18 March 2024

CURRICULUM VITAE

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CITIZENSHIP U.S.A.

EDUCATIONAL BACKGROUND:

University of Minnesota, Minneapolis, MN, Ph.D., Economics (Major) and Mathematics
(Minor), Dec. 1975, Thesis Co-Advisors: Clifford Hildreth and Leonid Hurwicz;
Carleton College, Northfield, Minnesota, B.A. Cum Laude, Distinction in History,
Phi Beta Kappa, June 1968.

CURRENT PROFESSIONAL AFFILIATIONS:

Professor Emerita of Economics, ISU, 2018-present;
Courtesy Research Professor of Electrical & Computer Engineering, ISU, 2018-present;
Associate Editor, *Journal of Energy Markets*, Risk Journals, from July 2007;
Scientific Committee, *International Journal of Microsimulation*, from Sept 2015;
Advisory Board, *Economic Policy in Complex Environments (EPOC)*,
European Union (funded project), from June 2020;
Senior Member, *Institute of Electrical and Electronics Engineers (IEEE)*, from Oct 2018;
Member, *International Association for Energy Economics (IAEE)*, from April 2021;
Member, *Experts Panel: Transactive Systems Hybrid Economic-Control Theory*,
Pacific Northwest National Laboratory (PNNL), from April 2018;
Member, International Scientific Advisory Council for the *Waterloo Institute for
Complexity and Innovation (WICI)*, from October 2011;
Member, *IEEE Power and Energy Society*, from 2005;
Member, *Committee for the Status of Women in the Econ. Prof. (CSWEP)*, from 2001;
Member, *Society for Computational Economics (SCE)*, from 1995;
Member, *American Economic Association (AEA)*, from 1975;
Contact Liaison, *Special Interest Group on Agent-Based Computational Economics (ACE)*,
Society for Computational Economics (SCE), from Fall 1999.

PAST PROFESSIONAL AFFILIATIONS:

Research Professor of Economics, ISU, March 2017- Nov. 2023;

Professor of Economics, ISU, 1990-2017;

Courtesy Professor of Mathematics, ISU, 1990-2017;

Courtesy Professor of Electrical & Computer Engineering, ISU, 2009-2017;

Graduate Faculty Member, Human-Computer Interaction Program, ISU, 2003-2017;

Professor of Economics, University of Southern California, Sept. 1989 - Aug. 1990;

Assoc. Professor of Economics, University of Southern California, Sept.1981-Aug.1989;

Visiting Researcher, National Bureau of Economic Research, Cambridge, Massachusetts,
   Sept. 1981 - Aug. 1982;

Visiting Assistant Professor, University of Minnesota, Mpls, March.1980-Aug.1980;

Assistant Professor, University of Southern California, Sept. 1975 - Aug. 1981;

Associate Editor, *Journal of Economic Dynamics and Control*, North-Holland/Elsevier,
   July 2000 through March 2018;

Editorial Board, *Journal of Economic Interaction and Coordination*, Springer,
   July 2005 to December 2017;

Associate Editor, *Journal of Public Economic Theory*, Basil-Blackwell,
   April 1997 to June 2006;

Associate Editor, *IEEE Transactions on Evolutionary Computation*, IEEE Neural
   Network Council, July 1996 to December 2002;

Associate Editor, *Applied Mathematics and Computation*, Elsevier (North Holland),
   June 1991 to March 2008;

Contributing Co-Editor, Complexity-at-Large Section, *Complexity*, John Wiley & Sons.,
   Nov. 1997 to Aug. 2004;

Guest Editor, Special Issue on Agent-Based Computational Economics, *Journal of
   Economic Dynamics and Control* 25/3-4 (2001);

Guest Editor, Special Issue on Agent-Based Computational Economics, *Computational
   Economics*, Vol. 18(1), October 2001;

Guest Co-Editor, Special Issue on Transactive Energy Systems, *IEEE Transactions
   on Power Systems*, October 2016 to March 2018;

Guest Editor, Special Issue on Agent-Based Modeling of Evolutionary Economic Systems,
   IEEE Transactions on Evolutionary Computation Vol. 5(5), October 2001;

Guest Editor, Special Issue Dedicated to Robert E. Kalaba, *Applied Mathematics and
   Computation*, Vol. 45(2):Part II, September 1991;

Consultant, Los Alamos National Laboratory, New Mexico, Nov. 2002 - Oct. 2004;

Member, Institute of Electrical and Electronics Engineers (IEEE), 2005-2018;

Member, Committee on Organizational Modeling from Individuals to Societies,
   National Research Council of the National Academies, March 2005 to March 2008;

Advisory Council Member (Elected), *Society for Computational Economics (SCE)*,
   Jan. 1997 - Jan. 2000, and March 2001 - Jan. 2004.

PRIMARY RESEARCH AREAS:

Electric power market design;
Agent-based Computational Economics (ACE);
Dynamic coupled physical and social systems;
Learning in open-ended dynamic multi-market contexts;
Evolution of economic networks with choice & refusal of trading partners;
Optimality and efficiency in open-ended dynamic economies;
Flexible Least Squares (FLS) (a multicriteria optimization method for model specification);
Adaptive computation (nonlocal sensitivity analysis, eigenvalue/eigenvector tracking,
   automatic differentiation, adaptive homotopy continuation);
Learning via criterion filtering (temporal difference/Q-learning).

CURRENT RESEARCH TOPICS:

A new swing-contract design for grid-supported centrally-managed electric power markets;
Transactive energy system designs for integrated transmission and distribution systems;
Power markets in transition: Agent-based modeling tools for transactive energy support;
Agent-based computational economics: A constructive approach to economic theory.

HONORS:

Keynote Address, Social Simulation Conference (virtual), sponsored by the European
   Social Simulation Association (ESSA), September 20-24, 2021.
Recipient of the 2020 David A. Kendrick Distinguished Service Award,
   Society for Computational Economics (SCE)
Outstanding Reviewers for 2020 Award, *IEEE Transactions on Power Systems*
Keynote Address, Computational Social Science Society of the Americas (CSS 18),
   Santa Fe, NM, Oct 25-28, 2018
Keynote Address, Duke Forest Conference, Durham, NC, November 11-13, 2016
Plenary Address, International Economic Science Association (IESA) Meeting,
   Arlington, Virginia, June 25-28, 2009.
Plenary Address, AGENT 2007, Northwestern University, November 17, 2007.
Invited Organizer, ACE Tutorial, Allied Social Science Association (ASSA) Meetings,
   Chicago, January 2007.
Plenary Address, 12th International Conference on Computing in Economics and Finance
   (CEF'06), Society for Computational Economics (SCE), Cyprus, June 23, 2006.
Plenary Panel Address, Workshop on Dynamic Data Driven Application Simulation
   (DDDAS), National Science Foundation, Washington, D.C., January 19-20, 2006.
Member, Committee on Organizational Modeling from Individuals to Societies,
   National Research Council of the National Academies, March 2005 - March 2008.
Plenary Address, International Workshop on Agent-Based Models for Economic Policy
   Design, ZiF, Bielefeld University, Germany, June 30-July 2, 2005.
Distinguished Lecture Series, sponsored by the Computation Institute and the
   James Franck Institute, University of Chicago, October 27-29, 2003;

HONORS...CONTINUED:

Keynote Address, Workshop on Labor and Industrial Dynamics: The Agent-Based Computational Economics Approach, Moncalieri, Italy, October 4, 2003;

Distinguished Lecture, James Franck Institute, U of Chicago, 22 May 2002

Plenary Address, Sixth Joint Conference on Information Sciences, Research Triangle Park, North Carolina, March 10, 2002;

National Academy of Sciences Panel Discussant, Sackler Colloquium, Irvine, CA, October 4-6, 2001;

Keynote Address, First International Workshop on Computational Intelligence in Economics and Finance, Atlantic City, NJ, February 28, 2000.

CONTRACTS, GRANTS, AND FELLOWSHIPS:

External Expert Advisor, Colciencias, Modalidad Programas, 3/2020-2/2023: "Valuing Variability in the Colombian Electricity Market," $372,000;

PI, Power Systems Engineering Research Center (PSERC), 7/1/2019-6/30/2021: "Market and Control Mechanisms Enabling Flexible Service Provision by Grid-Edge Resources in End-to-End Power Systems," $220,000;

Co-PI, Office of Electricity Delivery and Energy Reliability (OE), U.S. Department of Energy (DOE), 1/1/2017-9/30/2020: "Flexible Service Contracting for Risk Management within Integrated Transmission and Distribution Systems," $433,054;

PI, Pacific Northwest National Laboratory (PNNL), 3/19/2018 - 7/31/2019: "Regional Transactive Systems: Reduced-Order Bulk System & Wholesale Market," $100,000;

PI, Pacific Northwest National Laboratory (PNNL), 4/1/2017 - 2/28/2019: "Development of an Integrated Transmission and Distribution System to Evaluate Transactive Energy Systems," $210,252;

Co-PI, Iowa Energy Center (IEC), 9/2016-9/2017: "Resilience Enhancement of Electric Power Systems and Associated Infrastructures," $124,579;

Scientific Committee, NSF, 9/2016 - 2/2018: "Agent-Based Models in the Social, Human-Environment, and Life Sciences," $94,996;

PI, Electric Power Research Center, 8/2015 - 8/2016: "Integrated Distribution and Transmission Effects of Demand-Response Initiatives," $41,191;

Co-PI, ISU LAS Signature Research Initiative Award, 5/10/2013-5/9/2016: "Water and Climate Change: Building Community Consensus for a Sustainable Future for Iowa and the World," $329,509;

Co-PI, Advanced Research Projects Agency - Energy (ARPA-E), Department of Energy, 2/24/2012-1/30/2015: "Improved Power System Operations Using Advanced Stochastic Optimization," $3.1 Million;

PI, Sandia National Laboratory, 7/2011-7/2013: "Market Design for Energy, Ancillary, and Reliability Services in Wholesale Electric Power Markets," $163,183;

PI, Electric Power Research Center, 8/2010-8/2013: "Integrated Retail and Wholesale Power System Operation with Smart-Grid Functionality," $223,000;

CONTRACTS, GRANTS, AND FELLOWSHIPS...CONTINUED:

PI, Department of Energy at Pacific Northwest National Laboratory, 7/1/2009-6/30/2012: "An Agent-Based Test Bed for the Integrated Experimental Study of Retail and Wholesale Power Market Designs," $120,871;

PI, Electric Power Research Center Grant, 8/2009-8/2012: "Financial and Operational Risk Management for Restructured Wholesale Power Markets," $91,952.

Project Advisory Board, National Science Foundation Grant, 9/1/08-8/31/12: "21st Century National Energy and Transportation Infrastructures: Balancing Sustainability, Costs, and Resiliency (NETSCORE-21)," PI: Jim McCalley (ISU ECpE Department), $2 Million;

PI, Electric Power Research Center Grant, 8/2007-8/2010: "Forecasting Grid Congestion for Transmission Grid Operation and Investment," $153,921;

PI, Electric Power Research Center Grant, 8/2006-8/2009: "Testing the Efficiency and Reliability Impacts of MISO's Midwest Market Initiative," $75,000.

Co-PI, National Science Foundation. Three-Year Award: (9/1/05-8/31/08): "Decision Models for Bulk Energy Transportation Networks," Human and Social Dynamics Competition (Decision Making, Risk, and Uncertainty), $608,000;

Electricity Consultant, Contract C-8313, Los Alamos National Laboratory, 10/2002 - 9/2004;

ACE Course Development Grant (Continuation Award) for Econ 308 (Agent-Based Comp. Economics), ISU Computer Advisory Committee for LAS, Spring 2004, $3,708;

ACE Course Development Grant for Econ 308x (Agent-Based Computational Economics, Experimental Course), ISU Computer Advisory Committee for LAS, Spring 2003, $3,600;

Member, Human-Computer Interaction Initiative, Funded Program Proposal, ISU, Jan. 2003;

Co-PI, NSF, 9/1/98-8/31/01: "Computer Simulation of an Electric Marketplace Using Artificial Adaptive Agents," Computer and Intelligent Systems Program, $309,683;

Member, nine-member ISU research team taking part in a 4-university Advanced Power Technologies (APT) Consortium, funded by the Electric Power Research Institute (EPRI) and the Department of Defense, 5/99-5/2004, Total Original Award: $5.3 million (ISU share: $1.48 million);

Co-PI, ISU University Research Grant, May 1991: "A Sequential Game Computer Simulation Study of AIDS Transmission," $7,000.00;

PI, ISU Competitive Research Equipment Grant Program, Jan. 1991: "Lab Equipment for Experimental Work in Agricultural and General Economics," $8,000.00;

PI, NSF, 6/1/78-5/31/80: "Empirical Dyn. Prog. Methods for Adaptive Control," $79,994.00;

NDEA Title IV Fellowship, 1973;

Woodrow Wilson Dissertation Fellow, 1972;

AAUW Dissertation Fellowship, 1972.

TEACHING AND OFFICIAL ADVISING ACTIVITIES:

Electrical and Computer Power Engineering (PhD/M.S. Advising);
Economics (PhD/M.S. Advising);
Restructuring of Wholesale Electric Power Markets (Grad/Undergrad Teaching);
Agent-Based Computational Economics (Undergrad Teaching);
Macroeconomics (Grad/Undergrad Teaching);
Financial Markets and Monetary Economics (Grad/Undergraduate Teaching);
Steering Committee, ISU Graduate Minor in Complex Adaptive Systems;
Freshman Honors Program Mentor (S06);
Undergrad Advisor (F'05-S'09).

PhD/M.S. MAJOR OR CO-MAJOR ADVISOR: (From 2005, Initial Placements)

Rui Cheng, ECpE PhD 2023, Assistant Prof., North China Electric Power Univ., Beijing;
Wanning Li, ECpE PhD 2023, Clean Energy Advisor, Southern Cal. Ed., Rosemead, CA;
Swathi Battula, ECpE PhD 2021, Assistant Professor of EE, IIT Kanpur, India;
Dheepak Krishnamurthy, ECpE MS 2017, Research Engineer, NREL, Golden, CO;
Dong-Jin Pyo, Econ PhD 2015, Economist, Financial Supervisory Service, Seoul, KR;
Deung-Yong Heo, Econ PhD 2015, Economist, Korea Institute of Local Finance, Seoul, KR;
Ekaterina Sinitskaya, Econ PhD 2014, Post Doc, Stanford University, Stanford, CA;
Jiaqi Ge, Econ PhD 2014, Soc. Sys. Sim. Mod. James Hutton Res. Inst., Aberdeen, Scotland;
Auswin George Thomas, ECpE MS 2012, Power Systems Engineer, Siemens, Mpls., MN;
Tim Lennell, Econ MS 2012, Revenue Economist, Nebraska Dept. of Revenue, Lincoln, NE;
Abhishek Somani, Econ PhD 2012, Smart Grid Energy Analyst, PNNL, Richland, WA;
Huan Zhou, Econ PhD 2011, Market Analyst, ISO-New England, Holyoke, MA;
Qun Zhou, ECpE PhD 2011, Power Systems Engineer, Alstom Inc., Redmond, WA;
Nanpeng Yu, ECpE PhD 2011, Senior Financial Analyst, Southern Cal. Ed., Rosemead, CA;
Hongyan Li, ECpE PhD 2009, Consulting Engineer, ABB Inc., Raleigh, NC;
Harold Salazar, ECpE MS 2008, Associate Professor, Technological U. of Pereira, Colombia;
Haifeng Liu, Econ MS 2008, Transmissions Analyst, CAISO, Folsom, CA;
Mridul Pentapalli, Econ MS 2008, Software Developer, Mediafour Co., Des Moines, IA;
Junjie Sun, Econ PhD 2007, Senior Fin. Economist, OCC, U.S. Treasury, Washington, D.C.;
Deddie Koesrindartoto, Econ PhD 2006, Ass't Prof. Econ, Bandung Inst. Tech., Indonesia;
Charles J. Gieseler, CS MS 2005, Software Developer, Sandia National Laboratories, NM.

GENERAL RESOURCE WEBSITES MAINTAINED:

On-Line Guide for Newcomers to Agent-Based Modeling in the Social Sciences
(with Robert Axelrod): https://www2.econ.iastate.edu/tesfatsi/abmread.htm

Agent-Based Computational Economics:
https://www2.econ.iastate.edu/tesfatsi/ace.htm

Formation of Economic and Social Networks:
https://www2.econ.iastate.edu/tesfatsi/netgroup.htm;

Open-Source Software for Electricity Market Research, Teaching, and Training:
https://www2.econ.iastate.edu/tesfatsi/ElectricOSS.htm

General Resources on Electricity Restructuring:
https://www2.econ.iastate.edu/tesfatsi/epres.htm

General Resources on Macroeconomics and Financial Economics:
https://www2.econ.iastate.edu/tesfatsi/sources.htm

OPEN-SOURCE SOFTWARE RELEASES:

AMES Market Package (Java/Python): *A*gent-Based *M*odeling of *E*lectricity *S*ystems:
Homepage: https://www2.econ.iastate.edu/tesfatsi/AMESMarketHome.htm

AMES V5.0 (Java/Python): Latest AMES release (2020). GitHub Repository:
https://github.com/ames-market/AMES-V5.0

DCOPFJ (Java): A DC Optimal Power Flow solver. Homepage:
https://www2.econ.iastate.edu/tesfatsi/DCOPFJHome.htm

Eight-Zone ISO-NE Test System (Java/Python): An eight-zone test system for an
ISO-managed wholesale electric power market based on ISO New England data,
implemented via AMES V4.0: https://bitbucket.org/kdheepak/eightbustestbedrepo

ERCOT Test System (Java/Python): An agent-based test system modeling wholesale power
market operations in the Electric Reliability Council of Texas (ERCOT), implemented
via AMES V5.0. https://github.com/ITDProject/ERCOTTestSystem

FLS (Fortran): Flexible Least Squares (FLS) for time-varying linear regression.
Homepage: https://www2.econ.iastate.edu/tesfatsi/FLSHome.htm

GFLS (Fortran): Generalized Flexible Least Squares (GFLS), a multicriteria optimization
method for the specification of approximately linear systems. Homepage:
https://www2.econ.iastate.edu/tesfatsi/FLSHome.htm

ITD Project/Household Formulation (Python): GitHub Repository:
https://github.com/ITDProject/HouseholdFormulationRepository

ITD TES Platform V2 (Co-Simulated, Java/Python/C++/C): GitHub Repository:
https://github.com/ITDProject/ITDTESPlatform

MAM (Fortran): Multicriteria Associative Memory (MAM) solver for nonlinear estimation.
Homepage: https://www2.econ.iastate.edu/tesfatsi/MAM.htm

NASA (Fortran): Nonlocal Automated Sensitivity Analysis. Homepage:
https://www2.econ.iastate.edu/tesfatsi/NASAHome.htm

TNGLab (C++/Visual Basic): Trade Network Game Laboratory. Homepage:
https://www2.econ.iastate.edu/tesfatsi/TNGHome.htm

OPEN-SOURCE SOFTWARE RELEASES...CONTINUED:

WACCShed (Java): Agent-based platform permitting the study of *W*ater-use *A*nd *C*limate-*C*hange management for a water*SHED*. Bitbucket Repository: https://bitbucket.org/waccproject/waccshedsoftwareplatform

BOOKS:

Leigh Tesfatsion (2021). *A New Swing-Contract Design for Wholesale Power Markets*, 288pp., John Wiley & Sons (IEEE Press Series on Power Eng.), Hoboken, NJ.

Leigh Tesfatsion & Kenneth L. Judd, Eds. (2006). *Handbook of Computational Economics 2: Agent-Based Computational Economics*, Handbooks in Economics Series, 16 Chapters, 904pp., North Holland (Elsevier), Amsterdam, the Netherlands.

Committee on Organization Modeling from Individuals to Societies (2008). *Behavioral Modeling and Simulation: From Individuals to Societies*, 403pp., National Research Council of the National Academies, The National Academies Press, Washington, D.C.

PUBLICATIONS IN JOURNALS, BOOKS, AND PROCEEDINGS:

Note: Non-refereed publications are marked by an asterisk (*).

142. Leigh Tesfatsion, "Locational Marginal Pricing: A Fundamental Reconsideration," *IEEE Open-Access Journal of Power and Energy*, Volume 11, February 2, 2024, 104-116. DOI: 10.1109/OAJPE.2024.3361751. Electronic ISSN: 2687-7910.

141. Rui Cheng, Leigh Tesfatsion, and Zhaoyu Wang, "A Consensus-Based Transactive Energy Design for Unbalanced Distribution Networks," *IEEE Transactions on Power Systems*, Volume 38, Issue 1, 2023, 114-128.

140. (Invited Refereed Perspective) Leigh Tesfatsion, "Agent-Based Computational Economics: Overview and Brief History," Ch. 4 (pp. 41–58) in: R. Venkatachalam (Ed.), *Artificial Intelligence, Learning and Computation in Economics and Finance*, Springer Cham, February 2023.

139. Swathi Battula, Leigh Tesfatsion, and Zhaoyu Wang, "A Customer-Centric Approach to Bid-Based Transactive Energy System Design," *IEEE Transactions on Smart Grid*, Volume 11, Issue 6, 2020, 4996-5008. DOI: 10.1109/TSG.2020.3008611

138. Swathi Battula, Leigh Tesfatsion, and Thomas E. McDermott, "An ERCOT Test System for Market Design Studies," *Applied Energy*, Volume 275, October, 2020, 115182. DOI: 10.1016/j.apenergy.2020.115182

137. Wenwu Tang, Volker Grimm, Leigh Tesfatsion, Eric Shook, David Bennett, Li An, Zhaoya Gong, and Xinyue Ye, "Code Reusability and Transparency of Agent-Based Modeling: A Review from a Cyberinfrastructure Perspective," Ch. 6 (pp. 115-134) in Wenwu Tang and Shaowen Wang (Eds.), *High Performance Computing for GeoSpatial Applications*, Vol. 23, Geotechnologies and the Environment Book Series, Springer, 2020.

136. Shanshan Ma, Zhaoyu Wang, and Leigh Tesfatsion, "Swing Contracts with Dynamic Reserves for Flexible Service Management," *IEEE Transactions on Power Systems*, Volume 34, Issue 5, 2019, 4024-4037.

135. Hieu Trung Nguyen, Swathi Battula, Rohit Reddy Takkala, Zhaoyu Wang, and Leigh Tesfatsion, "An Integrated Transmission and Distribution Test System for Evaluation of Transactive Energy Designs," *Applied Energy*, Volume 240, 2019, 666-679.

134. Steven Manson, Li An, Keith C. Clarke, Alison Heppenstall, Jennifer Koch, Brittany Krzyzanowski, Frazer Morgan, David O'Sullivan, Bryan C. Runck, Eric Shook, and Leigh Tesfatsion, "Methodological Issues of Spatial Agent-Based Models," *Journal of Artificial Societies and Social Simulation* 23(1):3, 2019. DOI: 10.18564/jasss.4174

133. Auswin George Thomas and Leigh Tesfatsion, "Braided Cobwebs: Cautionary Tales for Dynamic Pricing in Retail Electric Power Markets," *IEEE Transactions on Power Systems*, Volume 33, Issue 6, 2018, pp. 6870-6882.

132. (Invited Refereed Chapter) Wanning Li and Leigh Tesfatsion, "A Swing-Contract Market Design for Flexible Service Provision in Electric Power Systems." Chapter 5 (pp. 105-127) in: Sean Meyn, Tariq Samad, Ian Hiskens, and Jakob Stoustrup (Eds.), *Energy Markets and Responsive Grids: Modelling, Control, and Optimization*, The IMA Volumes in Mathematics and its Applications Series, Springer, 2018.

131. (Invited Refereed Chapter) Leigh Tesfatsion, "Electric Power Markets in Transition: Agent-Based Modeling Tools for Transactive Energy Support." Chapter 13 (pp. 715-766) in Hommes, C., LeBaron, B., Eds. *Handbook of Computational Economics 4: Heterogeneous Agent Models*. Handbooks in Economics Series. North Holland (Elsevier), Amsterdam, the Netherlands, 2018.

130. (Invited Refereed Article) Leigh Tesfatsion, "Modeling Economic Systems as Locally-Constructive Sequential Games," *Journal of Economic Methodology*, Vol. 24, Issue 4, 2017, 384-409.

129. Leigh Tesfatsion, Chris R. Rehmann, Diego S. Cardoso, Yu Jie, and William J. Gutowski, "An Agent-Based Platform for the Study of Watersheds as Coupled Natural and Human Systems," *Environmental Modelling & Software*, Vol. 89, March, 2017, 40-60. http://dx.doi.org/10.1016/j.envsoft.2016.11.021

128. (Invited Refereed Article) Leigh Tesfatsion, "Elements of Dynamic Economic Modeling: Presentation and Analysis," *Eastern Economic Journal*, Vol. 43, No. 2, 2016, 192-216. http://dx.doi.org/10.1057/eej.2016.2

127. Wanning Li and Leigh Tesfatsion, "Market Provision of Flexible Energy/Reserve Contracts: Optimization Formulation," *Proceedings of the IEEE Power and Energy Society General Meeting*, Boston, MA, July 17-21, 2016 (electronic).

126. Dheepak Krishnamurthy, Wanning Li, and Leigh Tesfatsion, "An 8-Zone Test System based on ISO New England Data: Development and Application," *IEEE Transactions on Power Systems*, Vol. 31, Issue 1, January, 2016, 234-246.

125. Deung-Yong Heo and Leigh Tesfatsion, "Facilitating Appropriate Compensation of Electric Energy and Reserve through Standardized Contracts with Swing," *Journal of Energy Markets*, Vol. 8, No. 4, December, 2015, 93-121.

124. Ekaterina Sinitskaya and Leigh Tesfatsion, "Macroeconomies as Constructively Rational Games," *Journal of Economic Dynamics and Control*, Vol. 61, December, 2015, 152-182.

123. Wanning Li, Dheepak Krishnamurthy, and Leigh Tesfatsion, "Systematic Testing and Comparison of Deterministic and Stochastic Unit Commitement on an 8-Zone Test Case Based on ISO New England Data," *Innovative Smart Grid Technologies Conference Proceedings* 2015 (electronic).

122. Qun Zhou, Leigh Tesfatsion, Chen-Ching Liu, Ron F. Chu, and Wei Sun, "A Nash Approach to Planning Merchant Transmission for Renewable Resource Integration," *IEEE Trans. on Power Systems*, Vol. 8, No. 3, Aug. 2013, 2086-2100.

121. Auswin George Thomas, Pedram Jahangiri, Di Wu, Chengri Cai, Huan Zhao, Dionysios C. Aliprantis, and Leigh Tesfatsion, "Intelligent Residential Air Conditioning System with Smart Grid Functionality," *IEEE Transactions on Smart Grid*, Vol. 3, No. 4, December, 2012, 2240-2251.

120. (Invited Refereed Contribution) Pedram Jahangiri, Di Wu, Wanning Li, Dionysios C. Aliprantis, and Leigh Tesfatsion, "Development of an Agent-Based Distribution Test Feeder with Smart-Grid Functionality," *Proceedings of the IEEE Power and Energy Society General Meeting*, San Diego, CA, July 22-26, 2012 (electronic).

119. (Invited Refereed Contribution) Auswin George Thomas, Chengrui Cai, Dionysios C. Aliprantis, and Leigh Tesfatsion, "Effects of Price-Responsive Residential Demand on Retail and Wholesale Power Market Operations," *Proceedings of the IEEE Power and Energy Society General Meeting*, San Diego, CA, July 22-26, 2012 (electronic).

118. (Invited Refereed Article) Hongyan Li and Leigh Tesfatsion, "Co-Learning Patterns as Emergent Market Phenomena: An Electricity Market Illustration," *Journal of Economic Behavior and Organization* Vol. 82, Issue 2-3, 2012, 395-419.

117. Nanpeng Yu, Leigh Tesfatsion, and Chen-Ching Liu, "Financial Bilateral Contract Negotiation in Wholesale Electric Power Markets using Nash Bargaining Theory," *IEEE Transactions on Power Systems*, Vol. 27, No. 1, 2012, 251-267.

116. Qun Zhou, Leigh Tesfatsion, and Chen-Ching Liu, "Short-Term Congestion Forecasting in Wholesale Power Markets," *IEEE Transactions on Power Systems*, Vol. 26, Issue 4, 2011, 2185-2196.

115. (Invited Refereed Chapter) Paul L. Borrill and Leigh Tesfatsion, "Agent-Based Modeling: The Right Mathematics for the Social Sciences?," Chapter 11 (pp. 228-258) in John Bryan Davis and D. Wade Hands (eds.), *Elgar Companion to Recent Economic Methodology*, Edward Elgar, New York, NY, 2011.

114. (Invited Refereed Paper) Chengrui Cai, Pedram Jahangiri, Auswin George Thomas, Huan Zhao, Dionysios C. Aliprantis, and Leigh Tesfatsion, "Agent-Based Simulation of Distribution Systems with High Penetration of Photovoltaic Generation," *Proceedings of the IEEE Power and Energy Society General Meeting*, Detroit, MI, 2011 (electronic).

113. (Invited Refereed Contribution) Huan Zhao, Auswin George Thomas, Pedram Jahangiri, Chengrui Cai, Leigh Tesfatsion, and Dionysios C. Aliprantis, "Two-Settlement Electric Power Markets with Dynamic-Price Customers," *Proceedings of the IEEE Power and Energy Society General Meeting*, Detroit, MI, 2011 (electronic).

112. * (Invited Paper) Hongyan Li, Junjie Sun, and Leigh Tesfatsion, "Testing Institutional Arrangements via Agent-Based Modeling: A U.S. Electricity Market Example," pp. 135-158 in H. Dawid and W. Semmler (Eds.), *Computational Methods in Economic Dynamics*, Dynamic Modeling and Econometrics in Economics and Finance 13, Springer-Verlag Berlin Heidelberg, 2011.

111. * (Invited Article) Leigh Tesfatsion, "Agent-Based Modeling and Institutional Design," *Eastern Economic Journal*, Vol. 37, Issue 1, 2011, 13-19.

110. Hongyan Li and Leigh Tesfatsion, "ISO Net Surplus Collection and Allocation in Wholesale Power Markets under Locational Marginal Pricing," *IEEE Transactions on Power Systems*, Vol. 26, Issue 2, 2011, 627-641.

109. (Invited Refereed Contribution) Nanpeng Yu, Abhishek Somani, and Leigh Tesfatsion, "Financial Risk Management in Restructured Wholesale Power Markets: Concepts and Tools," *Proceedings of the IEEE Power and Energy Society General Meeting*, Minneapolis, MN, July, 2010 (electronic).

108. (Invited Refereed Contribution) Qun Zhou, Leigh Tesfatsion, and Chen-Ching Liu, "Global Sensitivity Analysis for the Short-Term Prediction of System Variables," *Proceedings of the IEEE Power and Energy Society General Meeting*, Minneapolis, MN, July, 2010 (electronic).

107. (Invited Refereed Contribution) Dionysios Aliprantis, Scott Penick, Leigh Tesfatsion, and Huan Zhao, "Integrated Retail and Wholesale Power System Operation with Smart-Grid Functionality," *Proceedings of the IEEE Power and Energy Society General Meeting*, Minneapolis, MN, July, 2010 (electronic).

106. Hongyan Li and Leigh Tesfatsion, "Development of Open Source Software for Power Market Research: The AMES Test Bed," *Journal of Energy Markets*, Vol. 2, No. 2, Summer, 2009, 111-128.

105. (Invited Refereed Contribution) Leigh Tesfatsion, "Auction Basics for Wholesale Power Markets: Objectives and Pricing Rules," *Proceedings of the IEEE Power and Energy Society General Meeting*, Calgary, Alberta, CA, July 26-30, 2009 (electronic)

104. (Invited Refereed Contribution) Hongyan Li and Leigh Tesfatsion, "The AMES Wholesale Power Market Test Bed: A Computational Laboratory for Research, Teaching, and Training," *Proceedings of the IEEE Power and Energy Society General Meeting*, Calgary, Alberta, CA, July 26-30, 2009 (electronic)

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Leigh Tesfatsion, "Flexible Service Contracting for Risk Management within Integrated Transmission and Distribution Systems," DOE/OE Transmission Reliability, Reliability & Markets Program Peer Review Meeting, Sphinx on K, Washington, D.C., June 11, 2019.

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Leigh Tesfatsion, "Theory Development Through Agent-Based Modeling" (webinar), Symposium I: State of the Art & Epistemological Perspectives on Theory Development Through Agent-Based Modeling, Hannover, Germany, July 4-6, 2018.

Leigh Tesfatsion, "Swing Contract Transactive Energy System Designs for End-to-End Power Systems," Hybrid Economic-Control Theory (HECT) Workshop, MIT, Cambridge, MA, June 11, 2018.

Leigh Tesfatsion, "Electric Power Markets in Transition: Agent-Based Modeling Tools for Transactive Energy Support," virtual, Invenia Labs, Cambridge, UK, March 22, 2018.

Leigh Tesfatsion, "Modeling Coupled Natural and Human Systems as Locally Constructive Sequential Games" (webinar), ABM Seminar, U of Minnestota, Mpls., November 8, 2017.

Leigh Tesfatsion (presenter) and Hieu Trung Nguyen, "TES Designs for End-to-End Power Systems with Massively Distributed Energy Resources" (webinar), PNNL TESP Workshop, Pacific Northwest National Laboratory (PNNL), Richland, WA, October 16, 2017.

Leigh Tesfatsion, "Agent-Based Modeling Tools for Electric Power Market Design: Implications for Macro/Financial Policy," Heterogeneous Agents and Agent-Based Modeling: The Intersection of Policy and Research, Joint Conference of the Office of Financial Research, Brandeis University, and the Bank of England, U.S. Treasury, Washington, D.C., September 21-22, 2017.

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Leigh Tesfatsion, "Agent-Based Test Beds for the Study of Watershed Sustainability: A Squaw Creek Illustration," Colloquium on Sustainable Agriculture, Iowa State University, Ames, IA, April 27, 2016.

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Leigh Tesfatsion (presenter) and Deung-Yong Heo, "Facilitating Appropriate Compensation of Electric Energy and Reserve Through Standardized Contracts with Swing," Panel Session: Effects of Contract Design on Electricity Market Performance with Increased Penetration of Distributed Energy Resources and Variable Generation, IEEE Power and Energy Society General Meeting, Denver, CO, July 26-30, 2015.

Auswin Thomas (presenter) and Leigh Tesfatsion, "Integrated Transmission and Distribution Effects of Demand-Side Participation," Panel Session: Wholesale and Retail Market Interaction Requirements for Effective Demand-Side Participation, IEEE Power and Energy Society Meeting, Denver, CO, July 26-30, 2015.

Auswin Thomas (presenter) and Leigh Tesfatsion, "Agent-Based Test Beds for the Integrated Study of Transmission-Distribution Operations," Transactive Energy Challenge Preparatory Workshop, NIST, Gaithersburg, Maryland, March 24-25, 2015.

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Auswin Thomas (presenter) and Leigh Tesfatsion, "An Agent-Based Test Bed for Integrated Retail and Wholesale Power System Operations," ISU-TNO Webinar, October 17, 2014.

Leigh Tesfatsion, "A Framework for Flexible Contracts in Wholesale Power Markets," GridWise Architecture Council Meeting & Workshop, California Independent System Operator, Folsom, CA, September 10-11, 2014.

Leigh Tesfatsion and Auswin Thomas (presenter), "Adventures in Agent-Based HPC Test Bed Development for Electric Power Markets," Invited Presentation, Panel Session: Benefits and Challenges of Employing Multi-Agent Systems, IEEE Power and Energy Society General Meeting, Washington, D.C., July 27-31, 2014.

Leigh Tesfatsion (presenter) and Deung-Yong Heo, "Facilitating Appropriate Compensation of Electric Energy and Reserve Through Standardized Contracts with Swing," 2014 Technical Conference on Increasing Real-Time and Day-Ahead Market Efficiency Through Improved Software, U.S. Federal Energy Regulatory Commission (FERC), Washington, D.C., June 23-25, 2014.

Leigh Tesfatsion, "Situated Mathematics: Agent-Based Test Beds for Mathematics in Practice," Mathematics for New Economic Thinking, INET Workshop, Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada, October 31-November 2, 2013.

Auswin G. Thomas (presenter), Dheepak Krishnamurthy, Leigh Tesfatsion, and Sean Mooney, "Multi-Agent System Capabilities of the AMES Wholesale Power Market Test Bed", IEEE Power & Energy Society General Meet., Vancouver, Canada, July 21-25, 2013.

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Leigh Tesfatsion, "Energy and Reserve Procurement Through Linked Forward Markets: Safe Harbor for the Promised Land," Department of Energy (DOE), Washington D.C., September 17, 2012.

Auswin G. Thomas (presenter) and Leigh Tesfatsion, "Effects of Price-Responsive Residential Demand on Retail and Wholesale Power Market Operations," IEEE Power and Energy Society General Meeting, San Diego, CA, July 22-27, 2012.

Pedram Jahangiri (presenter), Di Wu, Wanning Li, Dionysios C. Aliprantis, and Leigh Tesfatsion, "Development of an Agent-Based Distribution Test Feeder with Smart-Grid Functionality," IEEE Power and Energy Society General Meeting, San Diego, CA, July 22-27, 2012.

Ekaterina Sinitskaya (presenter) and Leigh Tesfatsion, "A Small-Scale Agent-Based Model with Optimizing Agents versus Agents Driven by Simple Rules," Western Economic Association International, San Francisco, CA, June 29-July 3, 2012.

Abhishek Somani (presenter) and Leigh Tesfatsion, "Wind Power Trading by Firms with Mixed Generation Portfolios," Institute for Operations Research and Management Science (INFORMS) meeting, Charlotte, North Carolina, November 2011.

Chengrui Cai (presenter), Pedram Jahangiri, Auswin George Thomas, Huan Zhao, Dionysios C. Aliprantis, and Leigh Tesfatsion, "Agent-Based Simulation of Distribution Systems with High Penetration of Photovoltaic Generation," IEEE Power and Energy Society General Meeting, Detroit, MI, July 24-30, 2011.

Huan Zhao (presenter), Auswin George Thomas, Pedram Jahangiri, Chengrui Cai, Leigh Tesfatsion, and Dionysios C. Aliprantis, "Two-Settlement Electric Power Markets with Dynamic-Price Customers," IEEE Power and Energy Society General Meeting, Detroit, MI, July 24-30, 2011

Leigh Tesfatsion, "Experimental Study of Restructured Electric Power Markets via Agent-Based Test Beds," Pacific Northwest National Laboratory," Richland, WA, June 18th, 2011.

Huan Zhao (presenter) and Leigh Tesfatsion, "Wind Power Trading by Firms with Mixed Generation Portfolios," 17th International Conference on Computing in Economics and Finance (CEF'11), San Francisco, June 29-July 1, 2011.

Leigh Tesfatsion, "Integrated Retail and Wholesale Power System Operations with Smart-Grid Functionality," NSF Workshop: Engineering and Social Response to the Energy-Climate Nexus, NSF Stafford II, Arlington, VA, June 23-24, 2011.

Leigh Tesfatsion, "From Human-Subject Experiments to Computational-Agent Experiments (and Everything In Between)," Department of Economics, University of New Hampshire, March 25, 2011.

Leigh Tesfatsion, "From Human-Subject Experiments to Computational-Agent Experiments (and Everything In Between)," ISU Behavioral/Experimental Economics Workshop, February 17, 2011.

Leigh Tesfatsion, "ISO Net Surplus Collection and Allocation in North American Restructured Electric Power Markets," Allied Social Science Association/American Economic Association (ASSA/AEA) Meetings, Denver, Colorado, January 7-9, 2011.

Nanpeng Yu (co-presenter), Abhishek Somani (co-presenter), and Leigh Tesfatsion, "Financial Risk Management in Restructured Wholesale Power Markets: Concepts and Tools," IEEE Power and Energy Society General Meeting, Minneapolis, MN, July 25-29, 2010.

Qun Zhou (presenter), Leigh Tesfatsion, and Chen-Ching Liu, "Global Sensitivity Analysis for the Short-Term Prediction of System Variables," IEEE Power and Energy Society General Meeting, Minneapolis, MN, July 25-29, 2010.

Huan Zhao (presenter) and Leigh Tesfatsion, "Integrated Retail and Wholesale Power System Operation with Smart-Grid Functionality," IEEE Power and Energy Society General Meeting, Minneapolis, MN, July 25-29, 2010.

Junjie Sun (presenter) and Leigh Tesfatsion, "Testing Institutional Arrangements via Agent-Based Modeling: A U.S. Electricity Market Application," 16th International Conference on Computing in Economics and Finance, sponsored by the Society for Computational Economics, hosted by City University London, July 15-17, 2010.

Leigh Tesfatsion, "Agent-Based Modeling of Electric Power Markets," DARPA ISAT Workshop on Modeling and Measuring of Societal Resilience, MIT RLE Conference Center, Cambridge, MA, July 12-13, 2010.

Leigh Tesfatsion, "Overview of Agent-Based Macroeconomics," NSF Workshop on Agent-Based Modeling of the Economy and the Financial Crisis," Airlie Center, Warrenton, VA, June 28-30, 2010.

Leigh Tesfatsion, "An Agent-Based Test Bed for the Integrated Study of Retail and Wholesale Power System Operations," Agent Technologies for Energy Systems (ATES 2010) Workshop, Toronto, Canada, May 11, 2010.

Leigh Tesfatsion, "Testing Institutional Arrangements via Agent-Based Modeling: A U.S. Electricity Market Example," Waterloo Institute of Complexity and Innovation (WICI) Colloquium, University of Waterloo, Ontario, Canada, March 22, 2010.

Paul Borrill and Leigh Tesfatsion (presenter), "Agent-Based Modeling: The Right Mathematics for the Social Sciences?", Colloquium, Mathematics and Statistics Department, McMaster University, Hamilton, Ontario, Canada, March 19, 2010.

Leigh Tesfatsion, "Stress Testing Institutional Arrangements via Agent-Based Modeling: Illustrative Results for U.S. Restructured Electric Power Markets," Sloan Foundation, New York City, October 2, 2009.

Leigh Tesfatsion, "Auction Basics for Wholesale Power Markets: Objectives and Pricing Rules," Invited Paper, IEEE Power and Energy Society General Meeting, Calgary, CA, July 26-30, 2009.

Hongyan Li (presenter) and Leigh Tesfatsion, "The AMES Wholesale Power Market Test Bed: A Computational Laboratory for Research, Teaching, and Training," IEEE Power and Energy Society General Meeting, Calgary, CA, July 26-30, 2009.

Hongyan Li (presenter) and Leigh Tesfatsion, "Development of Open Source Software for Power Market Research: The AMES Test Bed," IEEE Power and Energy Society General Meeting, Calgary, CA, July 26-30, 2009.

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Leigh Tesfatsion, Plenary Address: "From Human-Subject to Computational-Agent Experiments (and Everything In Between)," presented at the Economic Science Association (ESA) Meeting, George Mason U., Fairfax, Virginia, June 25-28, 2009.

Leigh Tesfatsion, "Agent-Based Computational Modeling and Macroeconomics," Invited Paper, The Economic Crisis and its Implications for the Science of Economics, Perimeter Institute for Theoretical Physics, Waterloo, Ontario, CA, May 1-4, 2009.

Leigh Tesfatsion, "Stress-Testing Institutional Arrangements via Agent-Based Modeling: Illustrative Results for U.S. Restructured Electric Power Markets," Interdisciplinary Center for Economic Science (ICES), George Mason U., Fairfax, VA, April 3, 2009.

Qun Zhou (presenter) and Leigh Tesfatsion, "Scenario Generation for Price Forecasting in Restructured Wholesale Power Markets," IEEE Power Systems Conference and Exposition, Seattle, WA, March 15-18, 2009.

Hongyan Li (presenter) and Leigh Tesfatsion, "Capacity Withholding in Restructured Wholesale Power Markets: An Agent-Based Test Bed Study," IEEE Power Systems Conference and Exposition, Seattle, WA, March 15-18, 2009.

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Hongyan Li (presenter) and Leigh Tesfatsion, "Dynamic LMP Response Under Alternative Price-Cap and Price-Sensitive Demand Scenarios," IEEE Power and Energy Society General Meeting, David L. Lawrence Convention Center, Pittsburgh, PA, July 21-24, 2008.

Junjie Sun (presenter) and Leigh Tesfatsion, "Dynamic Price Response Under Alternative Price-Cap and Price-Sensitive Demand Scenarios: Experimental Evidence from a Simulated Wholesale Electric Power Market," North American Summer Meetings of the Econometric Society, Carnegie-Mellon University, June 19-22, 2008.

Junjie Sun (presenter) and Leigh Tesfatsion, "Dynamic LMP Response Under Alternative Price-Cap and Price-Sensitive Demand Scenarios," International Industrial Organization Conference (IIOC), Washington, D.C., May 16-18, 2008.

Leigh Tesfatsion, "Agent-Based Modeling: A Bridge Between Games and the Social Sciences," Workshop Sponsored by the Office of Precollegiate Programs for the Talented and Gifted (OPPTAG), Iowa State University, April 5, 2008.

Leigh Tesfatsion (co-presenter) and Bart Wilson (co-presenter), "Agent-Based Computational Economics and Behavioral Modeling: Potential Applications to Energy Science and Technologies," Symposium/Webcast, Department of Energy - National Renewable Energy Laboratory (DOE-NREL), Washington, D.C., February 22, 2008.

Lynne Kiesling (co-presenter) and Leigh Tesfatsion (co-presenter), "A Test Bed for the Integrated Experimental Study of Retail and Wholesale Power Market Designs: Seaming GridLab-D with AMES," Tele-Seminar and Webcast, sponsored by the Pacific Northwest National Laboratory (PNNL), February 15, 2008.

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Blake LeBaron (co-presenter) and Leigh Tesfatsion (co-presenter), "Modeling Macroeconomies as Open-Ended Dynamic Systems of Interacting Agents," American Economic Association (AEA) Meeting, New Orleans, January 6, 2008.

Leigh Tesfatsion, Plenary Address: "Agent-Based Test Beds for Critical Infrastructure Research, Teaching, and Training," AGENT 2007, Northwestern University, November 17, 2007.

Nanpeng Yu (presenter), Chen-Ching Liu, and Leigh Tesfatsion, "Modeling of Suppliers' Learning Behaviors in an Electricity Market Environment," 14th International Conference on Intelligent Systems Applications to Power Systems (ISAP 2007), Kaohsiung, Taiwan, November 5, 2007.

Junjie Sun (presenter) and Leigh Tesfatsion, "Dynamic Testing of Wholesale Power Market Designs: An Agent-Based Computational Approach," North American Summer Meetings of the Econometric Society, Duke University, Durham, NC, June 21-24, 2007.

Junjie Sun (presenter) and Leigh Tesfatsion, "Dynamic Testing of Wholesale Power Market Designs: An Agent-Based Computational Approach," 13th International Conference on Computing in Economics and Finance, Society for Computational Economics (SCE), Montreal, Canada, June 14-16, 2007.

Leigh Tesfatsion, "Open-Source Software for Power Industry Research, Teaching, and Training: A DC-OPF Illustration," IEEE Power and Energy Society General Meeting, Tampa, Florida, June 24-28, 2007.

Leigh Tesfatsion, "An Agent-Based Computational Laboratory for Wholesale Power Market Design," IEEE Power and Energy Society General Meeting, Tampa, Florida, June 24-28, 2007.

Leigh Tesfatsion, "Modeling Behavior, Learning, and Social Interactions in Dynamic Economic Contexts: An Agent-Based Computational Approach," Center for the Advancement of Computational Research (CACR) Invited Lecture in Business, Miami University, Oxford, Ohio, April 20, 2007.

Junjie Sun (presenter) and Leigh Tesfatsion, "Dynamic Testing of Wholesale Power Market Designs: An Agent-Based Computational Approach," 5th Annual International Industrial Organization Conference (IIOC), Savannah, Georgia, April 14-15, 2007.

Leigh Tesfatsion, "Agent-Based Computational Economics: A Constructive Approach to Economic Theory," Allied Social Science Associations (ASSA) Annual Meeting, Chicago, IL, January 5-7, 2007.

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Steve Widergren (co-presenter) and Leigh Tesfatsion (co-presenter), "Market Design Test Environments," IEEE Power and Energy Society General Meeting, Montreal, Canada, June 2006.

Leigh Tesfatsion, Plenary Address: "Agent-Based Computational Economics: A Constructive Approach to Economic Theory," Computing in Economics and Finance 2006 (CEF'2006), Limassol, Cyprus, June 23, 2006.

Leigh Tesfatsion, "Testing the Efficiency and Reliability Impacts of MISO's Midwest Market Initiative: An Agent-Based Computational Approach," presented at the Forty-Third Annual Meeting of the Electric Power Research Center (Power Affiliate Research Program), Scheman, Iowa State University, May 10, 2006.

Leigh Tesfatsion, "Testing the Efficiency and Reliability Impacts of MISO's Midwest Market Initiative: An Agent-Based Computational Approach," presented to a joint meeting of the Iowa Utilities Board and NSF/EPRC energy project groups, Iowa State University, April 21, 2006.

Leigh Tesfatsion, "Introduction to Agent-Based Computational Economics," Invited Lecture, CAS 503, Iowa State University, April 17, 2006.

Leigh Tesfatsion, "Dynamic Testing of Wholesale Power Market Designs: An Agent-Based Computational Approach," 2006 International Industrial Organization Conference, Boston, MA, April 7-9, 2006.

Leigh Tesfatsion, "Testing the Reliability of Wholesale Power Market Designs: An Iterative Participatory Modeling Approach," Plenary Panel Address, NSF-DDDAS Workshop, National Science Foundation, Washington D.C., January 19-20, 2006.

Leigh Tesfatsion, "Market Design as Social Policy: An Agent-Based Modeling Approach," Conference-Call Presentation, National Research Council Committee on Organizational Modeling from Individuals to Societies, National Academies of Science Keck Building, Washington D.C., July 6, 2005.

Leigh Tesfatsion, Plenary Address: "Market Design as Social Policy: An Agent-Based Modeling Approach," Workshop on Agent-Based Models for Economic Policy Design (ACEPOL05), Center for Interdisciplinary Research, Department of Economics, University of Bielefeld, Germany, July 1, 2005.

Leigh Tesfatsion, "Agent-Based Computational Laboratories for the Experimental Study of Complex Economic Systems," Invited Address, Special Session on Teaching Economics on a Computer, 11th International Conference on Computing in Economics and Finance (CEF2005), Society for Computational Economics, Washington, D.C., June 24, 2005.

Leigh Tesfatsion, "An Agent-Based Computational Laboratory for Testing the Economic Reliability of Wholesale Power Market Designs," Market Design Session, 11th International Conference on Computing in Economics and Finance (CEF2005), Society for Computational Economics, Washington, D.C., June 23, 2005.

Leigh Tesfatsion, "An Agent-Based Computational Laboratory for Testing the Economic Reliability of Wholesale Power Market Designs," Invited Address, Panel Session on Economic Agents for Power Market Simulation, IEEE Power and Energy Society General Meeting, San Francisco, California, June 14, 2005.

Leigh Tesfatsion, "Agent-Based Electricity Market Design: Operational Validation Issues," Workshop on Empirical Agent-Based Modeling, Indiana University, Bloomington, June 3, 2005.

Leigh Tesfatsion, "Testing the Economic Reliability of FERC's Wholesale Power Market Platform: An Agent-Based Computational Approach," Department of Electrical and Computer Engineering, Iowa State University, March 29, 2005.

Leigh Tesfatsion, "Multi-Agent Learning in Dynamic Exchange Contexts," Learning in Exchange Workshop, Department of Economics, George Mason University, Fairfax, Virginia, March 7, 2005.

Leigh Tesfatsion, "Modeling Decentralized Market Economies as Distributed Local-Interaction Systems: An Agent-Based Approach," No Free Lunch (NFL) Workshop, Depart. of Economics, Iowa State University, Ames, IA, Nov. 12, 2004.

Deddy Koesrindartoto (presenter) and Leigh Tesfatsion, "A Computational Laboratory for Pre-Testing the Reliability of Restructured Wholesale Power Markets," Institute for Operations Research and Management Science (INFORMS) Annual Meeting, Denver, CO, October 2004.

Deddy Koesrindartoto (presenter) and Leigh Tesfatsion, "Testing the Reliability of FERC's Wholesale Power Market Platform: An Agent-Based Computational Economics Approach," 24th USAEE/IAEE North American Conference, Washington, D.C., July 8-10, 2004.

Leigh Tesfatsion, "Agent-Based Computational Economics: A Constructive Approach to Economic Theory," ACE Handbook Workshop, University of Michigan, Ann Arbor, MI, May 21-23, 2004.

Leigh Tesfatsion, "Labor Institutions and Macroeconomic Performance: An Agent-Based Computational Economics Approach," Midwest Macroeconomics Association Meeting, Iowa State University, May 15-17, 2004.

Leigh Tesfatsion, "Using Agent-Based Computational Laboratories for the Experimental Study of Complex Economic Processes: Research and Pedagogy," Iowa Economists Meeting, Iowa State University, May 15, 2004.

Leigh Tesfatsion, "Agent-Based Computational Economics: A Constructive Approach to Economic Theory," Workshop on Post-Walrasian Economics, Middlebury College, Middlebury, Vermont, May 1-2, 2004.

Leigh Tesfatsion, "Electricity Market Design: An Agent-Based Computational Economics Approach," No Free Lunch (NFL) Workshop, Department of Economics, Iowa State University, April 9, 2004.

Chris Cook and Leigh Tesfatsion (presenter), "Computational Laboratories for the Experimental Exploration of Complex System Behaviors," Case Studies in Online Learning Colloquium, Iowa State University, April 5, 2004.

Leigh Tesfatsion, "CAS 503 Lecture Series on ACE," 10-11am, 1034 Black Engineering, Iowa State University, March 1, 3, and 5, 2004.

Deddy Koesrindartoto (presenter) and Leigh Tesfatsion, "Electricity Market Design: An Agent-Based Computational Economics Approach," Complex Adaptive Systems Seminar, Iowa State University, December 8, 2003.

Deddy Koesrindartoto and Leigh Tesfatsion (presenter), "Testing the Reliability of FERC's Wholesale Power Market Platform: An Agent-Based Computational Economics Approach," IMA Hot Topics Workshop on Agent-Based Modeling and Simulation, Institute for Mathematics and its Applications (IMA), University of Minnesota, November 3, 2003.

Leigh Tesfatsion, "Electricity Market Design: An Agent-Based Computational Economics Approach," sponsored by the James Franck Institute (Computations in Science Distinguished Lecture Series), University of Chicago, and the Argonne National Laboratory, Chicago, October 29, 2003.

Leigh Tesfatsion, "Agent-Based Computational Economics: Virtual Economic Reality," sponsored by the Computation Institute (CSPP Distinguished Lecture Series) and the James Franck Institute (Computations in Science Distinguished Lecture Series), University of Chicago, October 28, 2003.

Leigh Tesfatsion, "Agent-Based Computational Economics: A Constructive Approach to Economic Theory," sponsored by the Computation Institute (CSPP Distinguished Lecture Series) and the James Franck Institute (Computations in Science Distinguished Lecture Series), University of Chicago, October 27, 2003.

Leigh Tesfatsion, Plenary Address: "Labor Institutions and Market Performance," Workshop in Industry and Labor Dynamics: The Agent-Based Computational Economics Approach (WILDACE), Moncalieri, Italy, organized jointly by the LABORatorio Riccardo Revelli (Centre for Employment Studies, Real Collegio Carlo Alberto, Moncalieri), the Department of Economics of the University of Turin, and the Social Interaction and Computing Group (SIEC) of Ancona, October 4, 2003.

Mark Pingle (presenter) and Leigh Tesfatsion, "Evolution of Worker-Employer Networks and Behaviors Under Alternative Non-Employment Benefits: An Agent-Based Computational Study," Society of Computational Economics, Ninth International Conference on Computing in Economics and Finance, University of Washington, Seattle, July 12, 2003.

Mark Pingle (presenter) and Leigh Tesfatsion, "Evolution of Worker-Employer Networks and Behaviors Under Alternative Non-Employment Benefits: An Agent-Based Computational Study," Summer 2003 Econometric Society Meetings, Northwestern University, Evanston, IL, June 28, 2003.

Leigh Tesfatsion, "Agent-Based Computational Economics: Modeling Economies as Complex Adaptive Systems," Complex Adaptive Systems Seminar, Harvard University, Cambridge, MA, April 7, 2003.

Mark Pingle (presenter) Leigh Tesfatsion, "Evolution of Worker-Employer Networks and Behaviors Under Alternative Non-Employment Benefits: An Agent-Based Computational Study," Human Resources Workshop, Department of Economics, Iowa State University, December 5, 2002.

Leigh Tesfatsion, "Agent-Based Computational Economics: Growing Economies from the Bottom Up," Computations in Science Distinguished Lecture Series, James Franck Institute, University of Chicago, May 22, 2002.

Mark Pingle and Leigh Tesfatsion (presenter), "Non-employment Benefits and the Evolution of Worker-Employer Cooperation: Experiments with Real and Computational Agents," UCLA Computational Social Sciences Conference, Lake Arrowhead, California, May 10, 2002.

Leigh Tesfatsion, Plenary/Keynote Address: "Agent-Based Computational Economics: Modeling Economies as Complex Adaptive Systems," Plenary address, Sixth Joint Conference on Information Sciences (JCIS'2002), co-listed as the Keynote Address for the Second International Workshop on Computational Intelligence in Economics and Finance (CIEF'2002), Raleigh, North Carolina, March 10, 2002.

Leigh Tesfatsion, "Economic Markets and Agents as Emergent Phenomena: Discussion," National Academy of Sciences Sackler Colloquium on *Adaptive Agents, Intelligence, and Emergent Human Organization: Capturing Complexity Through Agent-Based Modeling*, The Beckman Center, Irvine, California, October 4-6, 2001.

Mark Pingle (presenter) and Leigh Tesfatsion, "Non-employment Benefits and the Evolution of Worker-Employer Cooperation: Experiments with Real and Computational Agents," 7th International Conference of the Society for Computational Economics (SCE), *Computing in Economics and Finance*, Yale University, June 28-29, 2001.

Mark Pingle (presenter) and Leigh Tesfatsion, "Non-employment Benefits and the Evolution of Worker-Employer Cooperation: Experiments with Real and Computational Agents," Biennial Conference: Society for Advancement of Behavioral Economics (SABE), *Applied Behavioral Economics: Can It Improve Decisions and Policies?*, Center for Economic Research, Department of Economics, George Washington University, Washington D. C., June 11-12, 2001.

Leigh Tesfatsion, "A Computational Laboratory for Evolutionary Trade Networks: Presentation and Demonstration," Colloquium, Computer Science Department, Iowa State University, November 9, 2000.

Leigh Tesfatsion, "A Computational Laboratory for Evolutionary Trade Networks," Complex Adaptive Systems Workshop, Iowa State University, September 15, 2000.

Valentin Petrov (presenter) and Leigh Tesfatsion, "Concentration and Capacity Effects on Electricity Market Power" Congress on Evolutionary Computation (CEC'2000), San Diego, CA, July 16-19, 2000.

Leigh Tesfatsion, "Structure, Behavior, and Market Power in an Evolutionary Labor Market with Adaptive Search," presented at the Congress on Evolutionary Computation (CEC'2000), San Diego, CA, July 16-19, 2000.

Leigh Tesfatsion, "Agent-Based Computational Economics: Growing Economies from the Bottom Up," UCLA Center for Computational Social Science, Los Angeles, California, May 4-6, 2000.

Leigh Tesfatsion, "Agent-Based Computational Economics: Growing Economies from the Bottom Up," Internet-based presentation to the NSF-sponsored Industry University Cooperative Research Center PSERC (Power Systems Energy Research Council) whose members include electric power research groups at ISU, Cornell University, University of Illinois, University of Wisconsin at Madison, Berkeley, and Washington State University, April 25, 2000.

Leigh Tesfatsion, "Structure, Behavior, and Market Power in an Evolutionary Labor Market with Adaptive Search," presented at the Midwest Macroeconomics Conference, University of Iowa, April 14, 2000.

Leigh Tesfatsion, Keynote Address: "Agent-Based Computational Economics: Growing Economies from the Bottom Up," First International Workshop on Computational Intelligence in Economics and Finance, Atlantic City, New Jersey, February 28, 2000.

Leigh Tesfatsion, "The Trade Network Game: A Computational Laboratory for the Study of Agent-Based Markets," Seminar Series on Complexity and its Business Applications, University of Iowa, November 5, 1999.

Leigh Tesfatsion, "Complex Adaptive Systems: A Test of the Hypothesis 'You Know One When You See One," CAS Workshop, ISU, October 27, 1999.

David McFadzean and Leigh Tesfatsion (presenter), "Agent-Based Computational Economics: A Tutorial," Genetic and Evolutionary Computation Conference (GECCO'99), Orlando, Florida, July 12-July 18, 1999.

Leigh Tesfatsion, "Market Power Effects on Worker-Employer Network Formation in Evolutionary Labor Markets with Adaptive Search," Society for Computational Economics, 5th Conference, Boston College, June 24-June 26, 1999.

Leigh Tesfatsion, "Market Power Effects in Evolutionary Labor Markets with Adaptive Search," Macro Workshop, Department of Economics, ISU, April 22, 1999.

Leigh Tesfatsion, "Further Results on Evolutionary Labor Markets with Adaptive Search," CAS Workshop, ISU, April 21, 1999.

Leigh Tesfatsion, "Agent-Based Computational Economics: Growing Economies from the Bottom Up," Invited Colloquium, Indiana University, sponsored by the Workshop in Political Theory and Policy Analysis, April 6, 1999.

Leigh Tesfatsion, "Agent-Based Computational Economics: Growing Economic Systems from the Bottom Up," presented at the 45th North American Meetings of the Regional Science Association International (RSAI), Santa Fe, NM, Nov. 13, 1998.

Leigh Tesfatsion, "Contractual Network Formation in Evolutionary Labor Markets with Adaptive Search," Complex Adaptive Systems Workshop, Iowa State University, Ames, Iowa, October 30, 1998.

Leigh Tesfatsion, "Testing for Structure, Behavior, and Performance Correlations in Evolutionary Labor Markets with Adaptive Search," presented at the Computation in Economics and Finance Conference (CEF'98), Cambridge University, Cambridge, England, July 1, 1998.

Leigh Tesfatsion, "Agent-Based Computational Economics: A Tutorial," presented at the Computation in Economics and Finance Conference (CEF'98), Cambridge University, England, June 29, 1998.

Leigh Tesfatsion, "Gale-Shapley Matching in an Evolutionary Trade Network Game," presented at the Agents, Alife, and Computational Economics Workshop, Hewlett-Packard Laboratories, Bristol, England, June 24, 1998.

Leigh Tesfatsion, "Gale-Shapley Matching in an Evolutionary Trade Network Game," presented at the Public Economic Conference, University of Alabama, May 26, 1998.

Leigh Tesfatsion, "Gale-Shapley Matching in an Evolutionary Trade Network Game," presented to the Department of Economics, University of Oregon, May 7, 1998.

Leigh Tesfatsion, "Agent-Based Computational Economics: Growing Economic Systems From the Bottom Up," presented to the Institute for Cognitive and Decision Sciences, University of Oregon, May 4, 1998.

Leigh Tesfatsion, "Preferential Partner Selection in Evolutionary Labor Markets: A Study in Agent-Based Computational Economics," presented at the Seventh Annual Conference on Evolutionary Programming, San Diego, California, March 24-27, 1998.

Leigh Tesfatsion, "An Agent-Based Computational Model for the Evolution of Trade Networks," Third International Conference on Computing in Economics and Finance, Hoover Institution, Stanford University, July 1, 1997.

David McFadzean and Leigh Tesfatsion (presenter), "An Agent-Based Computational Model for the Evolution of Trade Networks," Sixth International Conference on Evolutionary Programming, Indianapolis, April 14, 1997.

Leigh Tesfatsion, "A C++ Platform for the Evolution of Trade Networks," ISU Alife Workshop, February 11, 1997.

Leigh Tesfatsion, "A C++ Platform for the Evolution of Trade Networks," UCLA Conference on Computable Economics, Los Angeles, February 8, 1997.

Leigh Tesfatsion, "A C++ Platform for the Evolution of Trade Networks," American Economic Association Meetings, New Orleans, January 4, 1997.

Leigh Tesfatsion, "A C++ Platform for the Evolution of Trade Networks," Cooperative Game Seminar Series, Department of Economics, ISU, December 11, 1996.

Leigh Tesfatsion, "An Evolutionary Trade Network Game with Preferential Partner Selection," Second International Conference on Computational Economics, University of Geneva, Switzerland, June 25, 1996.

Leigh Tesfatsion, "A C++ Platform for the Evolution of Trade Networks," Second International Conference on Computational Economics, University of Geneva, Switzerland, June 25, 1996.

Leigh Tesfatsion, "A C++ Platform for the Evolution of Trade Networks," Department of Economics, University of Trento, Italy, June 20, 1996.

Leigh Tesfatsion, "An Evolutionary Trade Network Game with Preferential Partner Selection," Institute for Cognitive and Decision Sciences, University of Oregon, Eugene, OR, May 20, 1996.

Leigh Tesfatsion, "An Evolutionary Trade Network Game with Preferential Partner Selection," Fifth Annual Conference on Evolutionary Programming, San Diego, California, February 29, 1996.

Leigh Tesfatsion, "An Evolutionary Trade Network Game with Preferential Partner Selection," UCLA Economic Simulation Conference, Los Angeles, California, February 9, 1996.

Leigh Tesfatsion, "An Evolutionary Trade Network Game with Preferential Partner Selection," Annual Meetings of the Allied Social Science Associations, San Francisco, California, January 7, 1996.

Leigh Tesfatsion, "Tradebots and Trade Networks," ISU Alife Workshop, Oct. 27, 1995.

Leigh Tesfatsion, "How Economists Can Get Alife," Macroeconomics Seminar, ISU Department of Economics, October 26, 1995.

Leigh Tesfatsion, "A Trade Network Game with Endogenous Partner Selection," Economic Science Association Meeting, Tucson, Arizona, October 13-15, 1995.

Leigh Tesfatsion, "How Economists Can Get Alife," SFI Conference: The Economy as a Complex Evolving System II, Santa Fe, New Mexico, August 26-September 1, 1995.

Leigh Tesfatsion, "A Trade Network Game with Endogenous Partner Selection," First Economic Alife Conference, Santa Fe Institute, Santa Fe, NM, May 26-29, 1995.

Leigh Tesfatsion, "A Trade Network Game with Endogenous Partner Selection," First International Conference of the Society on Computational Economics, University of Texas, Austin, May 21-24, 1995.

Leigh Tesfatsion, "A Trade Coalition Game with Preferential Partner Selection," Department of Economics, U. of Oregon, Eugene, OR, April 7, 1995.

Leigh Tesfatsion, "A Trade Coalition Game with Preferential Partner Selection," Department of Economics, Simon Fraser University, April 5, 1995.

Leigh Tesfatsion, "A Trade Coalition Game with Preferential Partner Selection," ISU Alife Workshop, March 31, 1995.

Leigh Tesfatsion, "Building a C++ Platform for Alife Simulations," ISU Alife Workshop, February 10, 1995.

Leigh Tesfatsion, "The Meaning of Rationality in Evolutionary Game Contexts," ISU Alife Workshop, December 2, 1994.

Leigh Tesfatsion, "Dynamic Estimation as an Approximate Reasoning Problem," Mathematics Colloquium, Department of Mathematics, ISU, August 30, 1994.

Leigh Tesfatsion, "Evolutionary Iterated Prisoner's Dilemma with Choice and Refusal of Partners," ISU Alife Workshop, August 3, 1994.

Leigh Tesfatsion, "Evolutionary Iterated Prisoner's Dilemma with Preferential Partner Matching," 1994 Summer Econometric Society Meeting, Universite Laval, Quebec City, June 26, 1994.

Leigh Tesfatsion, "Active Intermediation in a Monetary Overlapping Generations Economy," 1994 Decentralization Conference, U. of Toronto, April 14-17, 1994.

Leigh Tesfatsion, "On Selten's 'Evolution, Learning, and Economic Behavior'," ISU Alife Workshop, Iowa State University, April 8, 1994.

Peter Orazem (co-presenter) and Leigh Tesfatsion (co-presenter), "Human Capital Investment and the Locally Rational Child," Winter 1994 Econometric Society Meeting, Boston, Massachusetts, January 3, 1994.

Leigh Tesfatsion, "Evolution of Strategies for Multiagent Environments," ISU Alife Workshop, November 12, 1993.

Leigh Tesfatsion, "A Multicriteria Approach to Model Specification and Estimation," Department of Statistics, Iowa State University, November 3, 1993.

Leigh Tesfatsion, "Evolutionary Iterated Prisoner's Dilemma with Choice and Refusal of Partners," Economic Science Association, Tucson, Arizona, October 23, 1993.

Leigh Tesfatsion, "What are Evolutionary Algorithms (and Why Should Social Scientists Care)?", ISU Alife Workshop, September 24, 1993.

Dan Ashlock (co-presenter), E. Anne Stanley (co-presenter), and Leigh Tesfatsion (co-presenter), "An Evolutionary Iterated Prisoner's Dilemma Game with Choice and Refusal of Partners," Santa Fe Institute, New Mexico, August 2, 1993.

Dan Ashlock (co-presenter), E. Anne Stanley (co-presenter), and Leigh Tesfatsion (co-presenter), "An Evolutionary Iterated Prisoner's Dilemma Game with Choice and Refusal of Partners," Los Alamos National Laboratory, Los Alamos, New Mexico, July 29, 1993.

Dan Ashlock (co-presenter), E. Anne Stanley (co-presenter), and Leigh Tesfatsion (co-presenter), "Iterated Prisoner's Dilemma with Choice and Refusal of Partners," ISU Alife Workshop, Feb. 5 & 11, 1993.

E. Anne Stanley (co-presenter) and Leigh Tesfatsion (co-presenter), "Iterated Prisoner's Dilemma with Choice and Refusal of Partners," Math Biology Workshop, Department of Mathematics, Iowa State University, September 30, 1992.

Leigh Tesfatsion, "Multicriteria Estimation," Midwest Econometrics Group, Federal Reserve Bank of Minneapolis, Minneapolis, MN, September 12, 1992.

Dan Ashlock (co-presenter) and Leigh Tesfatsion (co-presenter), "Iterated Prisoner's Dilemma with Choice and Refusal of Partners," presented (with D. Ashlock) at the Artificial Life III Conference, sponsored by the Santa Fe Institute, Sweeney Center, Santa Fe, NN, June 15, 1992.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Nonlinear Estimation by Linear Associative Memories," presented at the American Economic Association Meeting in New Orleans, January 7, 1992.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Obtaining Initial Parameter Estimates for Nonlinear Systems Using Multicriteria Associative Memories," Department of Statistics, Iowa State University, Ames, Iowa, October 16, 1991.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Obtaining Initial Parameter Estimates for Nonlinear Systems Using Multicriteria Associative Memories," Midwest Econometrics Group, University of Notre Dame, Southbend, Indiana, September 15, 1991.

Mark Pingle (presenter) and Leigh Tesfatsion, "Intermediation, Bubbles, and Pareto Efficiency in Economies With Production," Theory Seminar, Department of Economics, U. of Iowa, April 1, 1991.

Mark Pingle and Leigh Tesfatsion (presenter), "Intermediation, Bubbles, and Pareto Efficiency in Economies With Production," Mathematical Economics and Dynamical Systems Session, American Mathematical Society Meeting, South Bend, IN, March 15, 1991.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Automatic Evaluation of Higher-Order Partial Derivatives for Nonlocal Sensitivity Analysis," SIAM Workshop on Automatic Differentiation, Breckenridge, Colorado, January 7, 1991.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Obtaining Initial Parameter Estimates for Nonlinear Systems Using Multicriteria Associative Memories," Neural Network Seminar, Computer Science Department, Iowa State University, Ames, Iowa, December 5, 1990.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Linear and Nonlinear Associative Memories for Parameter Estimation," Eleventh Annual Conference of the Society for Economic Dynamics and Control, University of Minnesota, St. Paul Campus, June 28-30, 1990.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Solving Nonlinear Equations By Adaptive Homotopy Continuation," Midwest Mathematical Economics Conference, Indiana University, Indiana, May 12, 1990.

Leigh Tesfatsion and John Veitch (presenter), "Analysis of Experimental Data Using Flexible Least Squares," Fifth Annual Tax Research Symposium, Sponsored by the Center for Accounting Research, and Deloitte and Touche, Sheraton at Redondo Beach, California, Jan 19, 1990.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "A Multicriteria Approach to Dynamic Estimation, Econometric Society Meeting, Atlanta, Georgia, Dec 28, 1989.

Mark Pingle and Leigh Tesfatsion (presenter), "Restoring the First Welfare Theorem for Overlapping Generations Economies," Econometric Society Meeting, Atlanta, GA, Dec 30, 1989.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "A Multicriteria Approach to Dynamic Estimation," Econometrics Seminar, Olin School of Business, Washington University, St. Louis, Missouri, Nov 8, 1989.

Mark Pingle (presenter) and Leigh Tesfatsion, "Overlapping Generations and the First Welfare Theorem," Theory Seminar, Iowa State University, Nov 6, 1989.

Mark Pingle and Leigh Tesfatsion (presenter), "Overlapping Generations and the First Welfare Theorem," Theory Seminar, University of California at San Diego, Nov 1, 1989.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "A Multicriteria Approach to Dynamic Estimation," International Symposium on Evolutionary Dynamics and Nonlinear Economics, IC^2 Institute, Austin, Texas, April 16-19, 1989.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "An Organizing Principle for Dynamic Estimation," Workshop on Econometric Estimation and Inference for Nonlinear Dynamic Macroeconomic Models, University of Southern California, Los Angeles, California, April 7-9, 1989.

Leigh Tesfatsion (presenter) and John Veitch, "U.S. Money Demand Instability: A Flexible Least Squares Approach," Macroeconomics Seminar, Finance Department, University of Southern California, Los Angeles, California, Nov 17, 1988.

Mark Pingle and Leigh Tesfatsion (presenter), "Pareto-Efficiency of Competitive Equilibria in Overlapping Generations Models," Summer Workshop of the IMSSS, Stanford, CA, Aug 18, 1988.

Leigh Tesfatsion (presenter) and John Veitch, "Money Demand Instability: A Flexible Least Squares Approach," Tenth Annual Conference of the Society for Economic Dynamics and Control, Arizona State University, Tempe, Arizona, March 9-11, 1988.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Time-Varying Regression Via Flexible Least Squares," Department of Economics, University of Arizona, Tucson, Jan 22, 1988.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Time-Varying Regression Via Flexible Least Squares," Ninth Annual Conference of the Society for Economic Dynamics and Control, Boston College, Chestnut Hill, Massachusetts, June 25, 1987.

Mark Pingle and Leigh Tesfatsion (presenter), "Pareto-Efficiency of Stationary Competitive Equilibria in Overlapping Generation Economies," Theory Workshop, UCLA, Los Angeles, California, May 28, 1987.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Sequential Nonlinear Estimation With Nonaugmented Priors," Department of Agricultural Economics, University of California at Berkeley, Berkeley, California, April 24, 1987.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "Exact Sequential Filtering, Smoothing, and Prediction for Nonlinear Systems," Econometric Society Meeting, Duke University, Durham, North Carolina, June 25, 1986.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "New Computer Methods for Nonlocal Comparative Statics and Analytical Higher-Order Partial Differentiation," Fifth World Congress of the Econometric Society, Cambridge, MA, Aug 17-24, 1985.

Leigh Tesfatsion, "The Inconsistency of Benevolent Government Economies," Econometric Society Meeting, Stanford University, Stanford, California, June 29, 1984.

Leigh Tesfatsion, "The Inconsistency of Benevolent Government Economies," Society for Economic Dynamics and Control Conference, Nice, France, June 13, 1984.

Leigh Tesfatsion, "Fair Division With Uncertain Needs and Tastes," Public Economics Workshop, Department of Economics, U. of Wisconsin, Madison, March 26, 1984.

Leigh Tesfatsion, "The Inconsistency of Benevolent Government Economies," Economic Theory Seminar, University of Texas at Austin, Jan 27, 1984.

Leigh Tesfatsion, "The Inconsistency of Benevolent Government Economies," Economic Theory Workshop, University of Wisconsin, Madison, Dec 19, 1983.

Leigh Tesfatsion, "The Inconsistency of Benevolent Government Economies," Economic Theory Seminar, University of Toronto, Canada, Jan 4, 1983.

Leigh Tesfatsion, "The Inconsistency of Benevolent Government Economies," Monetary Economics Workshop, Department of Economics, UCLA, Los Angeles, Oct 4, 1982.

Leigh Tesfatsion, "Welfare Implications of Net Social Security Wealth," Econometric Society Meeting, Cornell University, Ithaca, New York, June 18, 1982.

Leigh Tesfatsion, "A Stability Theorem for Symmetrically Rational Counterplanning," Game Theory Seminar, Department of Economics, Harvard University, Cambridge, Massachusetts, March 10, 1982.

Leigh Tesfatsion, "Macro Implications of Government Redistributive Tax-Transfer Policies," Economic Theory Seminar, SUNY Stony Brook, New York, Nov 19, 1981.

Leigh Tesfatsion, "Distribution and Competitive Equilibria in a Heterogeneous Overlapping Generations Model," Econometric Society Meetings, UC San Diego, June 23-26, 1981.

Leigh Tesfatsion, "Macro Implications of Government Redistributive Tax-Transfer Policy in a Heterogeneous Overlapping Generations Model," Economic Theory Seminar, UC San Diego, April 15, 1981.

Leigh Tesfatsion, "Planning Horizon Specification for a Class of Dynamic Investment Problems," 19th IEEE Conference on Decision and Control, Albuquerque, New Mexico, Dec 10-12, 1980.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "An Exact Sequential Solution Procedure for a Class of Nonlinear Econometric Estimation Problems with Systematically Varying Parameters," Session on Advances in Estimating Econometric Relationships, Econometric Society Meeting, Denver, Colorado, Sept 5-7, 1980.

Robert E. Kalaba and Leigh Tesfatsion (presenter), "A Least-Squares Model Specification Test for a Class of Dynamic Nonlinear Economic Models with Systematically Varying Parameters," Research Seminar, Federal Reserve Bank of Minneapolis, Minnesota, May 14, 1980.

Leigh Tesfatsion, "Criterion Decomposition for the Myopic Sequential Control of Uncertain Systems," Systems Session, 13th Annual Asilomar Conference on Circuits, Systems, and Computers, Pacific Grove, California, Los Angeles, Nov 5-7, 1979.

Leigh Tesfatsion, "Macroeconomic Policy Modeling and Adaptive Control," AFOSR Workshop on Adaptive Control, Coordinated by J. B. Cruz, Jr., University Inn, Champaign, Illinois, May 8-10, 1979.

Leigh Tesfatsion, "Time-Horizon Sensitivity Study for a General Stochastic Resource Allocation Model," Workshop in Mathematical Economic Theory and Econometrics, UCLA, Los Angeles, California, Nov 30, 1978.

Leigh Tesfatsion, "Criterion Filtering Methods for Adaptive Control," Adaptive Control Session, 12th Annual Asilomar Conference on Circuits, Systems, and Computers, Pacific Grove, California, Nov 6-8, 1978.

Leigh Tesfatsion, "A Dual Approach to Bayesian Statistical Inference and Adaptive Control Theory," 17th NBER-NSF Seminar on Bayesian Inference in Econometrics, University of Michigan, Ann Arbor, Nov 3-4, 1978.

OTHER PROFESSIONAL PARTICIPATIONS:

NSF Joint US-European Workshop II (Hybrid), "Flexible Electric Grid Critical Infrastructure for a Resilient Society," Philadelphia, PA, 21-22 April 2023.

NSF Joint US-European Workshop I (Hybrid), "Grid at the Edge: Towards the Zero-Carbon Power Grid with Improved Visibility, Safety, and Reliability," Split, Croatia, 23-24 May 2022.

Transactive Energy Theory Workshop 2021 (Virtual), sponsored by the Pacific Northwest National Laboratory (PNNL), September 15-17, 2021.

Power Systems Engineering Research Center (PSERC) Summer Meeting (Virtual), sponsored by Cornell University, August 9-11, 2021.

Computing in Economics and Finance (CEF) International Conference (Virtual), sponsored by the Society for Computational Economics (SCE), June 16-18, 2021.

Transactive Energy Systems Conference (TESC), MIT, Cambridge, MA, June 12-14, 2018.

Leigh Tesfatsion, "Modeling Coupled Physical and Human Systems as Locally Constructive Sequential Games," Discussion Session Position Paper, Agent-Based Modeling Symposium (ABM 17), Sponsored by the National Science Foundation (NSF), San Diego Marriott Mission Valley, San Diego, CA, April 20-22, 2017.

Session Organizer and Chair, IEEE PES GM 2015, Denver, CO, July 2015

Participant, ARPA-E/DOE Grid of the Future Workshop, "Decentralization and Demand Management," Washington, D.C., July 31-Aug 1, 2014.

Session Organizer and Chair, IEEE PES GM 2013, Vancouver, Canada, July 2013

Session Organizer and Chair, IEEE PES GM 2012, San Diego, CA, July 2012

Session Organizer and Chair, IEEE PES GM 2011, Detroit, MI, July 2011

Session Organizer and Chair, IEEE PES GM 2010, Minneapolis, MN, July 2010

Session Organizer and Chair, IEEE PES GM 2009, Calgary, CA, July 2009.

Session Co-Organizer and Chair, IEEE PES GM 2008, Pittsburgh, PA, June 2008.

Participant, Power Systems Engineering Research Center (PSERC) Meeting, Iowa State University, May 14-16, 2008.

Program Coordinator, 13th International Conference on Computation in Economics and Finance (CEF'2007), Montreal, Canada, June 2007.

International Program Committee Member and Session Organizer, Second International Conference on Artificial Economics, Aalborg, Denmark, September 2006.

Co-Director, VII Trento Summer School, Intensive Course on Agent-Based Computational Economics, Sardagna-Trento, Italy, July 3-21, 2006.

International Program Committee Member and Session Organizer for the ACE Special Interest Group, Twelfth International Conference on Computation in Economics and Finance (CEF'2006), Amathus Beach Hotel, Limassol, Cyprus, June 22-25, 2006.

Participant, Sixth Task Force Meeting, National Research Council Committee on Organizational Modeling from Individual to Societies, National Academies of Science, Jonsson Center, Woods Hole, Massachusetts, May 31-June 2, 2006.

Participant, Fifth Task Force Meeting, National Research Council Committee on Organizational Modeling from Individual to Societies, National Academies of Science Keck Building, Washington, D.C., March 3-4, 2006.

Participant, Fourth Task Force Meeting, National Research Council Committee on Organizational Modeling from Individual to Societies, National Academies of Science Beckmann Center, Irvine, California, December 9-10, 2005.

Participant, Third Task Force Meeting, National Research Council Committee on Organizational Modeling from Individual to Societies, National Academies or Science Keck Building, Washington, D.C., September 8-10, 2005.

Participant, Second Task Force Meeting, National Research Council Committee on Organizational Modeling from Individual to Societies, National Academies of Science Keck Building, Washington, D.C., July 6-8, 2005.

Participant, First Task Force Meeting, National Research Council Committee on Organizational Modeling from Individual to Societies, National Academies of Science Keck Building, Washington, D.C., April 25-26, 2005.

Participant, Workshop on Power Systems and LMP Fundamentals, sponsored by the ISO-New England, Inc., Hyatt Regency, Boston, MA, November 15-16, 2004.

International Program Committee Member and Session Organizer for the ACE Special Interest Group, Tenth International Conference on Computation in Economics and Finance (CEF'2004), Amsterdam, the Netherlands, July 8-10, 2004.

International Program Committee Member and Session organizer for the ACE Special Interest Group, Ninth International Conference on Computation in Economics and Finance (CEF'2003), University of Washington, Seattle, July 11-13, 2003.

Eighth Annual Power Research Conference, Center for the Study of Energy Markets, University of California at Berkeley, March 14, 2003.

International Program Committee Member and Session Organizer for the ACE Special Interest Group, Eighth International Conference on Computation in Economics and Finance (CEF'2002), Aix-en-Provence, June 27-29, 2002.

International Program Committee Member, 2002 Congress on Evolutionary Computation (CEC'2002), Honolulu, Hawaii, May 12-17, 2002.

International Program Committee Member and Session Organizer for the ACE Special Interest Group, Seventh International Conference on Computation in Economics and Finance (CEF'2001), Yale University, June 24-28, 2001.

International Program Committee Member and Session Organizer, 2000 Congress on Evolutionary Computation (CEC'2000), La Jolla Marriott Hotel, La Jolla, CA, 16-19 July 2000.

International Program Committee Member and Session Organizer for the ACE Special Interest Group, Sixth International Conference on Computation in Economics and Finance (CEF'2000), Barcelona, Spain, July 6-8, 2000.

International Program Committee Member and Session Organizer for the ACE Special Interest Group, Fifth International Conference on Computation in Economics and Finance (CEF'99), Boston College, Boston, June 24-26, 1999.

International Program Committee Member, Congress on Evolutionary Computation (CEC'99), Washington D.C., July 6-9, 1999.

Participant, Panel on Evolutionary Economics, Seventh Annual Conference on Evolutionary Programming, San Diego, March 24-27, 1998.

International Program Committee Member and Session Organizer, Symposium on Computation in Economics, Finance, and Engineering: Economic Systems, Cambridge, UK, June 29-July 1, 1998. Organizer of a coordinated track of five workshop sessions on agent-based computational economics (ACE).

Program Committee Member, Seventh Annual Conference on Evolutionary Programming, San Diego, March 25-27, 1998.

Program Committee Member and Session Organizer, Third International Conference on Computation in Economics and Finance (CEF'97), Stanford University, June 30-July 2, 1997. Organizer of two contributed paper sessions on agent-based computational economics (ACE) plus a special post-conference ACE meeting.

Program Committee Member and Session Organizer, Sixth Annual Conference on Evolutionary Programming, Indianapolis, April 1997. Organizer of a special invited paper session on "The Evolution of Social Systems."

Session Organizer, Second International Conference on Computation in Economics and Finance (CEF'96), Geneva, Switzerland, June 26-28, 1996. Organizer of a contributed paper session on "The Evolution of Markets" and a special satellite session on agent-based computational economics.

Visiting Research Scholar, Computable Economics Group, Department of Economics, University of Trento, Italy, June 15-25, 1996.

Artificial Life IV Conference, MIT, July 5-8, 1994.

Program Committee Member and Session Organizer, 1994 Summer Econometric Society Meeting, Quebec, Canada, June 24-28. Organizer of three contributed paper sessions on "Self-Organization and Emergent Behavior."

Session Organizer (three sessions), American Economic Association Meetings, Annaheim, California, January 4-7, 1993.

Visitor, Complex Systems Group (T-13), Center for Nonlinear Studies (CNLS), Los Alamos National Laboratory (LANL), Los Alamos, New Mexico, July 1993.

Mid-West Mathematical Economics Meeting, University of Illinois, Champaign, Illinois, November 9-11, 1990.

Co-chair, Program Committee, Tenth Annual Conference of the Society for Economic Dynamics and Control, Arizona State University, Tempe, Arizona, March 9-11, 1988.

Applied General Equilibrium Workshop, National Bureau of Economic Research, Stanford, California, May 1-2, 1987.

Workshop on Cooperative Games and Distributive Justice, Virginia Polytechnic Institute, Blacksburg, Virginia, June 18-23, 1986.

Applied General Equilibrium Workshop, National Bureau of Economic Research, Stanford, California, April 18-19, 1986.

REVIEWER FOR:

Journal of Mathematical Economics, *Review of Economic Studies*, *International Economic Review*, *American Journal of Agricultural Economics*, *National Science Foundation (NSF)*, *Journal of the American Statistical Association*, *IEEE Transactions on Automatic Control*, *Economic Inquiry*, *Bell Journal of Economics*, *Applied Mathematics and Computation*, *Journal of Econometrics*, *Journal of Economic Behavior and Organization*, *Journal of Economic Dynamics and Control*, *Journal of Public Economics*, *Journal of Economic Theory*, *Automatica*, *Econometrica*, *Journal of Political Economy*, *SIAM Journal on Scientific and*

Statistical Computing, Optimal Control, Economic Theory, Southern Economic Journal, SIAM Proceedings, Neural Computation, American Economic Review, Scandinavian Journal of Economics, SIAM Journal of Optimization, Journal of Forecasting, Computational Economics, Games and Economic Behavior, Psychological Review, IEEE Transactions on Evolutionary Computation, Complexity, Journal of Economic Growth, Journal of Economic Literature, Journal of Public Economic Theory, Energy and Climate Change Environment and Planning, Journal of Applied Econometrics, Edward Elgar Publishing, Energy Journal, Economic Bulletin, Austrian Science Fund, Energy Economics, European Transactions on Electrical Power, IEEE Transactions on Power Systems, Journal of Energy Markets, J. of Economic Interaction and Coordination, Artificial Life, IEEE Transactions on Smart Grid, Routledge Publishing Co., Operations Research, Computational Statistics and Data Analysis, Department of Energy (DOE), Power Systems Engineering Research Center (PSERC), European J. of Operational Research, Advanced Research Project Agency-Energy (ARPA-E), Socio-Economic Planning Sciences, J. of Economic Methodology, Quantitative Finance, Applied Energy