Daryl E. Herzmann

Biographical Sketch

Contact Information

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Professional Preparation

• B.A., 2001, Iowa State University. Meteorology Major.

Appointments

Iowa State University, October 1997 - present

* October 1997 -May 2001: Partnerships to Advance Learning in Science (PALS). Supervisor: Dr Doug Yarger. Duties included website administration, database programming and data manipulation.
* March 1998 -May 2001: International Institute for Theoretical & Applied Physics (IITAP). Supervisor: Doug Fils. Duties included multi-platform systems administration, computer programming and computer instruction.
* August 2001 -present: Iowa Environmental Mesonet (IEM). Supervisors: Dr Dennis Todey, Dr Raymond Arritt, and Dr Rick Cruse. Duties included integrating, archiving, disseminating and analyzing diverse environmental datasets. Serves as the focal point for the IEM eﬀort.

Publications

* Iqbal, Javed, M. Necpalova, S. Archontoulis, R. Anex, M. Bourguignon, **D. Herzmann**, D. Mitchell, J. Sawyer, Q. Zhu, and M. Castellano. Extreme weather-year sequences have nonadditive effects on environmental nitrogen losses. Global Change Biology, 2017; 24 e303-e317. <http://dx.doi.org/10.1111/gcb.13866>
* Valcu-Lisman, A.M., P.W. Gassman, R. Arritt, T. Campbell, and **D.E. Herzmann**. Cost-effectiveness of reverse auctions for watershed nutrient reductions in the presence of climate variability: An empirical approach for the Boone River watershed. Journal of Soil and Water Conservation, 2017; 72(3) 280-295. <http://dx.doi.org/10.2489/jswc.72.3.280>
* Hornbuckle B, J. Patton, A. VanLoocke, A. Suyker, M. Roby, V. Walker, E. Iyer, **D. Herzmann**, and E Endacott. SMOS optical thickness changes in response to the growth and development of crops, crop management, and weather. Remote Sensing of Environment, 2016; 180 320–333. <http://dx.doi.org/10.1016/j.rse.2016.02.043>
* Panagopoulos Y, Gassman P W, Arritt R W, **Herzmann D E**, Campbell T D, Valcu A, et al. Impacts of climate change on hydrology, water quality and crop productivity in the Ohio-Tennessee River Basin. Int J Agric & Biol Eng, 2015; 8(3)
* **Herzmann, D.**, L. Abendroth, and L. Bunderson. 2014. Data management approach to multidisciplinary agricultural research and syntheses. Journal of Soil and Water Conservation, 69(6), 180A-185A. http://dx.doi.org/10.2489/jswc.69.6.180A

Synergistic Activities

* The Iowa Environmental Mesonet. Integrating diverse datasets from eight diﬀerent observing networks in the state of Iowa. Program and maintain data ingestion / manipulation systems to process the data. Exploring and implementing new techniques for data visualization and dissemination. Coordinate with local agencies with oversight of their observing networks. Data focal point for observations in the state of Iowa.
* Sustainable Corn CAP (Cropping Systems Coordinated Agricultural Project: Climate Change, Mitigation, and Adaptation in Corn-based Cropping Systems). The project was a multi-state transdisciplinary project supported by the USDA that integrated diverse datasets into a central database.
* The Daily Erosion Project. This project models near real time sheet and rill soil loss over agricultural regions of the midwestern US.