

Yoshiyuki Igarashi

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Education

May 2013: M.S. in Economics, University of Wyoming, Laramie, Wyoming
Master's Thesis: Knowledge Maximization in a Research Network: With Application to the Agricultural Experiment Stations in the United States
Overall GPA: 3.65

July 2010: M.S. in Agricultural and Resource Economics, University of Wyoming, Laramie, Wyoming
Master's thesis: Optimal Bonding System for Land Reclamation in Oil and Gas Development
Overall GPA: 3.88

March 2008: B.S. in Computer Science and Engineering, University of Aizu, Aizuwakamatsu, Japan
Bachelor's thesis: Naïve Bays Spam E-mail Classifier with Bayesian Theorem
Overall GPA: 3.33

Working Paper

Y. Igarashi, R.H. Coupal, D.C. Finnoff and M.A. Andersen. "Economics of Oil and Gas Development with Reclamation and Environmental Bonding Requirements."

M.A. Andersen and **Y. Igarashi**. "Knowledge Maximization in a Research Network."

Presentations

Y. Igarashi, K. Hanse, R. Steinke, N. Frazier, F. Ogden, "Management Layer for the ADHydro Model in the CI-WATER Project," **Symposium for the Consortium of Universities for the Advancement of Hydrologic Science, Inc (CUAHSI) Conference on HydroInformatics**, Tuscaloosa, AL (July 2015).

R.H. Coupal, **Y. Igarashi**, D.C. Finnoff and M.A. Andersen, "Economics of Oil and Gas Development: Policy Designs for Orphaned Wells in Wyoming," **Symposium for the Western Regional Science Association (WRSA)**, Tucson, AZ (February 2015).

Y. Igarashi, R.H. Coupal, D.C. Finnoff and M.A. Andersen, "Economics of Land Reclamation and Environmental Bonding with Industry's Compliance Rates," **Symposium for the Petroleum Association of Wyoming (PAW)**, Casper, WY (December 2014).

Y. Igarashi, R.H. Coupal, D.C. Finnoff and M.A. Andersen, "Economics of Oil and Gas Development in the Presence of Reclamation and Bonding Requirements," **Symposium for the American Agricultural Economics Association (AAEA) Annual Meeting**, Minneapolis, MN (July 2014).

Y. Igarashi, M.A. Andersen, D.C. Finnoff, and R.H. Coupal, "Policies for Interim Reclamation: Fixed vs. Flexible Standards," **Symposium for the Pacific Northwest Regional Economic Conference (PNREC)**, Spokane, WA (May 2013).

Y. Igarashi, M.A. Andersen, and R.H. Coupal, "Optimal Bonding System for Land Reclamation in Oil and Gas Development," **Symposium for the American Agricultural Economics Association (AAEA) Annual Meeting**, Denver, CO (July 2010).

Research Skills

Natural Resource Economics, Environmental Economics, Dynamic Optimization, Econometrics (Statistics), Machine Learning, Numerical Analysis

Other Skills

Computer Languages

- High proficiency in Java, C, GAMS, Mathematica, R, MS Word, MS Excel
- Moderate proficiency in Python, MySQL, GNU Octave, VBA, Javascript, MS Project, SharePoint

Language Skills

- Native proficiency in written and spoken Japanese
- Professional working proficiency in written and spoken English

- Award** *March 2013: Best Master's Student Award*, University of Wyoming, awarded to the best master's student in the College of Business.
- Employment**
- June 2013 – Present: Assistant Research Scientist*
Department of Agricultural and Applied Economics, University of Wyoming, Laramie, Wyoming
- Creating economic models for industry and regulatory agency with and without the effects of roll-over requirements and disturbance caps with different compliance rates corresponding to Wyoming's economic conditions, such as economic boom and bust levels.
 - Demonstrating agency can enforce stricter reclamation policies to maximize its NPV when the industry's compliance rate of performing final reclamations in Wyoming drops below 95.7%, when the compliance rate during the boom was 99.1% in 2008 and during the bust was 83.1% in 2012.
 - Modeling stochastic dynamic models for the economy in the Upper Colorado River Basin and programming the reservoir management models to control the release patterns for reservoirs in the Upper Colorado River Basin.
- Research Topic/Method*
- Dynamic programming and econometric analysis
 - Water resource and reservoir management
 - Land reclamation in the gas and oil industry
- Sept 2012 – May 2013: Graduate Assistant*
Department of Agricultural and Applied Economics, University of Wyoming, Laramie, Wyoming
- Modeled the optimal investment allocation to maximize the agricultural productivity of public sectors in the United States by incorporating inter-temporal and special spillovers.
 - Estimated production, discovery, and reclamation costs with regression analysis and interpretation of the results, and demonstrated that land reclamation costs 26.7 thousand dollars per well, even though BLM collects only 5.9 thousand dollars per well as a reclamation bond.
- Research Topic/Method*
- Operations research
 - Statistical methods
- August 2011 – August 2012: Graduate Assistant*
Department of Economics, University of Wyoming, Laramie, Wyoming
- Modeled a dynamic optimization model with several extensions, such as the roll-over requirement, disturbance cap, and orphan well tax.
- Research Topic/Method*
- Dynamic optimization
 - Statistical methods
- January 2009 – July 2010: Graduate Assistant*
Department of Agricultural and Applied Economics, University of Wyoming, Laramie, Wyoming
- Modeled and solved, numerically, the profit maximization system for the oil and gas industry in Wyoming with dynamic optimization by GAMS.
- Research Topic/Method*
- Optimal bonding system for land reclamation in oil and gas development
 - Dynamic optimization
- Sept 2006 – July 2008: Part-time Programmer*
SYNC Inc., Aizuwakamatsu City, Japan
- Assisted in the development and maintenance of a web-based survey system for marketing research that is used by over two hundred thousand people, using Perl, Java and MySQL.
- July – August 2006: Intern*
Credit Suisse, Tokyo, Japan
- Assisted in the IT infrastructure and security department as a troubleshooter for the company's self-developed software, customized operation system, and networks.

Volunteer Work

March – July 2011: 2011 Tōhoku Earthquake and Tsunami, Aizuwakamatsu City, Fukushima, Japan

- Assisted in organizing charity festivals in Aizuwakamatsu City in Fukushima.
- Sorted and rationed government aid supplies.

References

Available upon request.

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