

DANIEL GIANOLA
CURRICULUM VITAE

Education:

Ing. Agr. (Agriculture and Animal Production), Universidad de la Republica, Montevideo; M. S. (Dairy Science), University of Wisconsin-Madison; Ph. D. (Animal Breeding with minor in Statistics), University of Wisconsin-Madison.

Professional Experience:

2007-Present Sewall Wright Professor, Department of Animal Sciences and Department of Dairy Science, University of Wisconsin-Madison.
1997-Present Professor, Department of Biostatistics and Medical Informatics, University of Wisconsin-Madison.
1991-Present Professor, Department of Animal Sciences and Department of Dairy Science, University of Wisconsin-Madison.
2001-2012 Visiting Professor (recurrent), Department of Animal and Aquacultural Sciences, Norwegian University of Life Sciences, Ås, Norway.
1978-1991 Assistant Professor, Associate Professor (1981), Professor (1987), Department of Animal Sciences, University of Illinois at Urbana-Champaign.
1975-1977 Population and Livestock Specialist, World Bank, Washington D.C.
1975 Research Assistant, Department of Medical Genetics, University of Wisconsin- Madison.
1974 Research Assistant, Department of Animal Science, Cornell University, Ithaca, New York.
1970 Trainee, Plan Agropecuario, Uruguay.
1966 Teaching Assistant in Analytical Chemistry, Universidad de la Republica, Uruguay.

Fields of work:

Quantitative genetics theory and applications to animal (e.g., dairy cattle, poultry) and plant breeding (e.g., wheat and maize); also involved in projects related to whole-genome prediction of skin and bladder cancer in humans. Pioneered application of Bayesian methods to animal breeding as well as of related Markov chain Monte Carlo methods. Published extensively on prediction of complex traits using mixed model methodology, hierarchical Bayesian regression methods, and machine learning techniques. First group in the world suggesting non-parametric methods, such as reproducing kernel Hilbert spaces regression and Bayesian neural networks, for genome-enabled selection in agriculture and whole-genome prediction of complex traits or diseases.

Peer reviewed publications:

>300. Google Scholar (13482 citations): second/third most cited author in “animal genetics”, “animal breeding” and “genomic selection”; fourth most cited in “Bayesian methods”; first cited in “genomic prediction”

Honors:

2015 Hilldale Award in the Biological Sciences, University of Wisconsin-Madison.
2014 Elected member of the Accademia dei Georgofili, Florence, Italy.
2013 Elected member of the Academie Francaise d’Agriculture, Paris, France
2012 Dr. Sc. Honoris Causa, Iowa State University, USA
2011 Hans Fischer Senior Fellow Award, Technische Universität München, Germany
2010 Dr. Sc. Honoris Causa, Universidad de la Republica, Montevideo, Uruguay
2010 Dr. Sc. Honoris Causa, University of Aarhus, Denmark

- 2009 Dr. Sc. Honoris Causa, Facultad de Agronomía, Montevideo, Uruguay
- 2009 Dr. Sc. Honoris Causa, George August University Gottingen, Germany
- 2007 Alexander Von Humboldt Senior Research Award, Alexander von Humboldt Foundation, Bonn, Germany
- 2007 Chaire D'Excellence Pierre de Fermat, Region Midi-Pyrenees, Toulouse, France
- 2007 Sewall Wright Professor of Animal Breeding and Genetics, University of Wisconsin-Madison
- 2006 Mercator Visiting Professor (German Research Foundation) at the University of Göttingen, Germany.
- 2002 Dr. Sc. Honoris Causa, Universidad Politécnica de Valencia, Spain.
- 1995 Fellow, American Statistical Association, U.S.A., for: "Influential research in statistical methods for quantitative genetics; for pioneering work on Bayesian methods applied to animal breeding; and for excellence in international teaching of advanced statistical methods."
- 1989 Rockefeller Prentice Memorial Award for Outstanding Contributions to Animal Breeding and Genetics Research, American Society of Animal Science, U.S.A.
- 1989 J. L. Lush Award for Outstanding Research in Animal Breeding, American Dairy Science Association, U.S.A.
- 1987 University Scholar, University of Illinois, USA. "Recognition of the very best of faculty scholarship at the University of Illinois".
- 1987 Outstanding Young Researcher, American Society of Animal Science, Midwestern Section, U.S.A.
- 1983 H. H. Mitchell Award for Excellence in Graduate Teaching and Research, Department of Animal Science, University of Illinois, U.S.A.

Scientific communication:

Close to 200 invited scientific presentations, including plenary sessions at several scientific meetings.

Teaching and mentoring:

PhD level courses in statistical genetics and breeding plans; linear mixed model methodology; Bayesian methods for geneticists; introduction to machine learning; advanced quantitative genetics, and prediction of complex traits. Sixty (60) intensive courses taught to researchers in agricultural, medical and mathematical sciences, in more than 20 countries. Supervised close to 100 Master of Science, Doctor of Philosophy and post-doctoral scholars. Served as external examiner in 15 PhD thesis defense committees in Argentina, Australia, France, Germany, Italy, Mexico, Portugal and Spain.

Service to Agricultural Industries:

- 2011-Present Member of the Scientific Advisory Board to Interbull (Uppsala, Sweden) a 32-country organization responsible for computing international genetic evaluations of dairy cattle.
- 2009-Present Member of International Scientific Committee off Aviagen Limited (Newbridge Scotland), a company delivering genetic material worldwide for broiler breeding.
- 2013-Present Member of Scientific Committee of GENSAP (Foulum, Denmark), a center for applications of genomic selection to animals and plants.
- 2012-2014 Member of Scientific Committee of Synbreed, a research project on synergistic animal and plant breeding funded by the German Research Foundation, and coordinated by the University of Goettingen and by the Technical University of Munich, Germany.