Gonzalo Martínez García

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Soil scientist/ hydrologist.

Visiting scientist, Spanish Ministry of Education
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Education

2009. Ph. D. in soil science. Department of Agronomy, University of Cordoba (Spain). Dissertation title: Possible applications of an electromagnetic induction sensor to characterize soil properties.

2008. M. Sci. in environmental hydraulics. Department of Agronomy, University of Cordoba (Spain).

2006. Advanced studies diploma in biogeochemical fluxes dynamics and applications. University of Cordoba (Spain).

2004. Bachelor degree in agricultural engineering. Higher Technical School of Agricultural Engineering, Polytechnic University of Madrid (Spain).

Professional Experience

2011- present. Visiting scientist at the USDA-ARS Environmental Microbial & Food Safety Laboratory, Beltsville Agricultural Research Center, Beltsville, MD, USA.
2010-2011. Researcher in the R & D department of BEFESA Water. Seville, Spain.
2005-2009. Ph. D. student of the Natural resources and Agroecology Department of the Andalusian Institute of Research and Training in Agriculture and Fishing. Seville, Spain.
2003-2005. Undergraduate research scholar of the Department of Agronomy, University of Cordoba, Spain.

Research Area

Research on the environmental modeling of the fate and transport of manure-borne pathogens.
Research on the mechanisms and controls of spatio-temporal patterns of soil water contents.

Professional Affiliations

- European Geosciences Union
- Soil Science Society of America
- American Geophysical Union

Grants

2011. Research Scholarship from the Spanish Ministry of Education
2011. Research Scholarship from the Andalusia Regional Government, Spain.
2005. Ph. D. scholarship from the Andalusia Regional Government and the National Institute of Agricultural Research of Spain.

Publications

2013

G. Martinez; Y. Pachepsky; H. Vereecken. Temporal stability of soil water contents as affected by soil hydraulic properties and climate: a simulation study. Hydrological processes. 2012. Accepted for publication.

2012

G. Martinez; Y.A. Pachepsky; D. R. Shelton; G. Whelan; R. Zepp; M. Molina; K. Panhorst. Using the Q10 model to simulate E. coli survival in cowpats on grazing lands. Environment International. 2012. doi:10.1016/j.envint.2012.12.013

G. Martinez; Y.A. Pachepsky; H. Vereecken; H. Hardelauf; M. Herbst; K. Vanderlinden. Modeling Local Control Effects on the Temporal Stability of Soil Water Content. Journal of Hydrology. 2012. doi:10.1016/j.jhydrol.2012.12.024.

G. Martinez; K. Vanderlinden; Y.A. Pachepsky; J.V. Giraldez; A.J. Espejo. Estimating topsoil water content of clay soils with data from time-lapse electrical conductivity surveys. Soil Science.177:369-376.

D.R. Shelton; L.A. Kiefer; Y.A. Pachepsky; R.A. Blaustein; G. Martinez. Coliform retention and release in biofilms formed on new and weathered irrigation pipes. Irrigation Science. DOI 10.1007/s00271-012-0373-x

K. Vanderlinden; H. Vereecken; H. Hardelauf; M. Herbst; G. Martinez; M. Cosh; Y. Pachepsky. Temporal Stability of Soil Water Contents: A Review of Data and Analyses. Vadose Zone Journal: 11:1-20. doi:10.2136/vzj2011.0178

2011

G. Martinez; K. Vanderlinden; J.V.Giraldez; A.J.Espejo; J.L. Muriel. Field-scale soil moisture pattern mapping using electromagnetic induction. Vadose Zone Journal.9:871-881.

I. Garcia-Tejero; V.H. Duran-Zuazo; J.L. Muriel-Fernandez; G. Martinez; J.A. Jimenez-Bocanegra. Benefits of low-frequency irrigation in citrus orchards. Agronomy for Sustainable Development.31: 779 - 791.

2010

I. Garcia-Tejero; R. Romero-Vicente; J.A. Jimenez-Bocanegra; G. Martinez; V.H. Duran-Zuazo; J.L. Muriel. Response of citrus trees to deficit irrigation during different phenological periods in relation to yield, fruit quality, and water productivity. Agricultural Water Management.97: 689 - 699.

I. Garcia-Tejero; J.A. Jimenez-Bocanegra; G. Martinez R. Romero; V.H. Duran-Zuazo; J.L. Muriel. Positive impact of regulated deficit irrigation on yield and fruit quality in a commercial citrus orchard [Citrus sinensis (L.) Osbeck, cv. salustiano]. Agricultural Water Management.97:614 - 622.

2009

G. Martinez; K. Vanderlinden; Ordóñez Fernández; J.L. Muriel. Can apparent electrical conductivity improve the spatial characterization of soil organic carbon? Vadose Zone Journal.8:586-593. 2009.