysical Union, 2003

Member, U.S. National Committee, International Institute for Applied System Analysis, 2004 - present

### **Keynote Lecturer**

Urban Water Systems Institute, Colorado State University, August 1970.

American Geophysical Union 52nd Annual Meeting, Conceptions in Hydrology, Washington, DC, 1971.

General Reporter, International Symposium on Mathematical Models in Hydrology, Warsaw, 1971.

General Reporter, International Symposium on Uncertainties in Hydrologic and Water Resources Systems, Tucson, Arizona 1972.

Advanced Seminar in Hydraulic Resources, Universidad Simón Bolívar, Caracas, January 1973.

First Interamerican Seminar on Water Resources Systems Analysis, Venezuela, March 1973.

Applications of Systems Analysis to Water Resources Problems (Naciones Unidas), Buenos Aires, Argentina, November 1973.

Graduate Course in Hydrology, CIDIAT, Mérida, Venezuela, 1972-1977.  
Graduate Course in Transportation, Planning Division of the Ministry of Public Works, Venezuela, 1973-1977.

American Society of Civil Engineers, Specialty Conference on Probabilistic Methods in Engineering, Stanford University, June 1974.

Advanced Seminar in Water Resources, Universidad Simón Bolívar, Caracas. January 1975.

American Geophysical Union Symposium on Hydrologic Systems Analysis Aspects of Water Resources Planning, San Francisco, December 1974.

Plenary Conference of the Venezuelan Association for the Advancement of Science (AsoVAC), XXV Annual Convention, November 1975.  
International Institute for Applied Systems Analysis, Vienna, Austria, Seminar on Streamflow Simulation, February 1976.

Seminar on Hydrology and Water Resources, COPPE, Rio de Janeiro, Brazil, October 1977.

Keynote Lecturer at the Chapman Conference on Application of Kalman Filter to Hydrology: Application of Kalman Filter in Rainfall-Runoff Studies, Pittsburgh, May 1978.

Modern Techniques in Hydrologic Prediction, INCYTH-BID, Buenos Aires, Argentina, March-April 1977.

Symposium of Flood Frequency Methods, American Geophysical Union, San Francisco, December 1977.

General Reporter, Chapman Conference on Design of Hydrologic Data Networks, Tucson, Arizona, December 1978.

Invited Expert, World Climate Conference, sponsored by the World Meteorological Organization and National Research Council, Geneva, February 1979.

Invited Expert, UNESCO Conference in Hydrology, COLCIENCIAS, Bogotá, Colombia, May 1979.

Keynote Speaker, Symposium on the Physical Basis of Hydrology, American Geophysical Union Annual Meeting, San Francisco, December 1979.

Keynote Speaker, Symposium on the Hydrology of the Amazon River Basin, Brasilia, August 1979.

Chairman, International Hydrologic Symposium, Caracas 1979.

Chairman, "Stochastic Hydrology: Is It Worth a Dam?," Symposium, American Geophysical Union Fall Annual Meeting, San Francisco, December 1979.

Keynote Speaker, First Workshop Brazil - Venezuela, on Civil Engineering, 1980.

Invited Participant, Study Conference on Land Surface Processes in Atmospheric General Circulation Models, Global Atmospheric Research Programme. World Meteorological Organization, Maryland, January 1981.

Invited State-of-the-Art Address on Geomorphological Applications in Watershed Hydrology, International Symposium on Rainfall-Runoff Modeling, Mississippi, May 1981.

International Institute for Applied Systems Analysis, IIASA, Scale Problems in Hydrology, Laxenburg, Austria, November 1980.

Chairman, International Symposium on the Understanding of Hydrologic Processes at the Basin Scale, Caracas, January 1982.

Convener, Conference on Scale Problems in Hydrology I, Caracas, January 1982.

Keynote Speaker, II International Meeting on Statistical Climatology, Lisbon, 1983.

Session Chairman, Plenary Session on the IAHS Hamburg Symposium "Scientific Procedures Applied to Planning, Design and Management of Water Resources Systems," Hamburg, August 1983.

Convener, Workshop on Scale Problems in Hydrology, Hamburg Symposium of the International Association of Scientific Hydrology, Hamburg, August 1983.

International Course in Water Resources, Perugia, Italy, July 1984, 1985, 1986.

Invited Lecturer, University of Genoa, Research Institute for the Hydrological Protection in Central Italy, Perugia, Italy, July 1984.

Invited Lecturer, Symposium "Investigations on Meso Scale Precipitation Fields," American Geophysical Union Annual Meeting, May 1984.

Invited Lecturer, Symposium “Scale Problems in Hydrology II,” Princeton, October 1984.

Co-Convener (with V. Gupta & E. Wood), Conference on Scale Problems in Hydrology II, Princeton, October 1984.

Keynote Speaker, IV International Symposium in Hydrology, Fort Collins, Colorado, July 1985.

Keynote Speaker, International Symposium on Flood Frequency and Risk Analyses, Baton Rouge, Louisiana, May 1986.

Convener, Workshop on the “Geomorphology and Numerical Modelling of Catchment Behavior,” IAHS II Scientific Assembly, Budapest, Hungary, July 1986.

Convener, American Geophysical Union, Chapman Conference on Modeling of Rainfall Fields, Universidad Simón Bolívar, Caracas, Venezuela, March 24-27, 1986.

Invited Participant, Dahlem Konferenzen on Resources and World Development: Water and Land, Berlin, April 27 - May 21, 1986.

Chairman, II Session of International Seminar on Drought Analysis, WARREDOC, Perugia, Italy, May 1986.

Convener and Keynote Speaker, International Seminar on Drought Analysis (Session on Research Needs in Drought Analysis), WARREDOC, Perugia, Italy, May 1986.

Invited Lecturer, Some Stochastic Models of Rainfall with Particular Reference to Hydrological Applications, D.R. Cox and I. Rodríguez-Iturbe, Joint Congress of the International Statistics Society and the Bernoulli Society, Tashkent, USSR, September 1986.

British Research Council Fellow, Imperial College, London, Department of Mathematics and Statistics, October 1986.

Annual Visiting Lecturer in Statistics in Water Resources, Center for Research in Water Resources and Center for Statistical Sciences, University of Texas, Austin, November 1987.

Invited Lecturer, Conference on Mesoscale Precipitation Analysis, Simulation and Forecasting, Massachusetts Institute of Technology, Cambridge, MA, September 13-16, 1988.

Invited All Union Conference, American Geophysical Union, Committee on Opportunities in Hydrologic Sciences, Washington, October 1988.

Invited Lecturer, Summer School on Environmental Dynamics, Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy, 1988 - Present.

Keynote Speaker, 8th International Conference on Computational Methods in Water Resources, Venice, Italy, June 1990.

Keynote Opening Lecturer, 8th Conference on Hydrometeorology, American Meteorological Society, Kananaskis, Canada, October 1990.

Chester Kisiel Memorial Lecturer, University of Arizona, Tucson, AZ, March 1991.

Keynote General Lecturer, 24th Congress of the International Association for Hydraulic Research, Madrid, Spain, September 1991.

Keynote Speaker, 20th Anniversary Celebration, School of Engineering, University of Florence, Symposium "L'Ingegneria per la Qualita' della Vita," Florence, Italy, October 14-16, 1991.

Invited Speaker, Symposium "The World at Risk: Natural Hazards and Climate Change," Massachusetts Institute of Technology, Cambridge, MA, January 1992.

Keynote Speaker, Symposium "Advances in Distributed Hydrology," Bergamo, Italy, June 1992.

Closing Lecture of the 5-year cycle of the Summer School in Environmental Dynamics (1988-1993), Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy, June 1993.

Keynote Speaker and General Lecturer, International Conference on Fractals in Hydrology, Hydrofractal 93, Ischia, Italy, October 12-15, 1993.

Visiting Invited Professor, Universita di Potenza, Italy, October 17-23, 1993.

Invited Lecturer, NASA Soil Moisture Workshop, Tiburon, California, January 25-27, 1994.

Invited Lecturer, Distinguished Water Resources Lecture, Civil Engineering Department, Colorado State University, Colorado, May 13, 1994.

Invited Lecturer, International Workshop on "Frontiers and Opportunities in Research in Hydrology Meteorology and Climate," Istituto Veneto di

Scienze, Lettere ed Arti, Venice, October 28-29, 1994.

Plenary Conference, “Fractal River Basins: Chance and Self-Organization,”  
40th Anniversary Assembly of the Venezuelan Association for the  
Advancement of Science, Caracas, November 1995.

Inaugural Address, Symposium La Nuova Idrologia, University of Padova,  
Italy, January 1996.

Invited Lecturer, “Landforms and River Networks I,” First Workshop on  
Stochastic and Statistical Methods in Hydrology (Rainfall, Landforms and  
Floods), CIMAT Guanajuato, México, March 25-28, 1996.

Inaugural Address, Symposium on Scale Problems in Hydrology, Vienna,  
Austria, June 1996.

Invited Lecturer, Summer School on Environmental Dynamics - Network  
Models, Venice, Italy, June 1997.

Keynote Speaker, Symposium on Hydrology in the 20<sup>th</sup> Century, Lessons  
from the Past and Challenges for the Future, XXV General Assembly,  
European Geophysical Society, Nice, France, April 2000.

Keynote Speaker, GEWEX/BAHC International Workshop on Soil Moisture  
Monitoring, Analysis and Prediction for Hydrometeorological and  
Hydroclimatological Applications, Norman Oklahoma, May 2000.

Invited Lecturer, Towards Integration of Hydrological and Ecological  
Sciences, Workshop Water Science and Technology Board, West Palm  
Beach, Florida, October 2000.

Invited Lecturer, 1<sup>st</sup> Kirkham Conference, Ames, Iowa, November 2000.

Keynote Opening Conference, Venezuelan Association for Advancement of  
Science, November 2000.

Keynote Speaker, Hydrology Days 2002, Fort Collins, Colorado, April 2002.

Plenary Lecture, XIV Conference on Computational Methods in Water  
Resources, Delft, June 2002.

Keynote Speaker, Chapman Conference in Ecohydrology, Taos, New  
Mexico, September 2002.

Curso Magistral, Fronteras de la Hidrologia Superficial del Siglo 21,  
Universidad International Menendez Pelayo, Valencia, Spain, July 2003.

Keynote Speaker, Hydrology: Science and Practice for the 21st Century-  
International Conference, London, July 2004.

Keynote Speaker, Celebrating Statistics: International Conference in Honour  
of Sir David Cox, Neuchatel, July 2004.

Invited Lecturer, Voices of World Program, Polar Foundation, Caracas,  
Venezuela, 2004.

Co-Director and Lecturer, Alpine Summer School on Water-Vegetation  
Interactions and Biodiversity in Changing Environments, Valsavarenche,  
Italy, 2005.

Invited Lecturer and Convener, Vatican Academy of Sciences Conference on  
Water and the Environment, Vatican City, 2005.

Keynote Lecturer, Congress in Water and Environment, Valencia, Spain,  
2007.

Keynote Lecturer, 32<sup>nd</sup> Congress of the International Association of  
Hydraulic  
Research, Venice, Italy, 2007.

Invited lecturer, Latsis Symposium 2007, “Research Frontiers on  
Environmental and Sustainability”, ETH Zurich, Switzerland, 2007.

Keynote Lecturer at the XXXII Congress of the International Association for  
Hydraulic Research, Venice, Italy, June 2007.

### **Editorial Boards**

*Journal of Hydrology*, Elsevier, North Holland, 1977-1991, Associate Editor.

*Acta Científica Venezolana*, Venezuelan Association for the Advancement of  
Science (AsoVAC), 1976-1977.

*Hydrological Sciences*, Journal of the International Association of  
Hydrological Sciences. 1980-1989, Associate Editor.

Editorial Advisory Board, *Water Science and Technology Library*, D. Reidel  
Publishing Company, 1983-1992.

Editorial Advisory Board, *Stochastic Hydrology and Hydraulics*, Springer  
Journal, 1986-1991.

Editorial Board, *Advances in Water Resources*, Elsevier Publishing Company,  
1992- present.

Editorial Board, *Ingenieria Hidraulica en Mexico*, 1994- present.

Editorial Board, *Journal of Geophysical Research - Atmospheres*, American Geophysical Union, 1998- 2002.

Editorial Board, *Biogeosciences*, European Geosciences Union 2004-2007.

Editorial Board, *Environmental Engineering Science*, 2005-present.

Editorial Board, *Ecohydrology*, 2008-present.

### **Principal Publications**

#### **Books:**

*Water and the Environment*, edited by I. Rodríguez-Iturbe and M. Sanchez Sorondo, Scripta Varia 108, Pontifical Academy of Sciences, 234 pp., 2007

*Ecohydrology of Water Controlled Ecosystems: Soil Moisture and Plant Dynamics*, by I. Rodríguez-Iturbe and A. Porporato, Cambridge University Press, 450 pp., December 2004.

*Fractal River Basins: Chance and Self-Organization* by I. Rodríguez-Iturbe and A. Rinaldo, Cambridge University Press, 580 pp., May 1997.

*Rainfall Fields: Estimation Analysis and Prediction*, edited by H.R. Cho, M. Fritsch, V.K. Gupta, I. Rodríguez-Iturbe, and M. Taqqu, published as a special volume by the American Geophysical Union from the *Journal of Geophysical Research*, Vol. 92, D8, August 1987.

*Scale Problems in Hydrology: Runoff Generation and Basin Response*, edited by V.K. Gupta, I. Rodríguez-Iturbe, and E.F. Wood, FD. Reidel Publishing Company, 244 pp., May 1986.

*Random Functions and Hydrology*, by R. L. Bras and I. Rodríguez-Iturbe, Addison-Wesley Publishing Company, Reading, MA, 590 pp., January 1985. Unabridged Dover republication of this edition, 1993.

*Scale Problems in Hydrology*, edited by I. Rodríguez-Iturbe and V.K. Gupta, published as a double issue of the *Journal of Hydrology*, Elsevier Publishing Company, 257 pp., August 1983.

#### **Video:**

Willgoose, G., R.L. Bras, and I. Rodríguez-Iturbe, *A Model of Catchment Evolution: A Computer Animation*, 1990.

### **Papers in Journals:**

- Azaele, S., R. Muneeppeerakul, A. Rinaldo, and I. Rodríguez-Iturbe, Inferring plant ecosystem organization from species occurrences, accepted for publication, *Journal of Theoretical Biology*, Sept. 2009.
- Bertuzzo, E., R. Muneeppeerakul, H. J. Lynch, W. F. Fagan, I. Rodríguez-Iturbe, and A. Rinaldo, On the geographic range of freshwater fish in river basins, accepted for publication, *Water Resources Research*, July 2009.
- Suweis, S.S., Bertuzzo, E., Botter, G., Porporato, A., Rodríguez-Iturbe, I., and A. Rinaldo, The impact of stochastic fluctuations in the storage-discharge relation on streamflow distributions. Accepted for publication, *Water Resources Research*, October 2009.
- Bertuzzo, E., Casagrandi, R., Gatto, M., Rodríguez-Iturbe, I., and A. Rinaldo, On spatially explicit models of cholera epidemics, *Journal of the Royal Society Interface*, 1-13, doi:10.1098/rsif.2009.0204.
- Covertino, M., Muneeppeerakul, R., Azaele, S., Bertuzzo, E., Rinaldo, A., and I. Rodríguez-Iturbe, On neutral metacommunity patterns of river basins at different scales of aggregation. *Water Resources Research*, 45, W08424, doi:10.1029/2009 WR00779.
- Caylor, K.K., Scanlon, T.M., and I. Rodríguez-Iturbe, Ecohydrological optimization of pattern and processes on water limited ecosystems: A trade off-based hypothesis, *Water Resources Research*, 45, WR08407, doi:10.1029/2008 WR007230.
- Azaele, S., R. Muneeppeerakul, A. Maritan, A. Rinaldo, and I. Rodríguez-Iturbe, Predicting spatial similarity of freshwater fish biodiversity, *Proceedings National Academy of Sciences*, 2009, 106:7058-7062, doi: 10.1073/pnas.0805845106.
- Tamea, S., F. Laio, L. Ridolfi, P. D'Odorico, and I. Rodríguez-Iturbe, Stochastic soil moisture dynamics in groundwater-dependent ecosystems, *Water Resources Research*, Vol. 45, W05420, doi:10.1029/2008 WR007293, 2009.
- Laio, F., S. Tamea, L. Ridolfi, P. D'Odorico, and I. Rodríguez-Iturbe, Stochastic water table dynamics in groundwater-dependent ecosystems, *Water Resources Research*, Vol. 45, W05419, doi:10.1029/2008 WR007292, 2009.
- Botter, G., A. Porporato, I. Rodríguez-Iturbe, and A. Rinaldo, Stochastic non-linear storage-discharge relations and catchment streamflow regimes, in press,

Water Resources Research, 2009.

Rodríguez-Iturbe, I., R. Muneeppeerakul, E. Bertuzzo, S. Levin, and A. Rinaldo, River networks as ecological corridors: a complex system perspective for integrating hydrologic, geomorphologic, and ecologic dynamics, *Water Resources Research*, 45, W01413, 2009.

Muneeppeerakul, R., Bertuzzo, E., Rinaldo, A., and I. Rodríguez-Iturbe, Patterns of vegetation biodiversity: the roles of dispersal directionality and river network structure, *Journal of Theoretical Biology*, 252, 221-229, 2008.

Botter, G., Zanardo, S., Porporato, A., Rodríguez-Iturbe, I., and A. Rinaldo, Ecohydrological model of flow duration curves and annual minima, *Water Resources Research*, 44, W08418, doi:10.1029/2008WR006814, 12p., 2008.

Muneeppeerakul, C. P., Miralles-Wilhem, F., Tamea, S., Rinaldo, A., and I. Rodríguez-Iturbe, Coupled hydrologic and vegetation dynamics in wetland ecosystems, *Water Resources Research*, 44, W07421, 2008.

Muneeppeerakul, R., Bertuzzo, E., Lynch, H., Fagan, W.F., Rinaldo, A., and I. Rodríguez-Iturbe, Netural metacommunity models predict fish diversity patterns in Mississippi-Missouri basin, *Nature*, Vol. 453, 220-223, May 2008.

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