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Introduction

Mario Miranda is Professor of Agricultural, Environmental and Development Economics at The Ohio State University and Fellow of the Agricultural and Applied Economics Association. His research has focused on the modeling of stochastic dynamical systems in economics with application to international economic development, agricultural finance and insurance, agricultural and environmental policy, food security, international trade, commodity pricing and industrial organization. His research has produced one book, which has been adopted for courses offered by seven of the top ten ranked doctoral programs in Economics in the world and over 70 peer-reviewed articles, two of which are among the three most frequently cited articles on “agricultural insurance”. He has advised twenty-eight doctoral students to completion, including four winners and honorable mention recipients of the Applied and Agricultural Economics Association Outstanding Doctoral Dissertation Award.

Professor Miranda served seven years as Director of Graduate Programs in the Department of Agricultural, Environmental, and Development Economics at The Ohio State University, ranked by the National Research Council as the leading program in its field in the USA. Miranda has served as an Associate Editor of the Journal of Economic Dynamics and Control, the American Journal of Agricultural Economics and Computational Economics. He has also served as a consultant to the World Bank, U.S. Agency for International Development, the Food and Agriculture Organization of the United Nations, the International Food Policy Research Institute, the U.S. National Aeronautics and Space Administration, the Chicago Board of Trade, the U.S. Department of Agriculture, the International Water Management Institute, and numerous private corporations. He has made over 170 presentations to professional and academic audiences and has worked on major research projects or taught courses in Bolivia, China, Colombia, Costa Rica, Ghana, Honduras, Mexico, Morocco, Nicaragua, Peru, South Africa and Tanzania.

Education

- Ph.D. Economics & Industrial Engineering, University of Wisconsin-Madison, 1985
- M.S. Economics, University of Wisconsin - Madison, 1984
- B.A. Mathematics, College of Wooster, 1976

Employment

- Professor, Department of Agricultural, Environmental & Development Economics, The Ohio State University, 1998-Present.
- Visiting Research Scholar, Development Research Group, World Bank, 2012.
- Assistant/Associate Professor, Department of Agricultural, Environmental & Development Economics, The Ohio State University, 1988-1998.
- Assistant Professor, School of Business Administration, University of Connecticut, 1986-1988.
- Post-Doctoral Fellow, Mathematics Research Center, University of Wisconsin-Madison, 1985-1986.

Editorial Service

- Associate Editor, Journal of Economic Dynamics and Control, 2000-2016.
- Associate Editor, American Journal of Agricultural Economics, 1996-2001.
- Associate Editor, Computational Economics, 1998-present.

Honors

- Fellow of the Agricultural and Applied Economics Association, elected 2017.
- Andersons Professor of Agricultural Finance and Risk Management, The Ohio State University, 2006-2013.
- Outstanding Teaching Award, College of Food, Agricultural & Environmental Sciences, The Ohio State University, 2001.
- Outstanding Research Award, Ohio Agricultural Research & Development Center, 1999.
- Rodney F. Plimpton Outstanding Teacher Award, College of Food, Agricultural and Environmental Sciences, The Ohio State University, 1998.
- Gamma Sigma Delta Research Award of Merit, The Ohio State University, 1997.
- Harold O. Wilson Prize in Mathematics, The College of Wooster, 1976.

Book

- Miranda, Mario J. and Paul L. Fackler. 2002. *Applied Computational Economics and Finance*. Cambridge, MA: MIT Press.

Articles Published in Peer Reviewed Journals

- Dougherty, John P., Jon Einar Flatnes, Richard A. Gallenstein, Mario J. Miranda and Abdoul G. Sam. 2020. "Climate Change and Index Insurance Demand: Evidence from a Framed Field Experiment in Tanzania." *Journal of Economic Behavior and Organization*. In press.

- Chaudhry, Muhammad Imran and Mario J. Miranda. 2019. "Price Transmission in Pakistan's Poultry Supply Chain." *Journal of Agricultural and Resource Economics*. In press.
- Kemeze, Francis H., John K. M. Kuwornu, Mario J. Miranda and Henry Amin-Somuah. 2020. "Smallholder Farmer's Risk Attitudes in Northern Ghana: Experimental Evidence." *Journal of Development Studies*. In press.
- Yen, Meng-Fen, Mario J. Miranda and Ani Katchova. 2020. "The Effects of Capital Constraints on the Growth of Agricultural Cooperatives." *Agricultural Economics* 66(1):27-33.
- Yen, Meng-Fen, Ruohan Wu and Mario J. Miranda. 2019. "A General Equilibrium Model of Bilateral Trade with Strategic Public Investment in Commercial Infrastructure." *The Journal of International Trade and Economic Development* 28(6):712-731.
- Miranda, Mario J., Francis M. Mulangu and Francis H. Kemeze. 2019. "Warehouse Receipt Financing for Smallholders in Developing Countries: Challenges and Limitations." *Agricultural Economics* 50(5):629-641.
- Liu, Xianglin, Yingmei Tang, Jihong Ge and Mario J. Miranda. 2019. "Does Past Experience in Natural Disasters Affect Willingness-to-Pay for Weather Index Insurance? Evidence from China." *International Journal of Disaster Risk Reduction* 33(February):33-43.
- Gallenstein, Richard A., Khushbu K. Mishra, Abdoul G. Sam, and Mario J. Miranda. 2019. "Willingness to Pay for Insured Loans in Northern Ghana." *Journal of Agricultural Economics* 70(3):640-672.
- Chaudhry, Muhammad Imran and Mario J. Miranda. 2018. "Complex Price Dynamics in Vertically Linked Cobweb Markets." *Economic Modelling* 72(C):363-378.
- Mulangu, Francis M., Mario J. Miranda and Eugenie W.H. Maiga. 2017. "Cocoa Pricing Options and Their Implications for Poverty and Industrialization in Ghana." *Agricultural Economics* 48(4):481-490.
- Farrin, Katie and Mario J. Miranda. 2015. "A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption." *Journal of Development Economics* 116(5):199-211.
- Wu, Ruohan and Mario J. Miranda. 2015. "Exports, Innovation and Production Growth: A Dynamic Heterogeneous Firm Model with Learning and Entry Costs." *The Journal of International Trade and Economic Development* 24(8):1037-1053.
- Guizar, Isaí, Claudio González-Vega and Mario J. Miranda. 2015. "Un Análisis Numérico de Inclusión Financiera y Pobreza." *EconoQuantum* 12(2):7-24.
- Miranda, Mario J. and Katie Farrin. 2012. "Index Insurance for Developing Countries." *Applied Economic Perspectives and Policy* 34(3):391-427.
- Miranda, Mario J. and Claudio Gonzalez-Vega. 2011. "Systemic Risk, Index Insurance and Optimal Management of Agricultural Loan Portfolios in Developing Countries." *American Journal of Agricultural Economics* 93(2):399-406.
- Nadolnyak, Denis, Mario J. Miranda and Ian M. Sheldon. 2010. "Genetically Modified Crops as Real Options: Identifying Regional and Country-Specific Differences." *International Journal of Industrial Organization* 29(4):455-463.

- Makaudze, Ephias M. and Mario J. Miranda. 2010. "Catastrophic Drought Insurance Based on Remotely Sensed Normalized Difference Vegetation Index for Smallholder Farmers in Zimbabwe." *Agrekon* 49(1):418–432.
- Daigneault, Adam J., Mario J. Miranda and Brent Sohngen. 2010. "Optimal Forest Management with Carbon Sequestration Credits and Endogenous Fire Risk." *Land Economics* 86(1):155–172.
- Chen, Shu-Ling and Mario J. Miranda. 2008. "Modeling Texas Dryland Cotton Yields, with Application to Crop Insurance Actuarial Rating." *Journal of Agricultural and Applied Economics* 40(1):239–252.
- Khalil, Abedalrazq F., Hyun-Han Kwon, Upmanu Lall, Mario J. Miranda and Jerry R. Skees. 2007. "El Niño-Southern Oscillation-Based Index Insurance for Floods: Statistical Risk Analyses and Application to Peru." *Water Resources Research* 43(10):W10416.
- Vedenov, Dmitry V., Mario J. Miranda, Robert Dismukes and Joseph W. Glauber. 2006. "Portfolio Allocation and Alternative Structures of the Standard Reinsurance Agreement." *Journal of Agricultural and Resource Economics* 31(1):57–73.
- Katchova, Ani L., Mario J. Miranda and Claudio Gonzalez-Vega. 2006. "A Dynamic Model of Individual and Group Lending in Developing Countries." *Agricultural Finance Review* 66(2):251–265.
- Katchova, Ani L., Ian M. Sheldon and Mario J. Miranda. 2005. "A Dynamic Model of Oligopsony and Oligopoly in the Potato Processing Industry." *Agribusiness: An International Journal* 21(3):409–428.
- Miranda, Mario J. 2005. "Teaching Computational Economics in an Applied Economics Program." *Computational Economics* 25(3):229–254.
- Vedenov, Dmitry V., Mario J. Miranda, Robert Dismukes and Joseph W. Glauber. 2004. "Economic Analysis of Standard Reinsurance Agreement." *Agricultural Finance Review* 64(2):119–134.
- Katchova, Ani L. and Mario J. Miranda. 2004. "Two-Step Econometric Estimation of Farm Characteristics Affecting Marketing Contracts Decisions." *American Journal of Agricultural Economics* 86(1):88–102.
- Miranda, Mario J. and Dmitry V. Vedenov. 2001. "Innovations in Agricultural and Natural Disaster Insurance." *American Journal of Agricultural Economics* 83(3):650–655.
- Vedenov, Dmitry V. and Mario J. Miranda. 2001. "Numerical Solution of Dynamic Oligopoly Games with Capital Investment." *Economic Theory* 18(1):237–261.
- Makki, Shiva S., Luther G. Tweeten and Mario J. Miranda. 2001. "Storage-Trade Interactions under Uncertainty: Implications for Food Security." *Journal of Policy Modeling* 23(2):127–140.
- Skees, Jerry R., Peter B.R. Hazell and Mario J. Miranda. 2000. "Nuovi Approcci per le Assicurazioni in Agricoltura nei Paesi in via di Sviluppo." *Rivista di Economia Agraria* 43(1/2):31–52.
- Miranda, Mario J. 1998. "Numerical Strategies for Solving the Nonlinear Rational Expectations Commodity Market Model." *Computational Economics* 11(1/2):71–87.

- Miranda, Mario J. and Xiongwen Rui. 1997. "Maximum Likelihood Estimation of the Nonlinear Rational Expectations Asset Pricing Models." *Journal of Economic Dynamics and Control* 21(8-9):1493–1510.
- Miranda, Mario J. and Joseph W. Glauber. 1997. "Systemic Risk, Reinsurance and the Failure of Crop Insurance Markets." *American Journal of Agricultural Economics* 79(1):206–215.
- Makki, Shiva S., Luther G. Tweeten and Mario J. Miranda. 1996. "Wheat Storage and Trade in an Efficient Global Market." *American Journal of Agricultural Economics* 78(4):879–90.
- Yavus, Fahri, Carl Zulauf, Gary D. Schnitkey and Mario J. Miranda. 1996. "A Spatial Equilibrium Analysis of Regional Structural Change in the U.S. Dairy Industry." *Review of Agricultural Economics* 18(4):693–703.
- Rui, Xiongwen and Mario J. Miranda. 1996. "Solving Nonlinear Dynamic Games via Orthogonal Collocation: An Application International Commodity Markets." *Annals of Operations Research* 68(1-4):89–108.
- Miranda, Mario J. and Joseph W. Glauber. 1995. "Solving Stochastic Models of Competitive Trade and Storage by Chebychev Collocation Methods." *Agricultural and Resource Economics Review* 24(1):70–77.
- Miranda, Mario J. and Gary D. Schnitkey. 1995. "An Empirical Model of Asset Replacement in Dairy Production." *Journal of Applied Econometrics* 10(S):S41–S55.
- Sun, Theresa Y., Mario J. Miranda and C.S. Kim. 1994. "Commodity Market Dynamics under Rational Expectations and Government Price Support Program." *Journal of Economics* 20(1).
- Miranda, Mario J., Frank Novak and Mel Lerohl. 1994. "Acreage Response under Canada's Western Grains Stabilization Program." *American Journal of Agricultural Economics* 76(2):270–76.
- Coltman, Russell T., Gary D. Schnitkey and Mario J. Miranda. 1994. "Scheduling Efficiencies of Farm-to-Plant Milk Collection in Western Ohio." *Agribusiness: An International Journal* 10(2):179–191.
- Miranda, Mario J. and Joseph W. Glauber. 1993a. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding." *Review of Economics and Statistics* 75(3):463–70.
- Schnitkey, Gary D. and Mario J. Miranda. 1993. "The Impact of Pollution Controls on Livestock-Crop Producers." *Journal of Agricultural and Resource Economics* 18(1):25–36.
- Miranda, Mario J. and Joseph W. Glauber. 1993b. "Intraseasonal Demand for Fall Potatoes under Rational Expectations." *American Journal of Agricultural Economics* 75(1):104–112.
- Miranda, Mario J. and Joseph W. Glauber. 1991. "Providing Crop Disaster Assistance through a Modified Deficiency Payment Program." *American Journal of Agricultural Economics* 73(4):1233–1243.
- Miranda, Mario J. 1991. "Area-Yield Crop Insurance Reconsidered." *American Journal of Agricultural Economics* 73(2):233–242.

- Miranda, Mario J. and Joseph W. Glauber. 1990. "The Effects of Price Supports on the Valuation of Options on Agricultural Futures Markets." *Review of Futures Markets* 9(1):108–125.
- Glauber, Joseph W., Peter G. Helmberger and Mario J. Miranda. 1989. "Four Approaches to Commodity Market Stabilization: A Comparative Analysis." *American Journal of Agricultural Economics* 71(2):326–337.
- Miranda, Mario J. and Peter G. Helmberger. 1988. "The Effects of Commodity Price Stabilization Programs." *American Economic Review* 78(1):46–58.
- Lowry, Mark N., Joseph W. Glauber, Mario J. Miranda and Peter G. Helmberger. 1987. "Pricing and Storage of Field Crops: A Quarterly Model with Application to Soybeans." *American Journal of Agricultural Economics* 69(4):740–749.

Revised Manuscripts in Second Review at Peer Reviewed Journals

- Mishra, Khushbu K., Abdoul G. Sam, Gracious M. Diiro and Mario J. Miranda. 2019. "Gender and Dynamics of Technology of Adoption: Empirical Evidence from Uganda." *Agricultural Economics*.
- Mishra, Khushbu K., Richard A. Gallenstein, Mario J. Miranda, Abdoul G. Sam, Patricia Toledo and Francis M. Mulangu. 2019. "Insured Loans and Credit Access: Evidence from a Randomized Field Experiment in Northern Ghana." *American Journal of Agricultural Economics*.

Manuscripts in Initial Review at Peer Reviewed Journals

- Ife, Victor, Djiby Racine Thiam, Opeyemi Ayinde, Edwin Muchapondwa and Mario J. Miranda. 2019. "Index-Based Livestock Insurance (IBLI) in a Developing Country Context: New Insights for Public Policy in Nigeria." *Environmental Science and Policy*.
- Figueroa, Cristian, Rodrigo Harrison, Roger Lagunoff and Mario J. Miranda. 2019. "Carbon Consumption, the Carbon-Based Ecosystem and Output". *The Quarterly Journal of Economics*.
- Tang, Yingmei, Huifang Cai, Jiansheng Chen, Mario J. Miranda and Rongmao Liu. 2019. "The Impact of Weather Index Insurance on Credit Default Rates of Farmers under Group lending: Evidence from a Framed Field Experiment." *Development Policy Review*.
- Wu, Ruohan, Meng-Fen Yen and Mario J. Miranda. 2019. "The Wage Premium and Market Structure." *International Journal of Industrial Organization*.
- Wu, Ruohan and Mario J. Miranda. 2019. "Dynamic Impacts of Intermittent Trade Conflicts on Chinese Manufacturers." *The World Economy*.

Recent Working Papers and Manuscripts in Preparation

- Bangwan, Sureewan and Mario J. Miranda. 2019. "Catastrophic Risk, Weather Index Insurance and Joint-Collateral Group Credit: The Case of the Thailand National Village Fund Program." Department of Agricultural, Environmental & Development Economics, The Ohio State University.

- Guizar-Mateos, Isai and Mario J. Miranda. 2020. "Financial Access and Poverty Trap Dynamics over the Life Cycle." *Journal of Agricultural Economics*.
- Chaudhry, Muhammad Imran and Mario J. Miranda. 2019. "Structural Determinants of the Low Adoption Rate of Artificial Insemination among Livestock Farmers in Pakistan." Lahore University of Management Sciences, Pakistan.
- Chaudhry, Muhammad Imran and Mario J. Miranda. 2017. "When More is Less: Suboptimal Equilibrium in Microcredit Markets in Less Developed Countries." Working Paper, Lahore University of Management Sciences, Pakistan.
- Chen, Jian and Mario J. Miranda. "Sustainability and Performance of Joint Liability Group Credit Contracts in the Presence of Systemic Risk: A Dynamic Game Framework." 2016. Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Gallenstein, Richard A., Jon Einar Flatnes, John P. Dougherty, Mario J. Miranda, and Abdoul G. Sam. 2019. "What a Shame! The Impact of Shame on Risk Taking Under Joint Liability Lending."
- Glauber, Joseph W. and Mario J. Miranda. 2019. "Asynchronous North-South Hemisphere Production and Global Agricultural Commodity Markets." International Food Policy Research Institute, Washington, DC.
- Kemeze, Francis H., John K. M. Kuwornu, Mario J. Miranda and Henry Amin-Somuah. 2017. "Drought Experience, Risk Preferences and Adoption of Improved Production Technologies among Smallholder Farmers in Ghana." Working Paper, Department of Agricultural Economics and Agribusiness, University of Ghana – Legon.
- Kemeze, Francis H., Mario J. Miranda, John K. M. Kuwornu and Henry Amin-Somuah. 2017. "Optimal Management of Runoff Reservoir Supply: The Case of Tono Reservoir in Northern Ghana." Working Paper, Department of Agricultural Economics and Agribusiness, University of Ghana – Legon.
- Miranda, Mario J. and Joseph W. Glauber. 2019. "Effects and Welfare Benefits of Public Agricultural Commodity Market Information." Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Miranda, Mario J. and Katie Farrin. 2017. "Effective Risk Aversion and the Demand for Savings and Insurance." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Miranda, Mario J., Donald F. Larson, Francis M. Mulangu and Katie Farrin. 2017. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Mishra, Khushbu K., Richard A. Gallenstein, Abdoul G. Sam, Mario J. Miranda, Patricia Toledo, and Francis M. Mulangu. 2019. "Do Index-Insured Loans Spur Technology Adoption? Evidence from a Randomized Control Trial in Northern Ghana." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Romero-Aguilar, Randall and Mario J. Miranda. 2018. "Food Security for Whom? The Effectiveness of Food Reserves in Poor Developing Countries." Working Paper,

Department of Agricultural, Environmental & Development Economics, The Ohio State University.

- Romero-Aguilar, Randall, Mario J. Miranda and Joseph W. Glauber. 2017. "Sustainability of Regional Food Reserves When Default Is Possible." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Xu, Chang and Mario J. Miranda. 2018. "Informal Risk-Sharing, Systemic Risk and Index Insurance." Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Zhang, Yu and Mario J. Miranda. 2019. "Childbearing and Saving Decisions with Incomplete Financial Markets and Sex Selection." Department of Agricultural, Environmental & Development Economics, The Ohio State University.

Workshops and Short-Courses

- Vedenov, Dmitry V. and Mario J. Miranda. "Applied Computational Economics." One-day pre-conference workshop offered at the Annual Meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 29, 2017.
- Miranda, Mario J. and John Dougherty. "Topics in Agricultural Risk Management and Insurance." Three-day workshop offered at the Sokoine University of Agriculture, Morogoro, Tanzania, February 9-10, 2017.
- Miranda, Mario J. "Applied Computational Economics." Two-week short-course offered at the Department of Agricultural Economics, University of Pretoria, South Africa, March 7-18, 2016
- Vedenov, Dmitry V. and Mario J. Miranda. "Applied Computational Economics." One-day pre-conference workshop offered at the Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
- Miranda, Mario J. and Dmitry V. Vedenov. "Applied Computational Economics." One-day pre-conference workshop offered at the Triannual Conference of the International Association of Agricultural Economists, Milan, Italy, August 7-14, 2015.
- Miranda, Mario J. "Quantitative Methods for Agricultural and Environmental Policy Analysis." Two-week course offered at the University of Ghana – Legon Campus, Accra, Ghana, June 8-19, 2015.
- Vedenov, Dmitry V., Mario J. Miranda and Randall Romero-Aguilar. "Applied Computational Economics." One-day pre-conference workshop offered at the Annual Meeting of the Agricultural and Applied Economics Association, Minneapolis, MN, July 26, 2014.
- Miranda, Mario J. "Applied Computational Economic Dynamics." Two-week course offered at the University of Ghana – Legon Campus, Accra, Ghana, January 27 – February 7, 2014.
- Miranda, Mario J. "Applied Computational Economic Dynamics." Three-week course offered at the Renmin University of China International Summer School, Beijing, China, July 3-19, 2013.

- Miranda, Mario J. "Applied Computational Methods for Economic Dynamics." Two-week course offered to the Central Bank of Costa Rica, San Jose, Costa Rica, Dec 3-9, 2012 and April 8-12, 2013.
- Miranda, Mario J. and Dmitry V. Vedenov. "Applied Computational Economics." One-day pre-conference workshop offered at the Annual Meeting of the Agricultural and Applied Economics Association, Pittsburgh, PA, July 23, 2011.
- Miranda, Mario J. "Computational Economic and Finance." Two-week course offered at the International Summer School in Economics, University of Los Andes, Bogota, Colombia, June 15-25, 2010.
- Miranda, Mario J. "Agricultural Index Insurance and Weather Derivatives." One-day Workshop offered to the Masters in Microfinance Graduate Program, University of Bergamo, Bergamo, Italy, May 21, 2010.
- Miranda, Mario J. and Dmitry V. Vedenov. "Applied Computational Economics." One-day pre-conference workshop offered at the Annual Meetings of the Agricultural and Applied Economics Association, Milwaukee, WI, July 25, 2009.
- Miranda, Mario J. "Computational Economics and Finance." Two-week course offered at the International Summer School in Economics, University of Los Andes, Bogota, Colombia, June 23-July 7, 2009.

Computer Application Software

- Miranda, Mario J. and Paul W. Fackler. "CompEcon: A Matlab Toolbox for Analysis of Computational Economic and Financial Models." 1994-2019.
- Miranda, Mario J., Dmitry V. Vedenov, Joseph Glauber and Robert Dismukes. "SRA-Sim: A Stochastic Dynamic Simulation Model for the Analysis of the U.S. Standard Reinsurance Agreement." 1997-2002.
- Miranda, Mario J., Dmitry V. Vedenov, Gary Schnitkey and Scott H. Irwin. "AgRisk: Decision Support for Agricultural Risk Management." 1996-2002.
- Miranda, Mario J. and Joseph W. Glauber. "ComSim: A Suite of Stochastic Simulation Programs for the Analysis of Agricultural Policies under Production and Price Uncertainty." 1988-1995.
- Miranda, Mario J. "Y-Opt: A User-Friendly Program to Price Chicago Board of Trade Corn Reinsurance Options." 1994.

Book Chapters

- Glauber, Joseph W. and Mario J. Miranda. 2016. "The Effects of Southern Hemisphere Crop Production on Trade, Stocks and Price Integration." In *Food Price Volatility and its Implications for Food Security and Policy*, Matthias Kalkuhl, Joachim von Braun and Maximo Torero, eds. Springer-Verlag.
- Miranda, Mario J. and Francis M. Mulangu. 2016. "Index Insurance for Agricultural Transformation in Africa" in *African Center for Economic Transformation Biennial Report 2016: Transforming Africa's Agriculture*. African Center for Economic Transformation, Accra, Ghana.

- Hopkins, Jeffrey W., Gary D. Schnitkey, Mario J. Miranda, Brent G. Sohngen and Luther G. Tweeten. 2003. "Farmer's Incentives to Conserve Soil Resources: A Dynamic Model Applied to the North-Central United States." In *Land Quality, Agricultural Productivity and Food Security: Biophysical Processes and Economic Choices at Local, Regional and Global Levels*. Edited by Keith Daniel Wiege. Northampton, MA: Edward Elgar.
- Schreiner, Mark, Douglas H. Graham and Mario J. Miranda. 1997. "Choices by Poor Households When the Interest Rate for Deposits Differs From the Interest Rate for Loans." In *Food Security, Diversification and Resource Management: Refocusing the Role of Agriculture? Proceedings of the Twenty-third International Conference of Agriculture Economists*, edited by G. H. Peters and Joachim Von Braun. Farnham Surrey, United Kingdom: Ashgate.
- Glauber, Joseph W. and Mario J. Miranda. 1995. "Area-Yield Reinsurance." In *Crop Insurance and the 1995 Farm Bill*. Edited by Jerry Skees and Barry Barnett. Boulder, CO: Westview Press.
- Miranda, Mario J. 1995. "Maximum Likelihood Estimation of Nonlinear Rational Expectations Models by Orthogonal Polynomial Projection Methods." In *Advances in Computational Economics, Volume 5*. Edited by Manfred Gilli. Norwell, MA: Kluwer Academic Publishers.
- Glauber, Joseph W. and Mario J. Miranda. 1994. "Providing Catastrophic Yield Protection through a Target Revenue Program." In *Economics of Agricultural Crop Insurance: Theory and Evidence*. Edited by Darrell L. Hueth and William H. Furtan. Boston, MA: Kluwer Academic Publishers.

Doctoral Dissertations Supervised

- Chen, Jian. 2019. *Systemic Risk and the Sustainability of Joint Liability Group Lending*.
- Bangwan, Sureewan. 2018. *The Effects of Catastrophic Risk on the Performance of the Thailand National Village and Urban Community Fund Program and Prospects for Managing it Through the Use of Weather Index Insurance*.
- Dougherty, John P. 2018. *Three Essays on the Economic Sustainability of Drought Insurance and Soil Investment for Smallholder Farmers in the Developing World*.
- Xu, Chang. 2018. *Index Insurance, Informal Risk Sharing Groups and Moral Hazard*.
- Zhang, Yu. 2018. *Three Essays on Households Life-Cycle Investment Decisions*.
- Gallenstein, Richard T. (Tony). 2017. *Three Essays on Agricultural Microfinance and Risk Management*.
- Li, Yiting. 2017. *Three Essays on Risk Coping and Risk Management in Developing Countries*.
- Mishra, Khushbu K. 2017. *Three Essays on Gender and Development Economics: Pathways to Close Gender-Related Economic Gaps in Developing Agrarian Economies in Areas of Asset, Risk, and Credit Constraints*. (Co-Advisor).
- Yen, Meng-Fen (Nichole). 2017. *Three Essays on International Trade, Market Structure, and Agricultural Cooperatives*.

- Chaudhry, Muhammad Imran. 2016. *Essays on Agricultural and Financial Markets in Pakistan*. Honorable Mention, Agricultural and Applied Economics Association Outstanding Doctoral Dissertation Award 2017.
- Jun, Min Su. 2016. *Three Essays on Complex Contractual Networks of Farmers*.
- Kemeze, Francis H. 2016. *Drought Risk Management Using Index Insurance and Supplemental Irrigation among Smallholder Farmers in Northern Ghana*. (Co-Advisor).
- Liu, Xianglin. 2016. *Three Essays in Agricultural Insurance*.
- Romero-Aguilar, Randall S. 2015. *Essays on the World Food Crisis: A Quantitative Economics Assessment of Policy Options*.
- Collier, Benjamin L. 2013. *Financial Inclusion and Natural Disasters*. (Co-Advisor). Recipient, Agricultural and Applied Economics Association Outstanding Doctoral Dissertation Award 2014.
- Farrin, Kathleen M. 2013. *Escape from Poverty Traps: Three Essays on the Effects of Policy Intervention on Agricultural Productivity and Welfare among the Rural Poor*.
- Guizar-Mateos, Isai. 2013. *Financial Development, the Dynamics of Technology Choices, and Poverty Traps*.
- Wu, Ruohan. 2013. *Essays on Dynamics of Exports, Innovation and Productivity*. (Co-Advisor).
- Ali, Asif. 2012. *Financial Policies and Income and Wealth Inequality: A Kuznetsian Story of Financial Deepening and Human Capital Accumulation*. (Co-Advisor).
- Wang, Hui. 2012. *An Investigation of Strategic Behavior in Consumer Default*. (Co-Advisor).
- Svarch, Malena. 2011. *A Heterogeneous Household Model of Consumption Smoothing with Imperfect Capital Markets and Income Risk-Sharing*.
- Liu, Pu. 2010. *Dependence Structure in Agricultural Index Insurance Design and Product Development*.
- Chen, Yong. 2009. *Three Essays on the Interactions between Regional Development and Natural Amenities*.
- Chen, Shu-Ling. 2007. *Three Essays on Agricultural and Catastrophic Risk Management*.
- Foroutan, Pirouz V. 2003. *Agent-Based Modeling of Raccoon Rabies Epidemic and Its Economic Consequences*.
- Katchova, Ani L. 2001. *Three Essays on Agricultural Decisionmaking*.
- Vedenov, Dmitry V. 2001. *Essays in Agricultural Finance and Risk Management*. Honorable Mention, American Agricultural Economics Association Outstanding Doctoral Dissertation Award 2002.
- Rui, Xiongwen. 1995. *Essays on the Solution, Estimation, and Analysis of Dynamic Nonlinear Economic Models*. Recipient, American Agricultural Economics Association Outstanding Doctoral Dissertation Award 1996.

Research Bulletins and Monographs

- Miranda, Mario J., Abdoul G. Sam, Francis Mulangu, Khushbu Mishra, Richard Gallenstein and Patricia Toledo. 2017. "Insured Loans Increase Credit Access and

- Farming Technology Adoption in Ghana.” Feed the Future Innovation Lab for Assets and Market Access Policy Brief 2017-04.
- Mario J. Miranda, Francis M. Mulangu, Francis H. Kemeze and Shashi Kolavalli. Forthcoming 2018. “Does Warehouse Receipt Financing Benefit Ghanaian Smallholders?” International Food Policy Research Institute Ghana Strategy Support Program Policy Note 13.
 - Farrin, Katie, Mario J. Miranda and Erik O’Donoghue. 2016. *How do Time and Money Affect Agricultural Insurance Uptake? A New Approach to Farm Risk Management Analysis*. U.S. Department of Agriculture Economic Research Service, Economic Research Report Number 212.
 - Miranda, Mario J. 2008. *Lecture Notes in Financial Economics and Risk Management*, Department of Agricultural, Environmental and Development Economics, The Ohio State University.
 - Tanner, Mariah D., Luther G. Tweeten, Mario J. Miranda and Brent Sohngen. 2004. Estimaciones de Costo e Implicancias de la Captura de Carbono en Suelos Agrícolas en Ohio. *Gestion Agroalimentaria Newsletter* No. 9.
 - Miranda, Mario J. and Rodolfo Quirós. 2003. *Seguros de Índice para la Agricultura Boliviana*, SOW-016/03, Development Alternatives, Inc., Proyecto SEFIR, USAID/Bolivia.
 - Harwood, Joy, Keith Coble, Joseph W. Glauber, Mario J. Miranda, Mike Price, Agapi Somwaru and Paul Wescott. 1995. *Revenue Insurance: An Analysis of Selected Options*. U.S. Department of Agriculture Technical Bulletin.
 - Heifner Richard G., Joseph W. Glauber, Mario J. Miranda, Gerald E. Plato and Bruce H. Wright. 1990. *Futures, Options and Farm Programs: Report to Congress on a Study Mandated by the Food Security Act of 1985*. U.S. Department of Agriculture Economic Research Service Staff Report No. AGES 90-03.
 - Glauber, Joseph W., Joy L. Harwood and Mario J. Miranda. 1989. *Federal Crop Insurance in the 1990 Farm Bill: An Assessment of Program Options*. U.S. Department of Agriculture Economic Research Service Staff Report No. AGES 89-45.
 - Glauber, Joseph W. and Mario J. Miranda. 1989. *Subsidized Put Options as Alternatives to Price Supports*. U.S. Department of Agriculture Economic Research Service Technical Bulletin 1773.
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Invited Paper Presentations

- Miranda, Mario J. "Certification of Index Insurance Proposals in Sub-Saharan Africa." Presented at the US Agency for International Development Conference on Quality Standards for Index Insurance. London, England, March 8, 2019.
- Miranda, Mario J. "Warehouse Receipt Financing for Smallholders in Developing Countries: Long on Imagination, Short on Logic." Presented at the International Food Policy Research Institute, Accra, Ghana, May 26, 2017.
- Miranda, Mario J. "Index Insurance in Africa: Problems and Prospects." Presented at the Alliance for a Green Revolution in Africa, Accra, Ghana, May 19, 2017.
- Miranda, Mario J. "Warehouse Receipt Financing for Smallholders in Developing Countries: Long on Imagination, Short on Logic." Presented at the University of Kansas, Manhattan, KS, April 28, 2017.
- Miranda, Mario J. and Jon Einar Flatnes. "Promoting Technical Transformation and Financial Inclusion among Smallholder Farmers in Africa." The Ohio State University, Center for African Studies, April 12, 2017
- Miranda, Mario J. "Aplicaciones Innovadoras de Seguros Agropecuarios a Base de Indexados Para Promover el Crédito Agrícola en los Pequeños Productores."

Presented at the International Seminar on Catastrophic Agricultural Insurance for Development Banks, Association of Latin American Development Banks (ALIDE), November 4, 2015.

- Miranda, Mario J. "Agricultural Index Insurance - Lessons Learned and Ways Forward." Presented at Food and Agriculture Organization of The United Nations, Rome, Italy, August 3, 2015.
- Miranda, Mario J., Francis Mulangu and Kathleen M. Farrin. "Agricultural Index Insurance and Credit in Africa: Lessons Learned and Ways Forward." Presented at the Climate Change and Multi-Dimensional Sustainability in African Agriculture, Sokoine University of Agriculture, Morogoro, Tanzania, June 3-5, 2015.
- Miranda, Mario J. and Kathleen M. Farrin. "A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption." Presented at the Annual Meetings of Allied Social Science Associations, Boston, MA, January 5, 2015.
- Miranda, Mario J. and Randall Romero-Aguilar. "CompEcon: Open Source Software for Dynamic Economic Modelling." Presented at the International Monetary Fund Workshop on Building Tools for Heterogeneous Agents Modeling, Washington DC, December 4, 2014.
- Miranda, Mario J., Joseph W. Glauber and Randall Romero-Aguilar. "Effects of Trends in Chinese Production, Consumption and Price Support Policies on World Grain Price Volatility and Food Security." Presented at the World Bank Conference on Managing Food Price Volatility and Agricultural Trade Policy, Washington, DC, September 19, 2014.
- Miranda, Mario J. "Using Weather Index Insurance to Promote the Efficiency of Agricultural Credit Markets in Developing Countries." Sokoine University of Agriculture, Morogoro, Tanzania, August 4, 2014.
- Miranda, Mario J. "Coupled Credit and Index Insurance Contracts and Farm Technology Adoption." AFRACA International Fin4Ag Conference on Revolutionizing Finance for Agrivalue Chains, Nairobi, Kenya, July 16, 2014.
- Romero-Aguilar, Randall and Mario J. Miranda. "Drivers of World Grain markets in the Short and Long run." Presented at the 2nd International ZEF-IFPRI Workshop on Food Price Volatility and Food Security, Bonn, Germany, July 8, 2014.
- Glauber, Joseph W. and Mario J. Miranda. "Effects of Southern Hemisphere Production on Stocks, Trade and Prices." Presented at the 2nd International ZEF-IFPRI Workshop on Food Price Volatility and Food Security, Bonn, Germany, July 8, 2014.
- Miranda, Mario J. and Kathleen M. Farrin. "Coupled Credit and Index Insurance Contracts and Technical Transformation in Developing Countries: A Structural Dynamic Heterogeneous Agent Modelling Approach." Presented to the Department of Agricultural and Applied Economics, University of Georgia, Athens, Georgia, August 14, 2013.
- Miranda, Mario J. and Kathleen M. Farrin. "Effects of Index Insurance on Aggregate Agricultural Loan Defaults and Technical Transformation." Presented at

- Peking University, Beijing, China, June 21, 2013.
- East China Normal University, Shanghai, China, June 24, 2013.
- China Agricultural University, Beijing, China, June 25, 2013.
- Research Center for Rural Economy, Beijing, China, July 1, 2013.
- Central University of Finance and Economics, Beijing, China, July 3, 2013.
- Chinese Academy of Agricultural Science, Beijing, China, July 4, 2013.
- Renmin University of China, Beijing, China, July 9, 2013.
- Miranda, Mario J., Donald F. Larson and Kathleen M. Farrin. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor." Presented at the International Food Policy Research Institute - University of Bonn Conference on Food Price Volatility and Food Security, Bonn, Germany, January 31 to February 2, 2013.
- Miranda, Mario J. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor." Presented to The World Bank, Development Research Department, Washington, DC, April 19, 2012.
- Miranda, Mario J. and Kathleen M. Farrin. "Weather Index Insurance for Developing Countries." Presented to The Inter-American Development Bank, Washington, DC, June 27, 2012.
- Miranda, Mario J. "Asset Liquidity, Savings and Consumption Smoothing in a Village Economy Exposed to Systemic Income Risk", Presented at the Annual Meetings of the Agricultural and Applied Economics Association, Pittsburgh, PA, July 23, 2011.
- Miranda, Mario J. "Summary of Conference Findings", Presented at the Weather Index Insurance Workshop sponsored by the Alliance for Green Revolution in Africa, Cape Town, South Africa, Sep 18, 2010.
- Miranda, Mario J. "Summary of Conference Findings", Presented at the Designing Index Based Weather Risk Management Programs Workshop, The World Bank, Washington, DC, December 13-15, 2010.
- Miranda, Mario J. "Overview of Computational Techniques for the Analysis of Dynamic Economic Models", Presented to the Departments of Economics and Finance, University of Bergamo, Bergamo, Italy, May 17, 2010.
- Miranda, Mario J. "El-Nino Southern Oscillation Index Insurance for Peruvian Agriculture", Presented to the School of Business, Technological University of Monterrey, Guadalajara, Mexico, April 20, 2010.
- Miranda, Mario J. "Introduction to Computational Economics", Presented to the Department of Economics, University of Guadalajara, Guadalajara, Mexico, April 19, 2010.
- Miranda, Mario J. "Survey of Modern Portfolio Theory", Presented to the School of Business, Technological University of Monterrey, Guadalajara, Mexico, April 21, 2010.
- Miranda, Mario J. "Systemic Risk, Index Insurance and Agricultural Contracting in Developing Countries". Presented at the Conference on the Financing Agricultural Value Chains, San Jose, Costa Rica, January 21-23, 2010.
- Miranda, Mario J. and Claudio Gonzalez-Vega. "Index Insurance and the Optimal Management of Loan Portfolios in Rural Microfinance Institutions in the

- Presence of Systematic Risk.” Presented at the Annual Meeting of the Allied Social Science Associations, Atlanta, GA, January 1-5, 2010.
- Miranda, Mario J. “Agricultural Insurance in Developing Countries: Practitioner’s Perspectives”, Presented at the Convening on Agricultural Insurance in Developing Countries, Bill and Melinda Gates Foundation, Seattle, WA, September 21, 2009.
 - Miranda, Mario J. “Seguros Indexados para Países en Desarrollo: Aplicación al Riesgo Catastrófico El Niño” en Perú” Presented at the Universidad del Pacífico, Lima, Perú, September 4, 2009.
 - Miranda, Mario J. “Riesgo Sistémico, Índice de Seguros y Manejo Óptimo de Portafolios de Préstamos Agrícolas en Países en Desarrollo.” Presented at the Pontificia Universidad Católica del Perú, Lima, Perú, September 3, 2009.
 - Miranda, Mario J. “Riesgo Sistémico, Seguros de Índice y Manejo Óptimo de Carteras de Crédito Agropecuario en Países en Desarrollo”. Presented at the Centro de Investigación y Docencia Económicas (CIDE), México City, México, August 28, 2009.
 - Miranda, Mario J. “Index Insurance and the Optimal Management of Rural Bank and Microfinancial Institution Loan Portfolios in the Presence of Systemic Risk”, Presented at the University of Kentucky, Lexington KY, May 6, 2009.
 - Miranda, Mario J. “Index Insurance: Its Importance and Its Impediments.” Presented at The Boulder-Bergamo Forum on Access to Financial Services: Expanding the Rural Frontier, University of Bergamo, Italy, September 19, 2008.
 - Miranda, Mario J. “Index Insurance for the Management of Catastrophic Risk in Developing Countries “, at the Pontificia Universidad Católica del Perú, Lima, Peru, August 26, 2008.
 - Miranda, Mario J. “The Frontier of Computational Economics “, at the Centro de Investigación y Docencia Económicas (CIDE), Mexico City, Mexico, June 18, 2008.
 - Miranda, Mario J. “Index Insurance: Lessons from El Niño and Microfinance in Peru”, at the Centro de Investigación y Docencia Económicas (CIDE), Mexico City, Mexico, June 17, 2008.
 - Miranda, Mario J. “Recent Advances in Computational Economics”, Distinguished Faculty Lecture, Department of Agricultural, Environmental and Development Economics, The Ohio State University, May 1, 2008.
 - Miranda, Mario J. “Numerical Methods in Economics” presented at the Pontifical Catholic University of Peru, Lima, Peru, December 16, 2005.
 - Miranda, Mario J. “Savings, Borrowing and Insurance in Long-Run Risk Management”, presented to the Department of Agricultural Economics, Purdue University, West Lafayette, Indiana, April 22, 2004.
 - Miranda, Mario J. “Numerical Methods for Macroeconomic Models with Heterogeneous Agents”, presented to the Department of Economics, University of Washington, Seattle, Washington, April 2, 2004.
 - Miranda, Mario J. “Collocation Methods for Stochastic Dynamic Economic Models”, presented to the Department of Economics, Iowa State University, March 23, 2002.

- Miranda, Mario J. "Modern Approaches to the Numerical Solution of Stochastic Dynamic Economic Models", presented at the 6th International Conference in Economics, Middle Eastern Technical University, Ankara, Turkey, September 12, 2002.
- Miranda, Mario J. "Innovations in Agricultural and Natural Disaster Insurance" at the American Social Science Association Meetings in New Orleans, January 5-7, 2001.
- Miranda, Mario J and Dmitry V. Vedenov. "Numerical Solution to Dynamic Oligopoly Games with Capital Investment". Presented at Stanford Institute for Theoretical Economics Conference on Computational Economics and Economic Theory, Stanford, California, August 1-4, 2000.
- Miranda, Mario J. "Optimal Index Insurance Designs" at the Agroasemex Conference on New Directions in International Agricultural Insurance, Queretaro, Mexico, June 18-21, 2000.
- Miranda, Mario J. "Advanced Computational Economics and Finance", Short Course, Bilkent University, Ankara, Turkey, April 24-28, 2000.
- Miranda, Mario J. "Promising Practices in Rural Finance". Presented at Conference on Innovative Approaches to Crop Yield Insurance in Developing Countries, Frankfurt, Germany, San Jose, Costa Rica, December 13-15, 1999.
- Miranda, Mario J. "Coping with Risk: Are Rural Insurance Mechanisms Possible". Presented at Conference on New Development Finance, Frankfurt, Germany, September 27-October 2, 1999.
- Miranda, Mario J. "Critique of Agricultural Risk Models". Presented at the Symposium on The Farm Safety Net: What's in it for Agricultural Insurance, Annual Conference of the American Agricultural Economics Association, Nashville, Tennessee, September 27-October 2, 1999.
- Miranda, Mario J. "Computational Solution to Constrained Dynamic Games with Application to Commodity Markets". Presented at Stanford Institute for Theoretical Economics Conference on Computational Economics and Economic Theory, Stanford, California, July 4-8, 1999.
- Miranda, Mario J. "Innovations and New Approaches to Traditional Insurance Programs". Presented at World Bank Conference on Microfinance and Rural Finance: Where are We Going, Cusco, Peru, June 6-10, 1999.
- Miranda, Mario J. "The Simple Analytics of Catastrophic Risk." Presented at World Bank Roundtable on Agricultural Risk Management, Washington, DC, February 17, 1999.
- Miranda, Mario J. "Teaching Computational Economics in an Applied Economics Program." Plenary session of the Fourth Annual Meetings of the Society for Computational Economics, Stanford California, July 1997.
- Miranda, Mario J. "Frontiers of Applied Economics: Numerical Modeling in Agricultural and Resource Economics." First Annual Research Frontiers Seminar, Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.

- Miranda, Mario J. "Estimating Structural Models of Commodity Markets with Government and Private Stockholding." The University of Illinois, Champaign, Illinois, September 1994.
- Miranda, Mario J. "Agricultural Insurance and Disaster Assistance Programs: A Critique." Presented at the American Enterprise Institute Conference on the 1995 Farm Bill, Washington, DC, November 1994.
- Miranda, Mario J. and Joseph W. Glauber. "Uninsurable Systemic Risk and the Failure of Crop Insurance Markets: A Case for Area-Yield Options." Presented at the Workshop on Designing New Programs for Managing Farm Production and Price Risks in the 21st Century: The Challenge for Agricultural Economists, Annual Meeting of the American Agricultural Economics Association, San Diego, California, August 1994.
- Glauber, Joseph W. and Mario J. Miranda. "Area Yield Reinsurance." Presented at Annual Meeting of the Western Economic Association, Vancouver, Canada, July 1994.
- Miranda, Mario J. "Systemic Risk, Crop Insurance and Area-Yield Options Contracts." Board of Directors of the Chicago Board of Trade, Chicago, Illinois, July 1994.
- Miranda, Mario J. "Estimation of Nonlinear Rational Expectations Models using Polynomial Projection Methods." Conference on Computational Economics, sponsored by the International Federation of Automatic Control, Amsterdam, The Netherlands, June, 1994.
- Miranda, Mario J. "Recent Advancements in Numerical Solution Methods for Dynamic Agricultural Decision Models." Annual Meeting of the Nordic Research Project on Risk and Structural Change, Oslo, Norway, May, 1994.
- Miranda, Mario J. and Gary D. Schnitkey. "Structural Estimation of Dynamic Stochastic Discrete Choice Models in Agriculture." The University of Wisconsin, Madison, Wisconsin and Iowa State University, Ames, Iowa, March 1993; Purdue University, West Lafayette, Indiana and the University of Illinois, Champaign, Illinois, March 1994; North Carolina State University, Durham, North Carolina, April 1994.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Rational Risk Response Models for Storable Commodities." Presented at Annual Meeting of the SR-232 Conference on Applied Risk Analysis, San Antonio, Texas, March 1991.
- Glauber, Joseph W. and Mario J. Miranda. "Providing Catastrophic Yield Protection through a Modified Deficiency Payment Program." Presented at the University of Maryland - University of Saskatchewan Conference for the Improvement of Crop Insurance, Regina, Saskatchewan, April 1990.
- Miranda, Mario J. "Analysis of Rational Expectations Models for Agricultural Markets Subject to Government Intervention." Presented at The World Bank, March 1986.

Selected Paper Presentations

- Ayinde, Opeyemi Eytayo, Mario J. Miranda, and Matthew Olaniyi Adwuni. "Financial System Hazard in a Developing Country Context: Effect of Agricultural Insurance on Credit, Risk and Efficiency in Nigeria." Selected paper presentation, Sixth

- International Conference of the African Association of Agricultural Economists, Abuja, Nigeria, September 23-26, 2019.
- Chen, Jian, Jon Einar Flatnes, Richard A. Gallenstein, Mario J. Miranda and Yingmei Tang. "Group Lending without Joint Liability: Behavioral Insights from a Framed Field Experiment in Rural China." Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, Atlanta, GA, July 21-23, 2019.
 - Miranda, Mario J., Francis M. Mulangu and Francis H. Kemeze. "Warehouse Receipt Financing for Smallholders in Developing Countries: Short on Logic, Long on Imagination." Poster presentation, Annual Meeting of the Agricultural and Applied Economics Association, Atlanta, GA, July 21-23, 2019.
 - Yen, Meng-Fen and Mario J. Miranda. "A General Equilibrium Model of Bilateral Trade with Strategic Public Investment in Commercial Infrastructure." Poster presentation, Annual Meeting of the Agricultural and Applied Economics Association, Atlanta, GA, July 21-23, 2019.
 - Sant'Anna, Ana Claudia, Mario J. Miranda and Ani Katchova. "Land Values and Farm Debt Accumulation: A Dynamic Model." Poster presentation, Annual Meeting of the Agricultural and Applied Economics Association, Atlanta, GA, July 21-23, 2019.
 - Ayinde, Opeyemi E., Tahirou Abdoulaye, Mario J. Miranda, Abdoul G. Sam, and Gbadebo Olaoye. "Women's Access to Improved Seed: Does it Matter for Small-Scale Maize Farms' Productivity in Nigeria." Poster presentation, Annual Meeting of the Agricultural and Applied Economics Association, Atlanta, GA, July 21-23, 2019.
 - Mishra, Khushbu K., Richard A. Gallenstein, Abdoul G. Sam and Mario J. Miranda. "Does Willingness to Pay for Insured Loans Differ Between Male and Female Farmers? Evidence from Ghana." Selected paper, Annual Meeting of the Southern Economics Association, Washington, DC, November 18-20, 2018.
 - Mishra, Khushbu K., Richard A. Gallenstein, Abdoul G. Sam and Mario J. Miranda. "The Impact of Index-Insured Loans on Technology Adoption in Northern Ghana." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 5-7, 2018.
 - Aina, Ifedotun, Opeyemi Eyitayo Ayinde, Djiby Thiam and Mario J. Miranda. "Willingness to Pay for Index-Based Livestock Insurance: Perspectives from West Africa." Selected paper, Triennial Conference of the International Association of Agricultural Economists, Vancouver, Canada, July 28 – August 2, 2018.
 - Mishra, Khushbu K., Richard A. Gallenstein, Mario J. Miranda, Francis M. Mulangu, Abdoul G. Sam and Patricia T. Toledo. "You are Approved! Insured Loans Increase Credit Access and Technology Adoption of Ghanaian Farmers." Selected paper, Second International Conference on Globalization and Development, Göttingen, Germany, May 3-4, 2018.
 - Mishra, Khushbu K., Abdoul G. Sam, Richard A. Gallenstein, Mario J. Miranda and Patricia T. Toledo. "You are Approved! Insured Loans Increase Credit Access and Technology Adoption of Ghanaian Farmers." Selected paper, Annual Meeting of the Southern Economic Association, Tampa, FL, November 17-19, 2017.

- Dougherty, John, Jon Einar Flatnes, Richard A. Gallenstein, Mario J. Miranda and Abdoul G. Sam. "Investigating the Impacts of Climate Change on the Demand for Index Insurance." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 29 - August 1, 2017.
- Gallenstein, Richard A., Jon Einar Flatnes, Mario J. Miranda, John Dougherty and Abdoul G. Sam. "The Interaction of Index Insurance and Joint Liability in Insured Loans" Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 29 - August 1, 2017.
- Mishra, Khushbu K., Richard A. Gallenstein, Mario J. Miranda and Abdoul G. Sam. "Gender and Willingness to Pay for Insured Loans: Empirical Evidence from Ghana." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 29 - August 1, 2017.
- Zhang, Yu and Mario J. Miranda. "A Life Cycle Model of Childbearing and Saving Decisions with Incomplete Financial Markets and Sex Selection." Selected poster, Annual Meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 29 - August 1, 2017.
- Guizar-Mateos, Isai, Mario J. Miranda and Abdoul Sam. "Theory and Empirics of Formal Savings, Adoption of Non-Divisible Production Technologies and Agricultural Income Growth." Selected paper, Fifth International Agricultural Risk, Finance and Insurance Conference, Paris, France, June 7-9, 2017.
- Chen, Jian and Mario J. Miranda. "Joint Liability Group Credit Linked with Index Insurance: A Dynamic Game Framework." Selected poster, Annual Meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 29 - August 1, 2017.
- Chen, Jian and Mario J. Miranda. "Performance of Joint Liability Group Credit in the Presence of Systemic Risk: A Dynamic Game Framework." Selected paper, Annual Meeting of the Midwest Economics Association, March 31-April 2, 2017.
- Mishra, Khushbu, Richard Gallenstein, Mario J. Miranda and Abdoul G. Sam. "Can Index Insurance Improve Credit Access and Technology Adoption Among Smallholder Farmers?" Selected paper, Annual Meeting of the Midwest Economics Association, March 31-April 2, 2017.
- Gallenstein, Richard, Mario J. Miranda, John Dougherty, Jon Einar Flatnes and Abdoul Sam. "Impact of Social Capital on Risk Taking in Joint Liability Lending Contracts: Evidence from Theory and a Field Experiment." Selected paper, Annual Meeting of the Midwest Economics Association, March 31-April 2, 2017.
- Xu, Chang and Mario J. Miranda. "Sustainability of Informal Risk Sharing Agreements in the Presence of Systemic Risk." Selected paper, Annual Meeting of the Midwest Economics Association, March 31-April 2, 2017.
- Zhang, Yu and Mario J. Miranda. "A Life Cycle Model of Childbearing and Saving Decisions with Incomplete Financial Markets and Sex Selection." Selected paper, North America Conference of the Chinese Economics Society, Tuscaloosa, Alabama, March 10-11, 2017.
- Mulangu, Francis M., Mario J. Miranda, Don F. Larson and Katie Farrin. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor."

- Selected paper, African Economic Conference, Abuja, Nigeria, December 5-7, 2016.
- Kemeze, Francis H., John K. M. Kuwornu, Mario J. Miranda and Henry Amin-Somuah. "Drought Index Insurance versus Supplemental Irrigation: A Randomized Controlled Trial Experimental Evidence in Northern Ghana." Selected paper, African Economic Conference, Abuja, Nigeria, December 5-7, 2016.
 - Miranda, Mario J. and Jian Chen. "Group Loan or Individual Loan? A Dynamic Framework with Systemic Risk." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Mishra, Khushbu, Richard Gallenstein, Mario J. Miranda, Abdoul G. Sam and Patricia Toledo. "Gender Differential Impacts of Index-Based Rainfall Insurance on Technology Adoption: Evidence from Ghana." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Xu, Chang and Mario J. Miranda. "The Crowd-In Effect of Index Insurance on Informal Risk Sharing." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Dougherty, John, Richard Gallenstein, Khushbu Mishra, Mario J. Miranda and Jon Einar Flatnes. "Index Insurance and Moral Hazard in a Microfinance Context." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Kemeze, Francis H., Mario J. Miranda, John K.M. Kuwornu and Henry Anim-Somuah. "Optimal Management of Runoff Reservoir Supply: The Case of Tono Reservoir in Northern Ghana." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Li, Yiting and Mario J. Miranda. "Replanting Guarantee in Developing Countries." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Chaudhry, Muhammad Imran, Ani Katchova and Mario J. Miranda. "Examining Pricing Mechanics in the Poultry Value Chain - Empirical Evidence from Pakistan." Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, Boston, MA, August 3, 2016.
 - Glauber, Joseph W. and Mario J. Miranda. "The Effects of Southern Hemisphere Crop Production on Trade, Stocks and Price Integration." Selected paper, Triennial Conference of the International Association of Agricultural Economists, Milan, Italy, August 8-14, 2015.
 - Chaudhry, Muhammad I. and Mario J. Miranda. "Structural Determinants of Adoption of Artificial Insemination among Livestock Farmers in Pakistan", Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
 - Liu, Xianglin, Yingmei Tang and Mario J. Miranda. "Does Past Experience with Natural Disasters Affect Willingness-to-Pay for Weather Index Insurance? Evidence from China", Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
 - Gallenstein, Richard A., Khushbu Mishra, Mario J. Miranda and Abdoul G. Sam. "Willingness to Pay for Rainfall Index Insurance Backed Loans and Basis Risk in

- Northern Ghana”, Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Romero-Aguilar, Randall and Mario J. Miranda. “Sustainability of Regional Food Reserves When Default Is Possible”, Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
 - Mishra, Khushbu, Abdoul G. Sam, Mario J. Miranda and Gracious Diiro. “Gender and Dynamics of Agricultural Technology Adoption: Evidence from Uganda”, Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
 - Li, Yiting and Mario J. Miranda. “Mitigation Index Insurance for Developing Countries: Insure the Loss or Insure the Signal? Selected paper”, Selected poster, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
 - Guizar, Isai, Mario J. Miranda and Claudio Gonzalez-Vega. “Financial Intermediation and Poverty Trap Dynamics over the Life Cycle.” Selected paper, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
 - Guizar, Isai, Claudio Gonzalez-Vega and Mario J. Miranda. “Uneven Influence of Credit and Savings Deposits on the Dynamics of Technology Decisions and Poverty Traps.” Selected paper, Fourth European Research Conference on Microfinance, Geneva, Switzerland, June 1-3, 2015.
 - Liu, Xianglin, Yingmei Tang and Mario J. Miranda. “Does Past Experience in Natural Disasters Affect Willingness-to-Pay for Weather Index Insurance? Evidence from China”, Presented at the Annual Meeting of the Midwest Economic Association, Minneapolis, MN, March 26-29, 2015.
 - Farrin, Kathleen M. and Mario J. Miranda. “Premium Benefits? A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
 - Romero Aguilar, Randall S., Shu-Ling Chen, Xianglin Liu and Mario J. Miranda. “The Global Food Price Crisis and China-World Rice Market Integration: A Spatial-Temporal Rational Expectations Equilibrium Model.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
 - Yen, Meng-Fen and Mario J. Miranda. “The Wage Premium and Market Structure: The Case of South Korea and Taiwan.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
 - Guizar-Mateos, Isai, Mario J. Miranda and Claudio Gonzalez-Vega. “The Role of Credit and Savings in the Dynamics of Technology Decisions and Poverty Traps.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
 - Miranda, Mario J., Kathleen M. Farrin, Donald F. Larson and Shu-Ling Chen. “Differential Effects of Food Security Policies on Subsistence Farmers and the

- Urban Poor.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
- Miranda, Mario J. and Kathleen M. Farrin. “A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption.” Presented at the International Agricultural Risk, Finance and Insurance Conference, Vancouver, Canada, June 16-18, 2013.
 - Collier, Benjamin, Jerry R. Skees and Mario J. Miranda. “On the Efficient Management of Natural Disaster Risk Using Credit and Index Insurance.” 2012 Annual Meeting of the Agricultural and Applied Economics Association, Seattle, WA, August 12-14, 2012.
 - Liu, Pu and Mario J. Miranda. “Tail Dependence among Agricultural Insurance Indices: The Case of Iowa County-Level Rainfalls.” Presented at the Agricultural & Applied Economics Association 2010 Annual Meeting, Denver, Colorado, July 25-27, 2010.
 - Miranda, Mario J. “Systemic Risk, Index Insurance and Optimal Management of Agricultural Loan Portfolios in Developing Countries”, Presented at the Conference of the African Association of Agricultural Economists, Cape Town, South Africa, Sep 22, 2010.
 - Chen, Shu-Ling and Mario J. Miranda. “Effects of Insurance on Farmer Crop Abandonment.” Presented at the Annual Conference of the American Agricultural Economics Association, Portland, Oregon, July 2007.
 - Chen, Shu-Ling and Mario J. Miranda, “Dynamic Analysis of Farmer’s Crop Insurance Decision.” The Taiwan Economic Association - Chinese Economic Association in North America Joint Conference, Taipei, Taiwan, December 17, 2006.
 - Chen, Shu-Ling and Mario J. Miranda. “Modeling Yield Distribution in High Risk Counties: Application to Texas Upland Cotton”, American Agricultural Economics Association Annual Meetings, Long Beach, CA, July 23-26, 2006.
 - Chen, Shu-Ling and Mario J. Miranda. “Modeling Multivariate Extreme-Event Crop Yield Densities”, Presented at Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 2004.
 - Vedenov, Dmitry V., Mario J. Miranda, Joseph W. Glauber and Robert Dismukes. “Economic Analysis of the Standard Reinsurance Agreement”, Presented at Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 2004.
 - Vedenov, Dmitry V. and Mario J. Miranda. “Portfolio Allocation and Alternative Structures of the Standard Reinsurance Agreement”, Presented at Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 2004.
 - Vedenov, Dmitry V. and Mario J. Miranda. “Long-Term Agricultural Risk Management: Crop Insurance vs. Savings and Borrowings.” Presented at the Conference on Risk in Agriculture and Resource Management, Gulf Shores, Alabama, March 27, 2004.
 - Katchova, Ani L., Mario J. Miranda and Claudio Gonzalez-Vega. “A Dynamic Model of Microlending in the Developing Countries.” Presented at Annual Meeting of the American Agricultural Economics Association, Chicago, Illinois, August 2001.

- Vedenov, Dmitry V. and Mario J. Miranda, "Rainfall Insurance for Midwest Crop Production ", Presented at Annual Meeting of the American Agricultural Economics Association, Chicago, Illinois, August 2001.
- Katchova, Ani L., Ian M. Sheldon and Mario J. Miranda, "A Dynamic Model of Oligopsony and Oligopoly in the Potato Processing Industry", Presented at Annual Meeting of the American Agricultural Economics Association, Tampa, Florida, August 2000.
- Schnitkey, Gary D. Jeffrey Hopkins, Mario J. Miranda and Luther Tweeten. "Learning from Site-Specific Information: Bayesian Applications to Precision Agriculture." Presented at Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, August 2-5, 1998.
- Hopkins, Jeffrey, Gary D. Schnitkey, Mario J. Miranda and Luther Tweeten. "Optimal Cropland Degradation with Reversible and Irreversible Components." Presented at Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, August 2-5, 1998.
- Makki, Shiva and Mario J. Miranda. "Self-Insurance and the Utility of Standard Risk Management Contracts." Presented at Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, August 2-5, 1998.
- Makki, Shiva, Luther Tweeten and Mario J. Miranda. "Wheat Storage-Trade Interactions under Domestic and Production Uncertainty." Presented at Annual Meeting of the American Agricultural Economics Association, Toronto, Canada, July 27-30, 1997.
- Schreiner, Mark, Doug Graham and Mario Miranda. "Choices by Poor Households When the Interest Rate for Deposits Differs from the Interest Rate for Loans." Presented at Annual Meeting of the International Agricultural Economics Association, Sacramento, California, August 1997.
- Schreiner, Mark, Doug Graham and Mario Miranda. "The Effects of the Interest Rates for Lending and Borrowing on Subsistence Households." Presented at Annual Meeting of the International Agricultural Economics Association, Sacramento, California, August 1997.
- Schreiner, Mark, Doug Graham and Mario Miranda. "The Effects on Peasant Households of Access to Formal Deposits and Loans." Presented at Annual Meeting of the American Agricultural Economics Association, San Antonio, Texas, July 1995.
- Makki, Shiva, Mario J. Miranda and Luther Tweeten. "Storage-Trade Interactions in Commodity Markets." Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.
- Hentchel, Eva, Mario J. Miranda and Allan Randall. "Enforcing Pollution Control Regulation Using Two Types of Inspections, a Reputation Indicator and Self Reports." Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.
- Rui, Xiongwen and Mario J. Miranda. "Salvaging the Nonlinear Rational Expectations Commodity Storage Model." Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.

- Miranda, Mario J. and Xiongwen Rui. "Maximum Likelihood Estimation of Nonlinear Rational Expectations Asset Pricing Models." Presented at The First Annual Conference of the Society for Computational Economics, Austin, Texas, May 1994.
- Miranda, Mario J. and Gary D. Schnitkey. "Structural Estimation of Dynamic Stochastic Discrete Choice Models in Agriculture." Presented at Annual Meeting of the American Agricultural Economics Association, Orlando, Florida, August 1993.
- Sun, Theresa Y. and Mario J. Miranda. "Wheat Market Dynamics under Rational Expectations and Government Price Support Programs." Presented at the Annual Meeting of the Missouri Valley Economic Association, Memphis, Tennessee, February 1993.
- Schnitkey, Gary D. and Mario J. Miranda. "The Impact of Pollution Controls on Livestock-Crop Producers." Presented at Annual Meeting of the American Agricultural Economics Association, Baltimore, Maryland, August 1992.
- Miranda, Mario J. and Joseph W. Glauber. "Intraseasonal Demand for Fall Potatoes Under Rational Expectations." Presented at Annual Meeting of the American Agricultural Economics Association, Baltimore, Maryland, August 1992.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding," Presented at Annual Meeting of the American Agricultural Economics Association, Manhattan, Kansas, August 1991.
- Miranda, Mario J. "Area-Yield Crop Insurance Reconsidered." Presented at Annual Meeting of the American Agricultural Economics Association, Vancouver, British Columbia, August 1990.
- Miranda, Mario J. and Joseph W. Glauber. "The Effects of Price Supports on the Valuation of Options on Agricultural Futures Markets." Presented at the Chicago Board of Trade Fall Research Seminar, Durham, North Carolina, December 1989.
- Miranda, Mario J. and Joseph W. Glauber. "International Trade, Speculative Storage and Commodity Price Stability." Presented at The International Commodity Market Modeling Conference, The World Bank, Washington, DC, October 1988.
- Glauber, Joseph W. and Mario J. Miranda. "Enhancing U.S. Exports: A Comparison of Marketing Loans and Export Subsidies." Presented at Annual Meeting of the American Agricultural Economics Association, Knoxville, Tennessee, August 1988.
- Glauber, Joseph W. and Mario J. Miranda. "A Rational Expectations Model of Inventory Holding Under Risk and Uncertainty." Presented at Annual Meeting of the American Agricultural Economics Association, Reno, Nevada, July 1986.

Other Presentations

- Gallenstein, Richard A., Khushbu Mishra, Abdoul G. Sam and Mario J. Miranda. "Using Index Insurance to Improve Access to Credit among Smallholder Farmers in Northern Ghana", Presented at the BASIS Annual Meeting in Berkeley, CA, October 29-30, 2015.

- Miranda, Mario J. "Credit, Savings and Insurance in Agricultural Risk Management." US Department of Agriculture, Economic Research Service, Washington, DC, January 20, 2015.
- Miranda, Mario J. "Managing Microfinance Institution Agricultural Portfolio Risk using Weather Index Insurance." Association of Rural Banks – Northern Chapter (ARB), Tamale, Ghana, July 24, 2014.
- Miranda, Mario J. "How to Prepare for the Job Market." Ohio State University Department of Agricultural, Environmental and Development Economics PhD Seminar Roundtable, January 27, 2009.
- Miranda, Mario J. "Teaching Computational Economics in an Applied Economics Graduate Program". Presented at Annual Conference of the Society for Computational Economics, Amsterdam, Netherlands, July 11, 2004.
- Vedenov, Dimitry V., Mario J. Miranda, J.W. Glauber and R. Dismukes, "Economic Analysis of the Standard Reinsurance Agreement", Risk Management Agency, U.S. Department of Agriculture, Kansas City, MO, August 5, 2003.
- Miranda, Mario J. "Numerical Methods for the Solution of Nonlinear Dynamic Economic Models", presented to the Department of Economics, The Ohio State University, March 25, 2002.
- Miranda, Mario J. "Challenges faced by University Teachers." Presented to the Department of Agricultural, Environmental and Development Economics, The Ohio State University, April 5, 2000.
- Miranda, Mario J. "Optimal Index Insurance Design." Presented to the World Bank Research Group, Washington, DC, June 18, 2000.
- Miranda, Mario J. "The Standard Reinsurance Historical Simulator." Presented to the Crop Insurance Industry Actuarial Research Group, Chicago, Illinois, January 13, 2000.
- Miranda, Mario J. and Paul W. Fackler. "Hybrid Methods for Continuous Space Dynamic Programming". Presented at Annual Conference of the Society for Computational Economics, Boston, Massachusetts, June 24-26, 1999.
- Rui, Xiongwen and Mario J. Miranda. "Salvaging the Nonlinear Rational Expectations Commodity Storage Model." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1995.
- Miranda, Mario J. "Systemic Risk, Reinsurance and the Failure of Crop Insurance Markets." Presented at the First Annual Conference on Risk in Agriculture and Resource Management, Gulf Shores, Alabama, March 1994.
- Blue, Neil, Joao Martinez-Filho, Mario J. Miranda and Scott Irwin. "Dynamic Hedging Strategies for Soybean Producers." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1994.
- Miranda, Mario J. and Gary D. Schnitkey. "Structural Estimation of Dynamic Stochastic Discrete Choice Models in Agriculture." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, February 1993.

- Schnitkey, Gary D. and Mario J. Miranda. "The Impact of Pollution Controls on Livestock-Crop Producers." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, January 1992.
- Miranda, Mario J. "Area-Based Crop Insurance." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, May 1991.
- Miranda, Mario J. "Area-Based Agricultural Insurance." Presented at the Second Annual Conference on Farm Income Enhancement, Columbus, Ohio, February 1991.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1991.
- Miranda, Mario J. "Estimation of Dynamic Nonlinear Rational Expectations Models of Price Formation in Markets for Storable Commodities Subject to Government Price Supports." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, October 1990.
- Sun, Theresa Y. and Mario J. Miranda. "The Dynamics of Supply, Demand and Price for Wheat Programs under Rational Expectations." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1990.
- Miranda, Mario J. "The Economic Efficiency of the Proposed Area Loss Plan for Federal Crop Insurance." Presented to the Federal Crop Insurance Task Force, U.S. Department of Agriculture Economic Research Service, September 1989.
- Miranda, Mario J. and Joseph W. Glauber. "The Effects of Price Supports on the Valuation of Options on Agricultural Futures Contracts." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1989.
- Glauber, Joseph W. and Mario J. Miranda. "Subsidized Put Options as Alternatives to Price Supports." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1989.
- Miranda, Mario J. and Joseph W. Glauber. "Subsidized Put Options as Alternatives to Price Supports." Presented at the Symposium on Options, Futures and Agricultural Commodity Programs, Washington, DC, February 1988.
- Miranda, Mario J. "A Computable Rational Expectations Model for Agricultural Price Stabilization Programs." Presented at Bi-Annual Joint Meeting of The Operations Research Society of America and The Institute of Management Science, Miami Beach, Florida, December 1987.
- Glauber, Joseph W. and Mario J. Miranda. "The Effects of Marketing Loans on Agricultural Markets." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting and Market Risk Management, Chicago, Illinois, April 1987.

- Miranda, Mario J. “Analysis of Rational Expectations Models for Agricultural Markets Subject to Government Intervention.” Presented to the Department of Agricultural Economics, University of Wisconsin--Madison, January 1986.

Major Consulting Assignments - Domestic

- U.S. National Aeronautics and Space Administration and Earth Observations for Food Security and Agriculture Consortium, “The Value of USDA Crop Condition Reports and World Agricultural Supply and Demand Estimates.” 2018-2022.
- U.S. Department of Agriculture Risk Management Agency, Multiyear Insurance, Inc. and The Iowa Corn Growers Association, Actuarial Certification of Multiyear Plan of Insurance for Corn and Soybean Producers, 2015.
- Hudson Insurance, “Actuarial Assessment of Area Revenue Combo Insurance”, 2011.
- U.S. Department of Agriculture Risk Management Agency and FarmRisk, Inc., Actuarial Certification of Livestock Gross Margin for Swine Contract, 2006.
- U.S. Department of Agriculture Risk Management Agency and FarmRisk, Inc., Actuarial Certification of Livestock Gross Margin for Dairy Cattle Contract, 2006.
- U.S. Department of Agriculture Risk Management Agency and FarmRisk, Inc., Actuarial Certification of Livestock Gross Margin for Cattle Contract, 2005.
- U.S. Department of Agriculture Risk Management Agency and AgForce, Inc., Actuarial Certification of Pasture, Rangeland and Forage Vegetation Temperature-Constrained NDVI Index Contract, 2005.
- U.S. Department of Agriculture Risk Management Agency and AgForce, Inc., Actuarial Certification of Pasture, Rangeland and Forage Vegetation Seasonal-Constrained Rainfall Index Contract, 2005.
- U.S. Department of Agriculture Risk Management Agency and Iowa Farm Bureau, “Actuarial Certification of Ethanol Insurance Contract,” 2004.
- Risk Management Agency and Great American Insurance Co., “Actuarial Rating of Area Yield Indemnity Contract”, 2003.
- Risk Management Agency and NAU Insurance, “Actuarial Certification of Group Risk Income Protection Harvest Revenue Option”, 2003.
- The Chicago Board of Trade, “Analysis of the Iowa Corn Reinsurance Options Contract”, 1994.

Major Consulting Assignments - International

- International Food Policy Research Institute. “Warehouse Receipts and Financial Practices: The Case of Ghana”, 2016-2017.
- The Food and Agriculture Organization of the United Nations and the Association of Latin American Development Banks (ALIDE). “Agricultural Credit Insurance in Latin America”, 2015.
- The World Bank Agricultural Rural Development Department. “Review of Agricultural and Rural Development Department Research and Development Activities in Weather Risk Management, 2004-2010”, 2012.

- The World Bank Agricultural Rural Development Department. “Ghana Agricultural Sector Risk Assessment”, 2011.
- The World Bank Agricultural Rural Development Department. “Honduras Agricultural Sector Risk Assessment”, 2011.
- U.S. Agency for International Development, PREMIER Project, “Economic and Actuarial Analysis of Catastrophic Drought Insurance for Bolivian Agriculture”, 2005-2007.
- U.S. Agency for International Development, Development Alternatives, Inc. and GlobalAgRisk, Inc., “Hedging Weather-Driven Portfolio Risk for Microfinance Institutions in Peru: The El Nino–Southern Oscillation Index Insurance Contract”, 2004-2007.
- The World Bank and Agricultural Risk Management Consulting, Inc., “Rainfall Insurance Contracts for Nicaragua”, 1998-2001.
- The World Bank and Agricultural Risk Management Consulting, Inc., “Weather-Based Index Insurance: A Feasibility Study for Drought Insurance for Morocco”, 2000.

Research Grants

- Received over \$5,000,000 in extramural funding since joining profession.
- Miranda, Mario J. *Macro Linkages between Crop Insurance and Agricultural Credit System*. \$30,000. US Department of Agriculture, Economic Research Service, October 2019 - September 2021.
- Miranda, Mario J. *Warehouse Receipts in Ghana: Phase I*. \$48,748. International Food Policy Research Institute. Jun 2016 - Feb 2017.
- Miranda, Mario J. *Effects and Welfare Benefits of Public Agricultural Commodity Market Information and the Sustainability of International Buffer Stock Agreements*. \$75,000. US Department of Agriculture, Office of the Chief Economist. Jan 2016 - Dec 2016.
- Miranda, Mario J. and Abdoul G. Sam. *Promoting Financial Inclusion and Technical Transformation among Smallholders in Tanzania: A Capacity-Building Exercise*. \$402,974. US Agency for International Development, Innovative Agricultural Research Initiative Project. Aug 2015 - Feb 2017.
- Miranda, Mario J. *Credit, Savings and Insurance in Agricultural Risk Management: Theory and Empirical Evidence*. \$120,000. US Department of Agriculture, Market and Trade Economics Division. Aug 2015-Feb 2017.
- Miranda, Mario J., Abdoul G. Sam and Francis M. Mulangu. *Promoting Adoption of Improved Production Technologies among Smallholders in Ghana via Coupled Credit and Index Insurance Contracts*. US Agency for International Development, BASIS Assets and Market Access Research Program. \$811,085. Jul 2013 - Sep 2016.
- Miranda, Mario J. *The Global Food Price Crisis and China World Rice Market Integration*. OSU Office for International Affairs Research Seed Grant. \$7,000. Apr 2013 - Jun 2014.

- Miranda, Mario J. *Public Reserves, Price Volatility and Sustainability of Multilateral Buffer Stock Agreements*. U.S. Department of Agriculture Office of the Chief Economist. \$184,017. Sep 2012 - Dec 2013.
- Miranda, Mario J. *Optimal Management of Catastrophic Climate Risk: the Case of Peru*. OSU Office for International Affairs Study Grant. \$4,000. Jul 2009 - Jun 2010.
- Miranda, Mario J. *Analysis of the Standard Reinsurance Agreement*. U.S. Department of Agriculture Economic Research Service. \$72,836. Sep 2002 - Sep 2004.
- Miranda, Mario J. and Brian Roe. *AgRisk Online: Internet Delivery of Crop and Livestock Risk Management Tools*. National Institute of Food & Agriculture. \$50,000. Sep 2001 - Sep 2003.
- Miranda, Mario J. *Risk Management Policy Analysis and Modeling*. U.S. Department of Agriculture Economic Research Service. \$29,000. Sep 2000 - Sep 2002.
- Miranda, Mario J., Gary Schnitkey and Scott H. Irwin. *Development of AgRisk 2000*. University of Illinois. \$204,000. Oct 1998 - Sep 2000.
- Miranda, Mario J. *A Comprehensive Risk Management Education Program*. Purdue University. \$37,500. Feb 1998 - Feb 2003.
- Miranda, Mario J. *Market Based Solutions to the Risk Management Problems of Rural America*. U.S. Department of Agriculture Fund for Rural America Planning Grant. \$25,000. Sep 1997 - Sep 1998.
- Miranda, Mario J. *Analysis of Agricultural Risk and Insurance*. U.S. Department of Agriculture Economic Research Service. \$551,370. Jul 1997 - Sep 2002.
- Miranda, Mario J. and Gary Schnitkey. *AgRisk: A Real-Time Risk Assessment Tool for Farmers*. U.S. Department of Agriculture. \$160,000. Jun 1997 - Sep 1998.
- Miranda, Mario J. *Actuarial Soundness of Crop Reinsurance Agreement*. U.S. Department of Agriculture Economic Research Service. \$150,000. Sep 1996 - Sep 2002.
- Miranda, Mario J. *Analysis of Revenue Insurance Based on Shortfalls in Per Acre Revenue*. U.S. Department of Agriculture Economic Research Service. \$50,000. Sep 1993 - Sep 1997.
- Miranda, Mario J. *Structural Determinants of U.S. Competitiveness in the World Soybean Complex*. National Institute of Food & Agriculture. \$100,000. Sep 1993 - Sep 1996.
- Miranda, Mario J. *Effect of Alternative Government Programs on the Distribution of Government Outlays*. U.S. Department of Agriculture Economic Research Service. \$27,500. Jun 1992 - Dec 1993.
- Miranda, Mario J. *Estimation of Dynamic Rational Expectations Models of Primary Commodity Markets*. OARDC Research Seed Grant. \$12,420. Sep 1991 - Sep 1992.
- Miranda, Mario J. *Stochastic Dynamic Programming Algorithms for Commodity Stabilization Policy Analysis*. OARDC Research Challenge Grant. \$9,310. Sep 1990 - Sep 1991.
- Miranda, Mario J. and Thomas Sporleder. *New Uses for Agricultural Products*. National Institute of Food & Agriculture. \$126,084. Jul 1989 - Jun 1992.
- Miranda, Mario J. *Use of Target Revenues versus Target Prices in Stabilizing Producer Income*. U.S. Department of Agriculture Economic Research Service. \$22,500. Apr 1989 - Sep 1992.

- Miranda, Mario J. *The Effects of Mandatory Production Controls on Public and Private Stockholding*. U.S. Department of Agriculture Economic Research Service. \$5,000. Sep 1987 - Sep 1988.
- Miranda, Mario J. *Use of Futures and Options Markets as Alternatives to Government Commodity Programs*. U.S. Department of Agriculture Economic Research Service. \$27,500. Sep 1986 - Sep 1987.
- Miranda, Mario J. *An Economic Analysis of the Effects of Government Price Support Programs*. U.S. Department of Agriculture Economic Research Service. \$38,000. Sep 1985 - Sep 1986.

Doctoral Advisees Graduated

- Ali, Asif. 2012. "Financial Policies and Income and Wealth Inequality: A Kuznetsian Story of Financial Deepening and Human Capital Accumulation." Senior Joint Director, Financial Stability Department, Central Bank of Pakistan, Karachi, Pakistan.
- Bangwan, Sureewan. 2018. "The Effects of Catastrophic Risk on the Performance of the Thailand National Village and Urban Community Fund Program and Prospects for Managing it Through the Use of Weather Index Insurance." Research Economist, Office of Agricultural Economics, Thailand Ministry of Agriculture and Cooperatives, Bangkok, Thailand.
- Chaudhry, Muhammad Imran. 2016. "Essays on Agricultural and Financial Markets in Pakistan." Assistant Professor, Dawood School of Business, Lahore University of Management Sciences, Lahore, Pakistan. *Honorable Mention, Agricultural and Applied Economics Association Outstanding Doctoral Dissertation Award 2017*.
- Chen, Jian. 2019. "Systemic Risk and the Sustainability of Joint Liability Group Lending." Marketing Data Analyst, SafeAuto Insurance, Columbus, OH. *Recipient, American Agricultural Economics Association China Section Outstanding Doctoral Dissertation Award 2019*.
- Chen, Shu-Ling. 2007. "Essays on Agricultural and Catastrophic Risk Management." Associate Professor, Department of Finance & Cooperative Management, National Taipei University, Taipei, Taiwan.
- Chen, Yong. 2009. "Essays on the Interactions between Regional Development and Natural Amenities." Associate Professor, Department of Applied Economics, Oregon State University, Corvallis, OR.
- Collier, Benjamin L. 2013. "Financial Inclusion and Natural Disasters." Assistant Professor, Department of Risk, Insurance & Healthcare Management, Fox School of Business, Temple University, Philadelphia, PA. *Recipient, Agricultural and Applied Economics Association Outstanding Doctoral Dissertation Award 2014*.
- Dougherty, John P. 2018. "Three Essays on the Economic Sustainability of Drought Insurance and Soil Investment for Smallholder Farmers in the Developing World." Assistant Professor, Department of Economics, Loyola University Maryland, Baltimore, MD.
- Farrin, Kathleen M. 2013. "Escape from Poverty Traps: Effects of Policy Intervention on Agricultural Productivity and Welfare among the Rural Poor." Economist,

- Development Economics & Indicators Division, Asian Development Bank, Manila, The Philippines.
- Foroutan, Pirouz V. 2003. "Agent-Based Modeling of Raccoon Rabies Epidemic and Its Economic Consequences." Economist, US Food & Drug Administration, College Park, MD.
 - Gallenstein, Richard T. 2017. "Essays on Agricultural Microfinance and Risk Management." Assistant Professor, Department of Economics, Catholic University of America, Washington, DC.
 - Guizar-Mateos, Isai. 2013. "Financial Development, the Dynamics of Technology Choices and Poverty Traps." Professor of Economics & Finance, Universidad de Guadalajara, Guadalajara, Mexico.
 - Jun, Min Su. 2016. "Essays on Complex Contractual Networks of Farmers." Research Fellow, Department of Industry & Strategy, Samsung Economic Research Institute, Seoul, South Korea.
 - Katchova, Ani L. 2001. "Essays on Agricultural Decisionmaking." Associate Professor and Farm Income Enhancement Chair, Department of Agricultural, Environmental & Development Economics, The Ohio State University, Columbus, OH.
 - Kemeze, Francis H. 2016. "Drought Risk Management Using Index Insurance and Supplemental Irrigation among Smallholder Farmers in Northern Ghana." Research Economist, African Development Bank, Abidjan, Côte d'Ivoire.
 - Li, Yiting. 2017. "Essays on Risk Coping and Risk Management in Developing Countries." Data Analyst, College of Public Health, The Ohio State University, Columbus, OH.
 - Liu, Pu. 2010. "Dependence Structure in Agricultural Index Insurance Design and Product Development." Principal Forecast Analyst, American Electric Power, Columbus, OH.
 - Liu, Xianglin. 2016. "Essays in Agricultural Insurance." Independent Economic Consultant, Trenton, NJ.
 - Mishra, Khushbu K. 2017. "Gender and Development Economics: Pathways to Close Gender-Related Economic Gaps in Developing Agrarian Economies in Areas of Asset, Risk and Credit Constraints." Assistant Professor, Department of Economics, Stetson University, DeLand, FL.
 - Romero-Aguilar, Randall S. 2015. "The World Food Crisis: A Quantitative Economics Assessment of Policy Options." Economist, Consejo Monetario Centroamericano and Lecturer, Department of Economics, University of Costa Rica, San Jose, Costa Rica.
 - Rui, Xiongwen. 1995. "Essays on the Solution, Estimation and Analysis of Dynamic Nonlinear Economic Models". Vice President and Head of Security & Risk Management, Ant Financial, Hangzhou, China. *Recipient, American Agricultural Economics Association Outstanding Doctoral Dissertation Award 1996.*
 - Svarch, Malena. 2011. "Consumption Smoothing with Imperfect Capital Markets and Income Risk-Sharing." Manager, Product & End User Experience Research, Scripps Network Interactive, New York City, NY.

- Vedenov, Dmitry V. 2001. "Essays in Agricultural Finance and Risk Management." Associate Professor, Department of Agricultural Economics, Texas A&M University, College Station, TX. *Honorable Mention, American Agricultural Economics Association Outstanding Doctoral Dissertation Award 2002.*
- Wang, Hui. 2012. "Strategic Behavior in Consumer Default." Assistant Vice President, Enterprise Risk Management, State Street Associates, Boston, MA.
- Wu, Ruohan. 2013. "Dynamics of Exports, Innovation and Productivity." Assistant Professor, Department of Economics & Finance, University of North Georgia, Dahlonega, GA.
- Xu, Chang. 2018. "Index Insurance, Informal Risk Sharing Groups and Moral Hazard." Senior Quantitative Analyst, Risk Modeling and Analytics Team, Fifth Third Bank, Cincinnati, OH.
- Yen, Meng-Fen. 2017. "Essays on International Trade, Market Structure and Agricultural Cooperatives." Postdoctoral Researcher, Department of Finance, National Taiwan University, Taipei, Taiwan.
- Zhang, Yu. 2018. "Essays on Household Life-Cycle Investment Decisions." Assistant Professor, School of Insurance and Economics, University of International Business and Economics, Beijing, China.

University Courses Taught

- Undergraduate: Managerial Economics, Introductory Statistics, Microcomputer Methods, Production Analysis
- Graduate: Applied Mathematics for Economists, Applied Economic Dynamics, Frontiers Seminar in International Development, Introduction to Computational Economics, Advanced Computational Economics, Finance and Risk Management

Service to Profession

- Proposal Review Panel, National Institute of Food and Agriculture, 2014.
- Advisory Board, Society for Computational Economics, 1996-1998, 2002-2005
- Outstanding Dissertation Award Selection Committee, American Agricultural Economics Association, 1993-96, 2002-5, Chair in 2005.
- Selected Papers and Poster Review Committee, American Agricultural Economics Association, 1990, 1994, 1995, 1999 and 2000.
- Session Moderator, Annual Meeting of the American Agricultural Economics Association: 1994 and 1995.
- Manuscript Reviewer: *Agribusiness: An International Journal*, *Agricultural Economics*, *Agricultural Finance Review*, *American Economic Review*, *American Journal of Agricultural Economics*, *Applied Economic Perspectives & Policy*, *Canadian Journal of Agricultural Economics*, *European Review of Agricultural Economics*, *Food Policy*, *Geneva Papers on Risk and Insurance*, *Human and Ecological Risk Assessment*, *International Development Bank Working Papers*, *International Economic Review*, *International Journal of Disaster Risk Reduction*, *International Journal of Economics*, *International Review of Economics and*

- Finance, Journal of Agricultural and Applied Economics, Journal of Agricultural and Resource Economics, Journal of Agricultural Economics, Journal of Applied Econometrics, Computational Economics, Journal of Development Economics, Journal of Economic Analysis and Policy, Journal of Economic and Environmental Management, Journal of Economic Dynamics and Control, Journal of Economic Integration, Journal of Financial Econometrics, Journal of Integrative Agriculture, Journal of Production Agriculture, Journal of Public Economics, Journal of Risk Analysis and Crisis Response, Journal of Risk and Insurance, Journal of Testing and Evaluation, Land Economics, Review of Agricultural Economics, Review of Economics and Statistics, The B.E. Journal of Economic Analysis and Policy, The Geneva Risk and Insurance Review, The International Food and Agribusiness Management Review, The Review of Economic Studies, Weather, Climate, and Society, Western Journal of Agricultural Economics, World Development.
- Book Reviewer: American Journal of Agricultural Economics, Canadian Journal of Agricultural Economics, Oxford Academic Press, Cambridge Academic Press and Kluwer Academic Press.

Service to Department

- Departmental Chair Search Committee 2018-2019.
- Department Chair Search Committee, 1998, 2009-2010, 2014-2019.
- Graduate Studies Committee, 1991-1993, 1996-2000, 2017-2019.
- Development Economics Assistant Professor Search Committee (Chair) 2014-2015.
- Research and Graduate Program Leader, 2001-2004, 2008-2011.
- Standing Search Committee, 1999-2004, 2006-2010.
- Awards and Alumni Relations Committee, 2002-2010.
- Departmental Council, 1996-1998, 2008-2009.
- Andersons Chair Search Committee, 2003-2005.
- Masters Program Reform Committee (Chair), 1997-1998.
- Seminar Committee, 1993-1997, Chair 1997.
- Doctoral Dissertation Award Committee, 1990, 1997.
- Strategic Planning Committee, 1995-1997.
- Computer Resources Committee, 1990-1996.
- Doctoral Qualifying Examination Committee, 1991-1992.
- Ad Hoc Committee on Undergraduate Curriculum Reform, 1990-1991.
- Agribusiness Masters Program Curriculum Reform Committee, 1989-1991.

Service to College and University

- The Ohio State University, Graduate Studies Committee, Latin American Studies Program, Member, 2012-present.
- The Ohio State University, Advisory Board, Center for Latin American Studies, Member, 2012-present.
- Ohio State University Presidential Fellowship Committee, 2003-2010.
- Ohio State University Promotion & Tenure Committee, 2007-2010.

- College of Food, Agricultural & Environmental Sciences Promotion & Tenure Committee, 2004-2007, Chair, 2006-2007.
- Krauss Director's Fellowship Committee, 2007.
- Ohio State University Foreign Language Area Studies Fellowship Committee, 2004-2006.
- John Glenn Institute for Public Policy, Oversight Committee, 2000-2004.
- Program Committee, Battelle Endowment for the Humanities and Arts, 1994-1997.
- Hispanic Awareness Week, Host and Participant, 1988-1990, 1994.

Biographical Listings

- Outstanding Young Men of America
- Who's Who in Finance and Industry

Academic Honoraries

- Sigma Xi, 1985
- Phi Kappa Phi, 1990
- Sigma Delta, 1985

Professional Associations

- The American Agricultural Economics Association
- The American Economic Association
- Society for Computational Economics

Languages

- Fluent English and Spanish.