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Geography and Environmental Sustainability
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RESEARCH AND TEACHING FIELDS

Natural Resource and Agricultural Economics
Environmental Economics
Water and Energy Economics
Mathematical Methods and Programming

Biofuels, Renewable Energy
Sustainability and Climate Change
Decision Making under Uncertainty
Geospatial and Spatio-temporal Analysis

APPOINTMENTS AND PROFESSIONAL AFFILIATIONS

University of Oklahoma, Dept. of Geography and Environmental Sustainability
Assistant Professor, since 2014

University of Texas at Austin, BEG, Center for Sustainable Water Resources
Postdoctoral Researcher, 2013 – 2014

University of California at Berkeley, Dept. of Agricultural & Resource Economics
Postdoctoral Scholar, 2009 – 2012

Humboldt University of Berlin, Dept. of Agricultural Economics
Postdoctoral Research Associate, 2007 – 2009

EDUCATION AND RESEARCH

Habilitation degree in Agricultural Policy, 2013
Humboldt University of Berlin

PhD in Agricultural Economics (with distinction), 2007
Humboldt University of Berlin

MSc in Economics (with highest distinction), 2004

Pedagogy study and certified teaching qualifications (with highest distinction), 2004
University of Rzeszow, Poland

Studies in Economics and research towards MSc
Technical University of Berlin, Germany, 2002 – 2003

SELECTED PUBLICATIONS SINCE 2008

BOOKS

Ziolkowska, J.R. (2013): Fuzzy Multi-Criteria Evaluations in Complex Decision Systems. How to Deal with Uncertainties in Biofuels Policies – Sustainability Study for Biofuels Feedstocks in the US. Shaker Publisher: Aachen

Ziolkowska, J. (2007): Agro-Environmental Policy in Poland after the Accession to the European Union: Evaluation and Design Approaches and Case Study for the Region Subcarpathia. Shaker Publisher: Aachen

REFEREED ARTICLES IN JOURNALS

Ziolkowska, J.R. (2014): Optimizing Biofuels Production in an Uncertain Decision Environment: Conventional vs. Advanced Technologies. *Applied Energy* 114: 366-376

Ziolkowska, J.R., Simon, L. (2014): Recent Developments and Prospects for Algae-Based Fuels in the US. *Renewable & Sustainable Energy Reviews* 29: 847-853

Ziolkowska, J.R. (2013): Evaluating Sustainability of Biofuels Feedstocks: A Multi-Objective Framework for Supporting Decision Making. *Biomass & Bioenergy* 59: 425-440

Ziolkowska, J.R., Ziolkowski, B. (2011): Product Generational Dematerialization Indicator: A Case of Crude Oil in the Global Economy. *Energy (Elsevier Journal)* 36: 5925-5934

- Ziolkowska, J.R. (2011): Fuzzy Multi-Criteria Framework for Supporting Biofuels Policy Making. *International Journal of Science, Engineering and Technology* 59: 341-345
- Ziolkowska, J.; Simon, L. (2011): Biomass Ethanol Production Faces Challenges. *ARE Update* 14(6): 5-8
- Ziolkowska, J.; Simon, L. (2011): Environmental Implications of Biofuels – Theoretical and Empirical Analysis for the EU and US. *Journal of the Japan Institute of Energy* 90(2): 177-181
- Ziolkowska, J.; Meyers, W.H.; Meyer, S.; Binfield, J. (2010): Targets and Mandates: Lessons Learned from EU and US Biofuel Policy Mechanisms. *AgBioForum* 13(4): 398-412
- Ziolkowska, J.; Ziolkowski, B. (2010): Generational Dematerialization of Energy in the World Economy: Evaluation Approach for Sustainable Management Policy. *Journal of Environmental Assessment Policy and Management* 12(3) (September 2010): 291-309
- Ziolkowska, J.; Simon, L. (2010): Environmental Benefits, Challenges and Valuation of Biofuels Policy. *Journal of Biofuels* 1(1): 57-66
- Ziolkowska, J. (2010): Implications of Structural Policies on the Wheat Market – Comparative Static and Dynamic Analysis for the EU and US. *Journal of Agricultural Research and Development* 9(2): 97-115
- Ziolkowska, J. (2010): Impact of Environmental Objectives on Optimal Budget Allocation for Agri-Environmental Measures – A Case Study for Poland. *Agricultural Economics Research Review* 23 (July-December 2010): 233-244
- Ziolkowska, J.; Ziolkowski, B. (2010): Sustainable Development in the European Union: Tools for Policy Evaluation. *Annals of the University of Petrosani – Economics* 10(3): 373-382
- Ziolkowska, J. (2009): Environmental Benefit, Side Effects, and Objective-Oriented Financing of Agri-Environmental Measures. *International Journal of Economic Sciences and Applied Research* 2(1): 71-88
- Ziolkowska, J. (2009): Importance of Regional Preferences for Decision-Making in Agri-Environmental Policy. *Journal of Rural Development* 28 (2): 185-198
- Ziolkowska, J.; Jechlitschka, K.; Kirschke, D. (2009): Global Implications of National Price Policies on the Wheat Market – Quantitative Assessment of World Market Effects. *Agricultural Economics – Czech (Zemědělská ekonomika)* 55(10): 475-480
- Ziolkowska, J. (2009): Modelling and Financing of Agri-Environmental Measures: Assessment of Regional Preferences in Poland. *Economics and Applied Informatics* 15: 259-266
- Ziolkowska, J. (2009): Economic Challenges and Ecological Effectiveness of Agri-Environmental Measures in Poland. *Ecology and Future* 8(3): 3-8
- Ziolkowska, J. (2009): Environmental Indicators for Rural Areas – Sustainable Potential in the New and Old EU Member States. *Annals of the University of Petrosani – Economics* 9(2): 335-346
- Ziolkowska, J. (2008): Evaluation of Agri-Environmental Measures: Analytic Hierarchy Process and Cost-Effectiveness Analysis for Political Decision-Making Support. *International Journal of Rural Management* 4(1-2): 1-24
- Ziolkowska, J.; Ziolkowski, B. (2008): Eco-Innovations in Europe – State and Development Prospects. *International Journal of Management Practice* 3(1): 20-30
- Ziolkowska, J. (2008): Designing Agri-Environmental Measures for Maximal Environmental Benefit: Linear Programming Approach for Poland. *Economics and Rural Development* 4(2): 35-44
- Ziolkowska, J.; Ziolkowski, B. (2008): Competitiveness of the Polish and the European Economy – Structural Analysis and Effects of the EU Enlargement. *Social Researches* 3 (13): 197-205
- Ziolkowska, J. (2008): National Agri-Environmental Programme 2004-2006 for Poland: Evaluation by Agricultural Experts, Agri-Environmental Advisors and Farmers. *Economics and Rural Development* 3 (2): 37-42

ARTICLES UNDER REVIEW IN REFEREED JOURNALS

- Ziolkowska, J.R.: Prospective Technologies, Feedstocks and Market Innovations for Ethanol and Biodiesel Production in the US
- Ziolkowska, J.R.; Ziolkowski, B. Energy Efficiency in the Transport Sector in the EU-27: Dynamic Dematerialization Analysis

ARTICLES IN BOOKS AND CONFERENCE PROCEEDINGS

- Meyers, W.H.; Ziolkowska, J.R. (2013): Biofuels and Agricultural Markets. In: Segre', A.; Vittuari, M. (eds.): *Il libro verde dello spreco in Italia: l'energia (The Green Book on Energy Waste in Italy)*. Edizioni Ambiente: Milano: 54-68
- Ziolkowska, J.R.; Meyers, W.H. (2012): Sustainable Development Strategies for Future Societies - Patterns, Policies and Challenges for the Agricultural Sector in the EU and US. In: Lapka, M.; Cudlínova, E. (eds.): *Towards an Environmental Society? Concepts, Policies, Outcomes*. Karolinum Press: Praha, p. 133-153
- Meyers, W.H.; Ziolkowska, J.R. (2012): The CAP from a Global Agriculture Perspective. In: Kowalski, A.; Wigier, M.; Dudek, M. (eds.): *Proposals for CAP 2013+ and Competitiveness of Food Sector and Rural Areas*. Institute of Agricultural and Food Economics: Warsaw, p. 27-37
- Meyers, W.H.; Ziolkowska, J.R.; Tothova, M.; Goychuk, K. (2012): Issues Affecting the Future of Agriculture and Food Security for Europe and Central Asia. *UN FAO Policy Studies on Rural Transition 2012-3*, pp. 173
- Ziolkowska, J.; Simon, L. (2010): Environmental Effects and Implications of Biofuels in the EU and US – Theoretical Framework and Empirical Analysis. In: Labar, K.; Petrick, M.; Buchenrieder, G. (eds.): *Challenges of Education and Innovation for Agricultural Development. Studies on the Agricultural and Food Sector in Central and Eastern Europe* 56: 79-88
- Chauhan, B. S.; Kumar, N.; Jun, Y.-J.; Ziolkowska, J. (2010): Feasibility Study of Vegetable Oil as a Potential Fuel for Diesel Engine. *Proceeding of the Conference of the Korean Society of Automotive Engineers*. Kongju National University, Cheonan: 65-70
- Ziolkowska, J.; Simon, L. (2009): Environmental Benefits, Challenges and Valuation of Biofuels Policy. In: Sharma, P.B.; Kumar, N. (eds.): *New Frontiers in Biofuels*. Scitech Publications (India) PVT. Ltd.: Chennai: 162-173
- Ziolkowska, J. (2009): Hierarchical Network Modelling and Multicriteria Analysis for Agri-Environmental Measures in Poland. In: Schaft, F.; Balmann, A. (eds.): *Multi-level Processes of Integration and Disintegration. Studies on the Agricultural and Food Sector in Central and Eastern Europe* 52: 168-178
- Ziolkowska, J. (2008): Identifying Effective Financing Strategies for Agri-Environmental Measures and Conflicts between Environmental Objectives. In: Tsounis, N. et al. (eds.) *Proceedings of the International Conference on Applied Economics 2008*. TEI of Western Macedonia Press: 953-958
- Ziolkowska, J. (2008): Agri-Environmental Measures in Poland after the Accession to the European Union – Chances, Challenges and Objective-Oriented Financing from a Regional Perspective. In: Schäfer, C., Rupschus, C.; Nagel, U.-J. (eds.): *Enhancing the Capacities of Agricultural Systems and Producers*. Weikersheim, Margraf Publishers: 308-314

OTHER PUBLICATIONS

- Ziolkowska (2014): Sustainable Path to Knowledge? Research Trips and the Environment – A Critical Perspective. *Junge Akademie Magazin* 17: 10
- Ziolkowska (2013): Environmental Technology – An Example of Growing Success. *Junge Akademie Magazin* 16: 9.
- Ziolkowska (2012): Ideen fuer eine Nachhaltige Forschung von Morgen (Ideas about Sustainable Research of the Future) In: *Junge Akademie & Stifterverband fuer die deutsche Wissenschaft: Ideen fuer eine nachhaltige Hochschule von morgen*: 23-25, E-Paper: <http://epaper.unigestalten.de/category/nachhaltigkeit/>

WORK IN PROGRESS

- Ziolkowska, J.R.: Shadow Price of Water for Irrigation – A Case of the High Plains
- Ziolkowska, J.R.: Trends and Perspectives for Water Desalination – A Global and Regional Cost Analysis
- Ziolkowska, J.R.: Technological Maturity of Advanced Biofuels – Economic Feasibility Study for the US
- Ziolkowska, J.R.: Socio-economic Impacts of Drought on the Texas Economy
- Ziolkowska, J.R.; Ziolkowski, B.: Water Management in Europe in the Context of Product Generational Dematerialization
- Trent, J.; Ziolkowska, J.R. Offshore Membrane Enclosures for Growing Algae - An Ecological System for Sustainable Generating of Renewable Fuels
- Ziolkowska, J.R.; Renger, R.: Immediate, Intermediate and Long Term Outcomes of Evaluation Policies – Logic Model Framework for Decision-Making Support
- Ziolkowska, J.R.: Climate Change and Agriculture: Challenges and Perspectives for Policy-Making

TEACHING EXPERIENCE

University of Oklahoma

GEOG5143 Ecosystem Services, Instructor, Fall 2014

Humboldt University of Berlin

Natural Resource & Renewable Energy Economics and Policy, Instructor, Summer 2012

Market and Policy Analysis, Instructor & teaching assistant, Summer 2012, Fall 2011, Summer 2007, Fall 2006

Scientific Working, Instructor, Fall 2006

University of Missouri, Columbia

Advanced Market and Price Analysis, Guest lecture, 04/2012

STUDENT SUPERVISION

International MSc Program 'Integrated Natural Resource Management', 2012-2014

Advisor (7 students)

Reviewer and MSc committee member (3 students)

International MSc Program 'Agricultural Management' and 'Agricultural Economics', 2006-2009

Advisor (19 students)

Reviewer of MSc theses (9 students)

MSc thesis committee member (6 students)

International MSc Program 'Rural Development', EU Program in cooperation with Ghent University (Belgium), University of Cordoba (Spain), National Higher Agricultural Education Institute of Rennes (France), University of Pisa (Italy), Wageningen University (the Netherlands), Slovak Agricultural University in Nitra (Slovakia) (2007-2008)

Reviewer of MSc theses (3 students)

RESEARCH GRANTS

European Commission, EU Marie Curie Fellowship, Postdoctoral research grant, University of California at Berkeley, Humboldt University of Berlin (2009-2012) (\$300,000) - PI

German Federal Environmental Foundation, PhD grant, Humboldt University of Berlin (2005-2007) (\$39,000) - PI

KAAD, MSc research grant, Technical University of Berlin (2002-2003) (\$4,000) - PI

HONORS/AWARDS

Author Achievement/Publication Award, BEG, University of Texas at Austin (2014)

Research Award for Outstanding Young Researchers, Mayor of Berlin/German Academy of Sciences (2013) (\$13,700)

Best Paper Award, North American Fuzzy Information Processing Society Conference, Berkeley, CA (2012)

Elected fellow of the German Young Academy of Sciences, sponsored by German National Academy of Sciences Leopoldina and Berlin-Brandenburg Academy of Sciences (2012-2017) (\$34,000)

Distinction award for the top graduates, President of the University of Rzeszow (2004)

Award for the most distinguished students in the country, Polish Education Minister (2001-2002, 2002-2003)

Award for excellent study results, University of Agriculture in Krakow (2000-2001)

SCHOLARSHIPS/OTHER GRANTS

UT Austin, BEG, Conference presentation in Washington DC (2013) (\$1,800)

DAAD, Conference presentation in Brazil (2012) (\$1,600)

World Bank, Conference presentation in Egypt (2009) (\$700)

EU grants, Conference presentations in Germany (2007-2010)

AAEA and IAAE, Conference presentation in Australia (2006) (\$1,400)

German Ministry for Education and Research, Summer School grant (2008)

FAZIT Foundation, Conference presentations in Spain and Belgium (2008) (\$1,500)

H. Wilhelm Schaumann Foundation, Conference presentations in Greece and the Netherlands (2007, 2008) (\$700)

Humboldt University of Berlin, Conference presentation in Australia and Spain (2006, 2008) (\$1,200)

FAZIT Foundation/ Humboldt University of Berlin, Grant for the print costs of the dissertation thesis (2007) (\$1,300)

German Federal Environmental Foundation, Conference presentations in Germany and abroad (2005-2007) (\$1,400)

PROJECT MANAGEMENT

University of Oklahoma

Faculty team member for National Science Foundation (NSF) & EPSCoR project 'Adapting Socio-ecological Systems to Increased Climate Variability' (2014-2018)

University of California at Berkeley, Humboldt University of Berlin

Development of a framework for managing uncertain decisions in agricultural and environmental policies – Towards an integrated policy for decision-making support in rural areas (2009-2012)

Leibniz Institute for Agricultural Engineering, Potsdam-Bornim

Energy efficiency in agriculture - EU AGREE project; Organizer and manager: Expert workshop, Berlin (2012/2013)

Humboldt University of Berlin

Creation of an interactive digital teaching and learning system for policy analysis of agricultural markets for International Master Study Programs (2007-2008)

Dynamic effects in the interactive digital teaching and learning system for policy analysis of agricultural markets for International Master Study Programs (2008)

Organizer and manager: EU Marie Curie Summer School 'Agricultural Policy Analysis' (2008)

Institute for Natural Protection and Technologies, Berlin

Scientific film: 'Effective Micro Organisms in Norway', Berlin 2005 (with J. Leuschner) and case study on organic farming in Norway

INTERNATIONAL RESEARCH PROJECTS

Economic Research Institute, Halle/Saale, Germany, 'Entrepreneurship development in the border region', 08-09/2004

Technical University of Berlin, 'Knowledge management', 10/2002-06/2003

Bertelsmann Foundation, Gütersloh, Germany, 'Innovative communication instruments for libraries', 07-09/2002

Imperial College London, 'Farming and banking services', 04/2002

Katholieke Universiteit Leuven, Belgium, 'Milk sector in the EU', 07-08/2001

PEER-REVIEWED PRESENTATIONS (single author and/or first author presentations)

EAAE Meeting, Ljubljana, Slovenia, August 2014

AAEA Annual Meeting, Minneapolis, MN, July 2014

AEA/ASSA Annual Meeting, Philadelphia, PA, January 2014

AGU Annual Meeting, San Francisco, CA, December 2013

AAEA Annual Meeting, Washington DC, August 2013

North American Fuzzy Information Processing Society conference, Berkeley, CA, August 2012

Western Economic Association International conference, San Francisco, CA, June/July 2012

129th EAAE Seminar: Valuation Methods in Agro-food and Environmental Economics, Barcelona, July 2012

International Conference on Fuzzy Systems and Neural Computing, Paris, November 2011

European Association of Agricultural Economists Conference, Zurich, Switzerland, August/September 2011

International Renewable Energy Conference, Yokohama, Japan, June/July 2010

14th ICABR (International Consortium on Applied Bioeconomy Research) Conference, Ravello, Italy, June 2010

International Conference on Social Sciences, Honolulu, HI, June 2010

4th MACE Conference (Modern Agriculture in Central and Eastern Europe), Berlin, Germany, January 2010

1st International Conference on New Frontiers in Biofuels, New Delhi, India, January 2010

27th International Conference of Agricultural Economists, Beijing, China, August 2009

83rd Annual Conference of the Agricultural Economics Society, Dublin, Ireland, March/April 2009

International Initiative for Impact Evaluation conference, Cairo, Egypt, March/April 2009

3rd MACE Conference, Berlin, Germany, January 2009

12th Conference of the European Association of Agricultural Economists, Ghent, Belgium, August 2008

107th European Association of Agricultural Economists Seminar, Seville, Spain, January/February 2008

International Conference on Applied Economics, Kastoria, Greece, May 2008

2nd MACE-Conference, Berlin, Germany, January 2008

22nd Conference of European Society of Rural Sociology, Wageningen, Netherlands, August 2007

International Scientific Conference on Rural Development, Jelgava, Latvia, April 2007

1st MACE-Conference, Berlin, Germany, January 2007

26th Conference of the International Association of Agricultural Economists, Gold Coast, Australia, August 2006
7th International Farming System Association -Symposium, Wageningen, Netherlands, May 2006
CHANNEL Conference in the 6th EU Framework Program, Budapest, Hungary, April 2006
11th Conference of European Association of Agricultural Economists, Copenhagen, Denmark, August 2005

OTHER INVITED PRESENTATIONS

AAEA Annual Meeting, Seattle, WA, August 2012
28th International Conference of Agricultural Economists, Foz do Iguacu, Brazil, August 2012
AAEA Annual Meeting, Denver, CO, July 2010
Association for Projects in Ecology, Agriculture and Development of Rural Areas, Neuseddin, Germany, July 2008, 2007

REFEREE AND COORDINATOR ACTIVITIES

Referee

Energy Elsevier Journal; Energy Policy; Environmental and Resource Economics; Journal of Agriculture and Applied Economics; Economics and Applied Informatics
Selected papers at the International Association of Agricultural Economists Conference in Beijing, China (2009)

Session chair and discussant

Agricultural and Applied Economics Association, Minneapolis, MN (2014) – session moderator
American Geophysical Union, San Francisco, CA (2013) – session chair and student paper competition judge leader
Western Economic Association International, San Francisco, CA (2012) – session chair and discussant
129th EAAE Seminar: Valuation Methods in Agro-food and Environmental Economics, Barcelona (2012) – session chair and discussant
International Conference for Fuzzy Systems and Neural Computing, Paris (2011) – session chair
International Conference on Social Sciences, Honolulu (2010) – session chair

SELECTED SEMINARS/MEETINGS

Presentation, Texas Water Development Board, Water Desalination – Experiences in the World and in Texas (2014)
Presentation, Water Forum III: Droughts and Other Extreme Weather Events, University of Texas at Austin (2013)
Poster presentation, Water for Food Conference, University of Nebraska, Lincoln (2013)
Research seminar, University of Missouri, Ag. & Applied Economics Dept. (2012)
Research seminar, University of California at Berkeley, Ag. & Resource Economics Dept. (2011)
AgEcon Annual Meeting of Agricultural & Applied Economics Association: Milwaukee, WI, Denver, CO, Pittsburgh, PA, Seattle, WA, Washington DC, Minneapolis, MN (2009-2014), Agricultural Economic Association/Allied Social Science Associations: Atlanta, GA, Chicago, IL, San Diego, CA, Philadelphia, PA (2010, 2012, 2013, 2014)
AERE Annual Summer Conference, Asheville, NC (2012)
Annual Meeting of American Evaluation Association, Anaheim, CA (2012)
International conferences of agrarian ministers and East-West Agrarian Forum, Berlin (2005-2009)
Mentoring Skills Program, German Federal Environmental Foundation, Osnabrück, Germany (2007)

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

Agricultural & Applied Economics Association (AAEA), American Economic Association (AEA), American Evaluation Association (AEA), Association of Environmental and Resource Economists (AERE), Western Economic Association International (WEAI), American Geophysical Union (AGU), International Association of Agricultural Economists (IAAE), European Association of Agricultural Economists (EAAE), European Association of Environmental and Resource Economists (EAERE), Agricultural Economics Society (AES), European Society of Rural Sociology, Texas Desalination Association, German Association of Agricultural Economics and Social Sciences

LANGUAGES

English (fluent), German (fluent), Spanish, French (beginner), Polish (native)