Ruth Kerry: Department of Geography, Brigham Young University
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Education
2004, University of Reading, UK
   PhD Soil Science and Precision Agriculture - full scholarship
1997, University of Reading, UK
   MSc in Soil Spatial Analysis and Land Evaluation, Pass with Distinction - full scholarship
1995, University of Oxford, St Hugh's College, UK
   BA/MA Honours in Geography II(i)

Professional Experience since PhD
January 2021: Associate Professor
   Brigham Young University, Department of Geography
Fall 2017-Fall 2022: Affiliate Assistant Professor
   Auburn University, Crop, Soil and Environmental Sciences Department
Fall 2014-2019: Affiliate Researcher, resident in UK
   Brigham Young University, Department of Geography
September 2007 – August 2008: Visiting Scholar
   Grant F. Walton Center for Remote Sensing and Spatial Analysis, Rutgers University, New Jersey
January-July 2005, June-September 2007, May-August 2009, May-August 2010, May-August 2012
   Visiting Scholar, ***University of Cambridge, Department of Geography, UK***
Fall 2004 – Winter 2014, Winter 2020: Part-time Faculty and Associate Lecturer, Classes: Quantitative Methods, Mentored Research, Landforms; Climatology, Physical Geography, ***Brigham Young University, Department of Geography***

Selected Publications
Edited Volumes/Books
Kerry, R. & Escola, A. IN PREPARATION. Sensing Approaches for Precision Agriculture. Part of the Springer series: *Progress in Precision Agriculture*.
Kerry, R. (Guest Editor), Stafford, J. V. & Lowenberg DeBoer, J.M. 2019. Special Issue: The 11th European Conference on Precision Agriculture, Precision Agriculture, 20:2.
Kerry, R., Oliver, M. A. & Haining, R. P. Guest Editors 2010. Special Issue: Geostatistical Methods in Geography: Applications in Physical Geography. *Geographical Analysis*. 42:2.
Kerry, R. (Guest Editor). 2008. Special Issue on Spatial Variation in Precision Agriculture. *Precision Agriculture*. Volume 9.

Peer-reviewed Book Chapters
Kerry, R., Oliver, M. A. & Frogbrook, Z. L. 2010. Sampling I. In: M.A. Oliver (ed.) *Geostatistical Applications for Precision Agriculture*. Springer. pp. 35-64.
Goovaerts, P. & *Kerry, R.* 2010. Use of ancillary data in precision agriculture. In: M.A. Oliver (ed.) *Geostatistical Applications for Precision Agriculture*. Springer. pp. 167-194.

Peer-reviewed Journal Articles
Taghizadeh-Mehrjardi, R., Nabiollahi, K., Rasoli, L., *Kerry, R*. & Scholten, T. 2020. Land Suitability Assessment and Agricultural Production Sustainability Using Machine Learning Models. *Agronomy,* 10, 573.
Fathizada, H., Ardakania, M. A. H., Sodaiezadeha, H., *Kerry, R*. & Taghizadeh-Mehrjardic, R. 2020. Investigation of the spatial and temporal variation of soil salinity using random forests in the central desert of Iran. *Geoderma*, 365, 114233.
Zeraatpisheh, M., Jafari, A., Bagheri Bodaghabadi, M., Ayoubi, S., Taghizadeh-Mehrjardi, R., Toomanian, N., *Kerry, R*. & Ming Xu. 2020. Conventional and Digital Soil Mapping in Iran: Past, Present, and Future. *Catena*. 188, 104424.
Behrens, T., Viscarra Rossel, R. A., *Kerry, R*., MacMillan, R., Schmidt, K., Lee, J., Scholten, T. & Zhu, A. X. 2019. The relevant range of scales for multi-scale contextual spatial modelling. *Sci. Rep.*, 9: 14800.
Hirmas, D. R., Giménez, D., Nemes, A., Kerry, R., Brunsell, N. A. & Wilson, C.J. 2018. Climate-induced changes in continental-scale soil macroporosity may intensify water cycle. *Nature*, 561:100-103.
Yoo, E., *Kerry, R*., Ingram, B. R., Ortiz, B. & Scully, B. 2018. Defining and Characterizing Aflatoxin Contamination Risk Areas for Corn in Georgia, USA: Adjusting for Collinearity and Spatial Correlation. *Spat. Stat.*, 28, 84-104.

Nabiollahi, K., Golmohamadi, F., Taghizadeh-Mehrjardi, R., _Kerry, R_. & Davari, M. 2018. Assessing the effect of slope gradient and land use change on soil quality degradation through digital mapping of soil quality indices and soil loss rate. *Geoderma*, 318: 16-28.

Nabiollahi, K., Taghizadeh-Mehrjardi, R., _Kerry, R_. & Moradian, S. 2017. Assessment of soil quality indices for salt-affected agricultural land in Kurdistan Province, Iran. *Ecol. Indic.,* 83: 482–494.

Kerry, R., Goovaerts, P., Giménez, D. & Oudemans, P. 2017. Investigating temporal and spatial patterns of cranberry yield in New Jersey fields. *Precis. Agric.*, 18 (4), 507-524.

Kerry, R., Ortiz, B., Ingram, B. R. & Scully, B. T. 2017. A Spatio-Temporal Investigation of Risk Factors for Aflatoxin Contamination of Corn in Southern Georgia, USA using Geostatistical Methods. *Crop Prot*. 94, 144-158.

Mirzaee, S., Ghorbani-Dashtaki, S., Mohammadi, J. & _Kerry, R_. 2017. Modeling WEPP erodibility parameters in calcareous soils in northwest Iran. *Ecol. Indic*. 74, 302–310.

Ostovari, Y., Ghorbani-Dashtaki, S., Bahrami, H., Naderi, M., Dematte, J. & _Kerry, R_. 2016. Modification of the USLE K factor for soil erodibility assessment on calcareous soils in Iran. *Geomorphology*, 273, 385-395.

Kerry, R., Goovaerts, P., Giménez, D., Oudemans, P & Muñiz, E. 2016. Investigating geostatistical methods to model within-field yield variability of cranberries for potential management zones. *Precis. Agric.*, 17, 243-273.

Taghizadeh-Mehrjardi, R., Nabiollahi, K. & _Kerry, R_. 2016. Digital mapping of soil organic carbon at multiple depths using different data mining techniques in Baneh region, Iran. *Geoderma*, 266, 98-110.

Kerry, R., Goovaerts, P., Rawlins, B. G. & Marchant, B. P. 2012. Disaggregation of legacy soil data using area to point kriging for mapping soil organic carbon at the regional scale. *Geoderma*, 170:347-358.

Kerry, R. & Oliver, M. A. 2011. Soil Geomorphology: Identifying Links between Processes and the Scale of Spatial Variation using the Variogram. *Geomorphology*, 130:40-54.

Haining, R. P., _Kerry, R_ & Oliver, M. A. 2010. Geography, Spatial Data Analysis and Geostatistics: An Overview. *Geogr. Anal*. 42:1, 7-31.

Kerry, R, Rawlins, B. G., Oliver, M. A. & Lacinska, A. M. 2009. Problems with determining the particle size distribution of chalk soil and some of their implications, *Geoderma*, 152:324-337.

Kerry, R. & Oliver, M. A. 2008. Determining nugget:sill ratios of standardized variograms from aerial photographs to krige sparse soil data. *Precis. Agric.*, 9, 33–56.

Kerry, R. & Oliver, M. A. 2007. Sampling requirements for variograms of soil properties computed by the method of moments and residual maximum likelihood. *Geoderma*, 140:4, 383-396

Kerry, R. & Oliver, M. A. 2007. Mapping Soil Structure using Ranked Observations and Indicator Kriging. *Geoderma* 140:4, 397-416.

Kerry, R. & Oliver, M.A. 2004. Average variograms to guide soil sampling for land management. The International *Journal of Applied Earth Observation and Geoinformation*, 5, 307-325.

Kerry, R. & Oliver, M.A. 2003. Variograms of ancillary data to aid sampling for soil surveys. *Precis. Agric.*, 4, 261-278.

Selected Recent Conference Presentations

"Variable Rate Irrigation with in-Situ Soil Water Sensors and Remote Sensing" ***ASA-CSSA-SSSA Annual Meeting**,* San Antonio, Texas, USA. November 2019 (Presenter, Neil Hansen).

"Spatial Analysis of Mycotoxins in Stored Grain to develop more Precise Management Strategies." ***ECPA 2019***, Montpellier, France. July 2019.

"Modelling spatiotemporal variations in crop water stress for variable-rate irrigation." ***ECPA 2019***, Montpellier, France, July 2019.

"Could climate change drive alterations in soil structure and hydraulic properties within anthropogenically-relevant timescales?" ***EGU 2019,*** Vienna, Austria, April 2019. (Presenter, A. Nemes)

"3D LISA: A Flexible Program for Calculating the Local Moran's I in 1, 2 or 3D Illustrated with Examples from Soil Science" ***Geocomputation 2017***, Leeds, UK, September 2017.

Academic Service:
Editorial Board Member
Precision Agriculture Journal

Scientific Committee Member
Pedometrics 2017, Wageningen, Netherlands
9th, 10th, 11th and 12th ECPA, Spain, Israel, UK and France

Society Memberships: Association of American Geographers (AAG), British Society of Soil Science (BSSS), International Association for Mathematical Geology (IAMG), International Society of Precision Agriculture (ISPA), Royal Geographical Society (RGS), Soil Science Society of America (SSSA).