

JAMES ERIC BICKEL, PH.D.

Associate Professor and Director
Graduate Program in Operations Research & Industrial Engineering
Cockrell School of Engineering
The University of Texas at Austin

Birthplace: Albuquerque, New Mexico

Citizenship: USA

EDUCATION:

| | | | |
|---------------------|---|-----|------|
| Stanford University | Engineering-Economic Systems | PhD | 1999 |
| Stanford University | Engineering-Economic Systems | MS | 1994 |
| New Mexico State | Mechanical Engineering (Minor: Economics) | BS | 1993 |

PROFESSIONAL REGISTRATION: Engineering-in-Training, State of New Mexico.

CURRENT AND PREVIOUS ACADEMIC POSITIONS:

2008–Present The University of Texas at Austin, Austin, Texas.

Graduate Program in Operations Research & Industrial Engineering

Director (2014-Present)

Associate Professor with Tenure (2014-Present)

Assistant Professor (2008-2014)

Associate Professor (courtesy), Department of Petroleum & Geosystems Engineering.

Director, Center for Petroleum Asset Risk Management.

Member, Graduate Studies Committee, Energy and Earth Resources Graduate Program.

Member, Graduate Studies Committee, Division of Statistics and Scientific Computing.

2011–Present Stanford Center for Professional Development, Stanford, California.

Instructor, Strategic Decision and Risk Management Certificate Program.

2014–Present Strategic Decisions Group (SDG), Houston, Texas and Palo Alto, California.

Fellow and Member of the Board of Directors

2004–2008 Texas A&M University, College Station, Texas.

Assistant Professor, Department of Industrial and Systems Engineering.

OTHER PROFESSIONAL EXPERIENCE:

1995–Present Strategic Decisions Group, Houston/Austin, Texas and Palo Alto, California.

Senior Engagement Manager & Co-Leader, Executive Client Education (1995–2004).

Outside consultant (2004-2014).

Director and Fellow (2014-Present).

1995–2004 Competitive Edge Decision Systems, Austin, Texas

President and Founder.

1994–1999 Stanford University, Stanford, California.

Decision Analysis Program, Lead Teaching Assistant (1996-1998), TA (1999).

Energy Modeling Forum (EMF), Research Assistant, Climate Change (1994-1995).

1994 Pacific Northwest Laboratories, Richland, Washington (Summer).

Decision & Risk Analysis Group, Associated Western Universities Fellowship.

1991–1993 Sandia National Laboratories, Livermore, California (Summer and Co-op).

Internal Combustion Engines Department, Outstanding Student Summer Program and Associated Western Universities Fellowship.

1989–1990 Sandia National Laboratories, Albuquerque, New Mexico (Summers).
Intelligent Systems Department, Outstanding Student Summer Program.

HONORS AND AWARDS:

2012 Elected Vice-President/President-Elect of Decision Analysis Society (1200 members)
2011 SPE Outstanding Technical Editor
2011 Fellow, Society of Decision Professionals
2010 NSF CAREER Award
2006 Winner of the INFORMS Decision Analysis Society 2006 Practice Award
2006 INFORMS Student Chapter, Appreciation Award for Faculty
2005 INFORMS Young Researcher Roundtable

BOARD OF DIRECTORS

2014-Present Strategic Decisions Group

MEMBERSHIPS IN PROFESSIONAL AND HONORARY SOCIETIES:

American Society of Mechanical Engineers (ASME)
Decision Analysis Society (DAS)
Energy, Natural Resources, and the Environment (ENRE) INFORMS Section
Federalist Society for Law and Public Policy Studies
Institute of Industrial Engineers (IIE)
Institute for Operations Research and the Management Sciences (INFORMS)
INFORMS Sports Section (SpORts)
Mensa
Society for American Baseball Research (SABR)
Society of Decision Professionals (SDP)
Society of Petroleum Engineers (SPE)

UNIVERSITY COMMITTEE ASSIGNMENTS:

The University of Texas at Austin

2013 Member, Mechanical Engineering Undergraduate Scholarship Committee.
2012–Present Member, Mechanical Engineering Undergraduate Curriculum Advancement Committee.
2012–Present Graduate Recruiter, Grad. Program in Operations Research and Industrial Engineering.
2012–Present Member, Mechanical Engineering, Laptop Committee
2008–Present Member, Mechanical Engineering, Graduate Student Recruiting Committee (ORIE Rep).
2009 Member, CSE Space and Earth Engineering Strategic Thrust Committee.
2009 Member, CSE Sustainable Energy Thrust Committee.
2008–2009 Member, Mechanical Engineering Clean Energy Committee.

Texas A&M University

2006–2008 Member, Awards Committee, Industrial and Systems Engineering.
2005–2008 Chair, Systems Engineering Curriculum Committee, Industrial and Systems Engineering.
2004–2008 Member, Dean's Project Management Certificate Committee.
2004–2005 Industrial Engineering and Systems Engineering Graduate Committee.

PROFESSIONAL SOCIETY SERVICE:

Elected Positions

2012–2016 Vice President/President-Elect, Decision Analysis Society (1200 members).
2011–2012 Board of Directors, Society of Decision Professionals.

J. E. Bickel

2008–2010 Vice Chair for Programs, OR in Sports (SpORts).
2006–2008 Council Member, INFORMS' Decision Analysis Society.

Other Service

2012– Present Member, INFORMS Sections/Societies Committee.
2012–Present Member, INFORMS Subdivisions Council.
2012–Present Member, INFORMS PR Subcommittee.
2012– Present Chair, Decision Analysis Society Nominating Committee.
2011–2012 Member, Society of Decision Professionals Knowledge Sharing Committee.
2010– 2011 Chair, Decision Analysis Society Wikipedia Committee.
2010 Instructor, Decision Education Foundation.
2008–2010 Chair, Practice Award Committee, Decision Analysis Society.
2006–2008 Chair, Membership Committee, Decision Analysis, Society.
2005–2008 Member, Publications Award Committee, Decision Analysis Society.
2005–2008 Member, Nominating Committee, Decision Analysis Society.

Conference Organization

Steering and Program Committees

1. Leaf-Herman, William (chair), J. Eric Bickel, Jeff Keisler, Matt Kurtz, and Steve Letros. 2014. Decision Analysis Affinity Group Annual Conference, Boston, Massachusetts, 27-28 March.
2. Bickel, J. Eric (chair), Ellen Coopersmith, Jim Felli, Steve Letros, Henk Krijnen, Christian Bos. 2013. Decision Analysis Affinity Group Annual Conference, Austin, Texas, 11-12 April.

Cluster Chair

1. Bickel, J. Eric. 2010. SpORts Track, INFORMS 2010 Annual Conference, Austin, Texas, 7-10 November.
2. Bickel, J. Eric. 2009. SpORts Track, INFORMS 2009 Annual Conference, San Diego, California, 11-14 October.
3. Bickel, J. Eric. 2009. Management Track Selection Committee, SPE 2009 ATCE, New Orleans, Louisiana, 4-7 October.
4. Bickel, J. Eric. 2008. Decision Analysis Cluster Chair, INFORMS 2008 Regional Conference, College Station, Texas, 18-19 April.
5. Bickel, J. Eric. 2008. Management Track Selection Committee, SPE 2008 ATCE, Denver, Colorado, 21-24 September.
6. Bickel, J. Eric. 2007. Management Track Selection Committee, SPE 2007 ATCE, Anaheim, California, 11-14 November.
7. Bickel, J. Eric. 2005. Decision Analysis Cluster Co-Chair, INFORMS 2005 Annual Conference, San Francisco, California, 13-16 November.

Session Chair

1. Bickel, Eric and Don Richardson. 2013. "Environment & Safety Risks," RPSEA 2013 Ultra-Deepwater Technology Conference, The Woodlands, Texas, 29 October.
2. Bickel, J. Eric. 2012. "Aggregation of Probabilistic Judgments," INFORMS 2012 Annual Conference, Phoenix, Arizona, 15 October.
3. Bickel, J. Eric. 2012. "Scoring Rules and Probability Assessment," INFORMS 2012 Annual Conference, Phoenix, Arizona, 14 October.
4. Bickel, J. Eric. 2010. "DAS Practice Awards," INFORMS 2010 Annual Conference, Austin, Texas, 7-10 November.
5. Bickel, J. Eric. 2009. "DAS Practice Awards," INFORMS 2009 Annual Conference, San Diego, California, 11-14 October.
6. Bickel, J. Eric. 2009. "Value of Information," INFORMS 2009 Annual Conference, San Diego, California, 11-14 October.

7. Bickel, J. Eric. 2008. "Data and Integration Architectures," 2008 Digital Energy Conference, Houston, Texas, 20 November.
8. Bickel, J. Eric. 2005. "Decision Analysis Arcade II," 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.
9. Bickel, J. Eric. 2005. "Decision Analysis Arcade III," 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.
10. Bickel, J. Eric. 2005. "Decision Analysis Arcade IV," 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.
11. Bickel, J. Eric. 2005. "SpORts Arcade," 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.
12. Bickel, J. Eric. 2004. "Teaching Decision Analysis," 2004 INFORMS Annual Conference, Denver, Colorado, 24-27 October.
13. Bickel, J. Eric. 2004. "Using Decision Analysis to Manage Canadian Resources," CORS/INFORMS, Banff, Alberta, Canada, 16-19 May.

EDITORIAL SERVICE:

- 2012–Present Member Editorial Board, *EURO Journal on Decision Processes*.
2011–Present Topical Editor, *Wiley Encyclopedia of Operations Research and Management Science*.
2010–Present Associate Editor, *Decision Analysis*.
2009–Present Member of Editorial Board, *Decision Analysis*.
2009–Present Technical Editor, *SPE Economics & Management*.
2006–2009 Ad Hoc Associate Editor, *Decision Analysis*.

INTERNATIONAL AND NATIONAL COMMITTEES AND ADVISORY PANELS:

- 2012–2014 Co-Chair, *Ultra-Deepwater Environmental, Safety & Regulatory & Metocean Technical Advisory Committee*, Research Partnership to Secure Energy for America (RPSEA, DOE NETL).
2009–Present Advisory Board, Mizzou Advantage Sustainable Energy Initiative.
2006–2008 Advisory Council, Quantification and Management of Risk in Exploration and Production, International Research Institute of Stavanger (Norway).

PUBLICATIONS (* = STUDENT)

A1. Refereed Archival Journal Publications (37)

1. Montiel*, Luis V. and J. Eric Bickel. 2014. "Decision Making with Partial Probabilistic or Preference Information." To Appear *Wiley Encyclopedia of Operations Research and Management Science*.
2. Hirotsu, Nobu and J. Eric Bickel. 2014. "Optimal batting orders in run-limit-rule baseball: A Markov-chain approach." Forthcoming at *IMA Journal of Management Mathematics*.
3. Bickel, J. Eric and Seong Dae Kim*. 2014. "Reexamining the efficiency of Major League Baseball over-under betting market." *Applied Financial Economics* **24**(18) 1229-1234. doi: 10.1080/09603107.2014.925052.
4. Montiel*, Luis V. and J. Eric Bickel. 2014. "A Generalized Sampling Approach for Multi-linear Utility Functions given Partial Preference Information." *Decision Analysis* **11**(3) 147-170. doi: 10.1287/deca.2014.0296.
5. Kullawan*, K., R. Bratvold and J. E. Bickel. 2014. "A Decision Analytic Approach to Geosteering Operations." *SPE Drilling & Completion* **29**(1) 36-46. doi: 10.2118/167433-PA.
6. Kim*, Seong Dae, Robert K. Hammond*, and J. Eric Bickel. 2014. "Improved Mean and Variance Estimating Formulas for PERT Analyses." *IEEE Transactions on Engineering Management* **61**(2) 362-369. doi: 10.1109/TEM.2014.2304977.

7. Thomas*, Philip, Reidar Bratvold, and J. Eric Bickel. 2014. "The Risk of Using Risk Matrices." *SPE Economics & Management* **6**(2) 56-66. doi: 10.2118/166269-PA.
8. Montiel*, Luis V. and J. Eric Bickel. 2013. "Generating a Random Collection of Discrete Joint Probability Distributions Subject to Partial Information." *Methodology and Computing in Applied Probability* **15** 951-967. doi: 10.1007/s11009-012-9292-9.
9. Bickel, J. Eric and Shubham Agrawal*. 2013. "Reexamining the economics of aerosol geoengineering." *Climatic Change* **119**(3) 993-1006. doi: 10.1007/s10584-012-0619-x.
10. Puerta-Ortega*, Carlos, J. Eric Bickel, and Susan Hovorka. 2013. "Assessing the value of permeability data in a carbon capture and storage project." *International Journal of Greenhouse Gas Control* **17** 523-533. doi:10.1016/j.ijggc.2013.06.003.
11. Hammond*, Robert K. and J. Eric Bickel. 2013. "On the Decision Relevance of Stochastic Oil Price Models: A Case Study." *The Engineering Economist* **58**(3) 209-230. doi: 10.1080/0013791X.2013.806975.
12. Hammond*, Robert K. and J. Eric Bickel. 2013. "Approximating Continuous Probability Distributions Using the 10th, 50th, and 90th Percentiles." *The Engineering Economist* **58**(3) 189-208. doi: 10.1080/0013791X.2013.793761.
13. Bickel, J. Eric. 2013. "Climate engineering and climate tipping-point scenarios." *Environment, Systems & Decisions* **33**(1) 152-167. doi: 10.1007/s10669-013-9435-8.
14. Zan*, Kun and J. Eric Bickel. 2013. "Components of Portfolio Value of Information." *Decision Analysis* **10**(2) 171-185. doi: 10.1287/deca.2013.0267.
15. Montiel*, Luis V. and J. Eric Bickel. 2013. "Approximating Joint Probability Distributions Given Partial Information." *Decision Analysis* **10**(1) 26-41. doi:10.1287/deca.1120.0261.
16. Hammond*, Robert K. and J. Eric Bickel. 2013. "Reexamining Discrete Approximations to Continuous Distributions." *Decision Analysis* **10**(1) 6-25. doi: 10.1287/deca.1120.0260.
17. Keller, L. Robin, Ali Abbas, J. Eric Bickel, et al. 2012. "From the Editors-Brainstorming, Multiplicative Utilities, Partial Information on Probabilities or Outcomes, and Regulatory Focus." *Decision Analysis* **9**(4) 297-302. doi:10.1287/deca.1120.0255.
18. Montiel*, Luis V. and J. Eric Bickel. 2012. "A Simulation-Based Approach to Decision Making with Partial Information." *Decision Analysis* **9**(4) 329-347. doi: 10.1287/deca.1120.0252.
19. Bickel, J. Eric. 2012. "Discretization, Simulation, and the Value of Information." *SPE Economics & Management* **4**(4) 198-203. doi: 10.2118/145690-PA.
20. Keller, L. Robin, Ali Abbas, J. Eric Bickel, et al. 2011. "From the Editors-Probability Scoring Rules, Ambiguity, Multiattribute Terrorist Utility, and Sensitivity Analysis." *Decision Analysis* **8**(4) 251-255. doi: 10.1287/deca.1110.0222.
21. Bickel, J. Eric, Eric Floehr, and Seong Dae Kim*. 2011. "Comparing NWS PoP Forecasts to Third-Party Providers." *Monthly Weather Review* **139**(10) 3304-3321. doi: 10.1175/2011MWR3525.1.
22. Bickel, J. Eric, Larry W. Lake, and John Lehman. 2011. "Discretization, Simulation, and Swanson's (Inaccurate) Mean." *SPE Economics & Management* **3**(3) 128-140. doi: 10.2118/148542-PA.
23. Bickel, J. Eric. 2010. "Scoring Rules and Decision Analysis Education." *Decision Analysis* **7**(4) 346-357. doi: 10.1287/deca.1100.0184.
24. Kim*, Seong Dae and J. Eric Bickel. 2010. "Roads or Radar: The Tradeoff Between Investments in Infrastructure and Forecasting When Facing Hurricane Risk." *IEEE Systems Journal* **4**(3) 363-375. doi: 10.1109/JSYST.2010.2050372.
25. Bratvold, Reidar B., J. Eric Bickel, and Hans Petter Lohne. 2009. "Value of Information in the Oil and Gas Industry: Past, Present, and Future." *SPE Reservoir Evaluation & Engineering* **12**(4) 630-638. doi: 10.2118/110378-PA.

26. Bickel, J. Eric. 2009. "On the Decision to Take a Pitch." *Decision Analysis* **6**(3) 186-193. **doi:** 10.1287/deca.1090.0145.
27. Bickel, J. Eric and Reidar B. Bratvold. 2008. "From Uncertainty Quantification to Decision Making in the Oil and Gas Industry." *Energy Exploration & Exploitation* **26**(5) 311-325. **doi:** 10.1260/014459808787945344.
28. Bickel, J. Eric and Seong Dae Kim*. 2008. "Verification of The Weather Channel Probability of Precipitation Forecasts." *Monthly Weather Review* **136**(12) 4867-4881. **doi:** 10.1175/2008MWR2547.1.
29. Bickel, J. Eric, Richard L. Gibson, Duane A. McVay, Stephen Pickering, and John Waggoner. 2008. "Quantifying the Reliability and Value of 3D Land Seismic." *SPE Reservoir Evaluation & Engineering* **11**(5) 832-841. **doi:** 10.2118/102340-PA.
30. Bickel, J. Eric. 2008. "The Relationship Between Perfect and Imperfect Information in a Two-Action Risk-Sensitive Problem." *Decision Analysis* **5**(3) 116-128. **doi:** 10.1287/deca.1080.0118.
31. Bickel, J. Eric, James E. Smith, and Jennifer L. Meyer. 2008. "Modeling Dependence Among Geologic Risks in Sequential Exploration Decisions." *SPE Reservoir Evaluation & Engineering* **11**(2) 352-361. **doi:** 10.2118/102369-MS.
32. Bickel, J. Eric. 2007. "Some Comparisons among Quadratic, Spherical, and Logarithmic Scoring Rules." *Decision Analysis* **4**(2) 49-65. **doi:** 10.1287/deca.1070.0089.
33. Bickel, J. Eric. 2006. "Some Determinants of Corporate Risk Aversion." *Decision Analysis* **3**(4) 233-251. **doi:** 10.1287/deca.1060.0080.
34. Bickel, J. Eric and James E. Smith. 2006. "Optimal Sequential Exploration: A Binary Learning Model." *Decision Analysis* **3**(1) 16-32. **doi:** 10.1287/deca.1050.0052.
35. Bickel, J. Eric. 2004. "Teaching Decision Making with Baseball Examples." *INFORMS Transactions on Education* **5**(1) 2-9. **doi:** 10.1287/ited.5.1.2.
36. Bickel, J. Eric. 2003. "Why it is So Hard to Hit .400: New Insights into an Old Statistic." *The Baseball Research Journal* **32** 15-21.
37. Bickel, J. Eric and Dean A. Stotz. 2002. "Batting Average by Count and Pitch Type: Fact and Fallacy." *The Baseball Research Journal* **31** 29-34.

A2. Manuscripts under Review (4)

38. Kullawan*, K., R. B. Bratvold, J. E. Bickel. 2015. "Value Creation with Multi-Criteria Decision Making in Geosteering Operations." Under review at *SPE Drilling & Completions*.
39. Montiel*, Luis V. and J. Eric Bickel. 2015. "Exploring the Accuracy of Joint-Distribution Approximations given Partial Information." Under review at *Operations Research*.
40. Hirotsu, Nobu and J. Eric Bickel. 2014. "On the Benefit of the Sacrifice Bunt: The Importance of Differing Objectives." Under Review at the *IMA Journal of Management Mathematics*.
41. Hammond*, Robert K. and J. Eric Bickel. 2013. "Discretization Methods for Continuous Probability Distributions." Under Review at the *Wiley Encyclopedia of Operations Research and Management Science*. Revise and resubmit.

A3. Manuscripts in Preparation (3)

42. Huang*, Tao and J. Eric Bickel. 2015. "Efficient Sequential Probability Assessment in Decision Analysis." To be submitted to *Decision Analysis*.
43. Hammond*, Robert K. and J. Eric Bickel. 2015. "Discrete Approximations to Continuous Distributions with Probability Assessment Error." To be submitted to *Decision Analysis*.

44. Kullawan*, K., R. B. Bratvold, J. E. Bickel. 2015. "Dynamic Programming and Geosteering." To be submitted to *SPE Drilling & Completions*.

B1. Refereed Conference Proceedings (2)

1. Canion*, B., E. Bickel, C. Hadlock*, D. Morton, and E. Schneider. 2013. "Game Theoretic Analysis of Physical Protection System Design." *Proceedings of GLOBAL 2013*, September 29 – October 3.
2. Bickel, J. Eric. 2009. "EXPERIENTIAL LEARNING AND STRICTLY-PROPER SCORING RULES." ASEE Annual Conference, Paper AC 2009-2249, Austin, TX, 17 June.

B2. Non-Refereed Conference Proceedings (21)

1. Bickel, J. Eric. 2014. "Decision Analytics, Value of Information, and Piloting in Unconventional Reservoirs." Paper SPE-169841-MS presented at the Hydrocarbon Economics Evaluation Symposium, Houston, Texas, 19-20 May.
2. Kullawan*, K., R. Bratvold and J. E. Bickel. 2014. "Value Creation with Multi-Criteria Decision Making in Geosteering Operations." Paper SPE-169849-MS presented at the Hydrocarbon Economics Evaluation Symposium, Houston, Texas, 19-20 May.
3. Zan*, Kun and J. Eric. Bickel. 2014. "Managed Pressure Drilling Probabilistic Risk Analysis: An Illustration." Paper OTC-25290-MS presented at the Offshore Technology Conference, Houston, Texas, 5-8 May.
4. Kullawan*, K., R. Bratvold and J. E. Bickel. 2013. "A Decision Analytic Approach to Geosteering Operations." Paper SPE 167433-MS presented at the SPE Middle East Intelligent Energy Conference and Exhibition, Dubai, UAE, 28-30 October.
5. Kullawan*, K., R. Bratvold and J. E. Bickel. 2013. "Integration of Bayesian Decision-Making Into Geosteering Practices." Paper SPE 167433-MS presented at the SPE Middle East Intelligent Energy Conference and Exhibition, Dubai, UAE, 28-30 October.
6. Thomas*, Philip, Reidar B. Bratvold, and J. Eric Bickel. 2013. "The Risk of Using Risk Matrices." Paper SPE 166269-MS presented at the SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, 30 September – 02 October.
7. Gong*, Xinglai, Duane McVay, Eric Bickel, and Luis Montiel*. 2011. "Integrated Reservoir and Decision Modeling To Optimize Northern Barnett Shale Development Strategies." Paper CSUG/SPE 149459 presented at the Canadian Unconventional Resources & International Petroleum Conference, Calgary, Alberta, Canada, 15-17 November.
8. Bickel, J. Eric. 2011. "Discretization, Simulation, and the Value of Information." Paper SPE 145690 presented at the SPE Annual Technical Conference and Exhibition, Denver, Colorado, 30 October – 02 November.
9. Turkarslan*, G., D. A. McVay, J. E. Bickel, L. V. Montiel*, and R. R. Ortiz*. 2010. "Integrated Reservoir and Decision Modeling to Optimize Spacing in Unconventional Gas Reservoirs." Paper CSUG/SPE 137816 presented at the Canadian Unconventional Resources & International Petroleum Conference, Calgary, Alberta, Canada, 19-21 October.
10. Bickel, J. Eric, Eric Floehr, and Seong Dae Kim*. 2010. "COMPARING NWS POP FORECASTS TO THIRD-PARTY PROVIDERS." Paper AMS 161669, presented at the 20th Conference on Probability and Statistics, 90th American Meteorological Society Annual Meeting, Atlanta, Georgia, 18 January.
11. Yu*, O.-Y, S. D. Guikema, J. E. Bickel, J.-L. Briaud, and D. B. Burnett. 2009. "Systems Approach and Quantitative Decision Tools for Technology Selection in Environmentally Friendly Drilling." paper SPE 120848 presented at the SPE Environmental & Safety Conference, San Antonio, Texas, 23-25 March.

12. Arcos*, D., D. Zhu, and E. Bickel. 2008. "Technical, Economic and Risk Analysis for a Multilateral Well." Paper SPE 115099 presented at the SPE Russian Oil and Gas Technical Conference and Exhibition, Moscow, Russia, 28-30 October.
13. Kim*, Seong Dae and J. Eric Bickel. 2008. "ROADS OR RADAR: INVESTING IN INFRASTRUCTURE OR IMPROVED FORECASTING IN THE FACE OF TROPICAL CYCLONE RISK." 28th Conference on Hurricanes and Tropical Meteorology, Orlando, Florida, 28 April – 02 May.
14. Bickel, J. Eric and Seong Dae Kim*. 2008. "VERIFICATION OF THE WEATHER CHANNEL PROBABILITY OF PRECIPITATION FORECASTS." Presented at the 19th Conference on Probability and Statistics, 88th American Meteorological Society Annual Meeting, New Orleans, Louisiana, 23 January.
15. Bickel, J. Eric and Reidar B. Bratvold. 2007. "Decision Making in the Oil & Gas Industry: From Blissful Ignorance to Uncertainty-Induced Confusion." Paper SPE 109610 presented at the SPE Annual Technical Conference and Exhibition, Anaheim, California, 11-14 November.
16. Bratvold, Reidar B., J. Eric Bickel, and Hans Petter Lohne. 2007. "Value of Information in the Oil and Gas Industry: Past, Present, and Future." Paper SPE 110378 presented at the SPE Annual Technical Conference and Exhibition, Anaheim, California, 11-14 November.
17. Kim*, Seong Dae and J. Eric Bickel. 2007. "Roads or Radar: Investing in Infrastructure or Improved Forecasting in the Face of Hurricane Risk." *Proceedings of the 44th Annual Meeting of the Society of Engineering Science*, Texas A&M University, College Station, Texas, 21-24 October.
18. Gibson, Richard, J. Eric Bickel, Duane McVay, and Steve Pickering. 2007. "Model-Based Uncertainty Quantification and Seismic Information Value." *SEG Technical Program Expanded Abstracts* 26(1) 71-75.
19. Bickel, J. Eric, James E. Smith, and Jennifer L. Meyer. 2006. "Modeling Dependence Among Geologic Risks in Sequential Exploration Decisions." Paper SPE 102369-Revised presented at the SPE Annual Technical Conference and Exhibition, San Antonio, Texas, 24-27 September.
20. Bickel, J. Eric, Richard L. Gibson, Duane A. McVay, Stephen Pickering, and John Waggoner. 2006. "Quantifying the Reliability and Value of 3D-Land Seismic." Paper SPE 102340-RMS2 presented at the SPE Annual Technical Conference and Exhibition, San Antonio, Texas, 24-27 September.
21. Bickel, J. E., R. L. Gibson, D. A. McVay, S. Pickering, and J. Waggoner. 2006. "Value of Seismic Information with Multiple Drilling Targets." *EAGE Expanded Abstracts* B012.

C. Other Publications (2)

1. Pickering, Steve and J. Eric Bickel. 2006. "The value of seismic information." *Oil and Gas Financial Journal* 3(5) 26-33.
2. Bickel, J. Eric and Dean Stotz. 2003. "To 'Take' or 'Not to Take': What's on Your Plate." *Coach and Athletic Director*, November, 21-24.

D. Book Chapters (7)

1. Bickel, J. Eric. Forthcoming. "QUANTIFYING THE BENEFIT OF CCS MONITORING AND VERIFICATION TECHNOLOGIES." In: *Carbon Dioxide Capture for Storage in Deep Geological Formations*, Volume 4, Kevin Dodds (ed.). CPL Press and BP, Cambridge, UK.
2. Bickel, J. Eric and Lee Lane. 2013. "Climate Engineering R&D." In: *Global Problems, Smart Solutions*, Bjørn Lomborg (ed.). Cambridge University Press: Cambridge, UK. 752 pages.
 - a. This work was part of the Copenhagen Consensus 2012 led by Bjørn Lomborg. Expert panel: Finn Kydland (Nobel Laureate), Robert Mundell (Nobel Laureate), Thomas Schelling (Nobel Laureate), Vernon Smith (Nobel Laureate), and Nancy Stokey.

3. Bickel, J. Eric and Lee Lane. 2013. "CLIMATE ENGINEERING AND R&D." In: *How to Spend \$75 Billion to Make the World a Better Place*, pp. 135-136. Bjørn Lomborg. Copenhagen Consensus Center, Washington, DC.
4. Bickel, J. Eric, James E. Smith, and Jennifer L. Meyer. 2011. "Modeling Dependence Among Geologic Risks in Sequential Exploration Decisions." In: *Decision Analysis in E&P*, pp. 148-157. Frank Koch (ed.). Society of Petroleum Engineers, Richardson, Texas. 210 pages.
5. Bratvold, Reidar B., J. Eric Bickel, and Hans Petter Lohne. 2011. "Value of Information in the Oil and Gas Industry: Past, Present, and Future." In: *Decision Analysis in E&P*, pp. 158-166. Frank Koch (ed.). Society of Petroleum Engineers, Richardson, Texas. 210 pages.
6. Bickel, J. E., R. L. Gibson, D. A. McVay, S. Pickering, and J. Waggoner. 2011. "Quantifying 3D Land Seismic Reliability and Value." In: *Decision Analysis in E&P*, pp. 167-175. Frank Koch (ed.). Society of Petroleum Engineers, Richardson, Texas. 210 pages.
7. Bickel, J. Eric and Lee Lane. 2010. "Climate Engineering." In: *Smart Solutions for Climate Change: Comparing Costs and Benefits*, pp. 9-51. Bjørn Lomborg (ed.). Cambridge University Press: Cambridge, UK. 436 pages.
 - a. This work was part of the Copenhagen Consensus on Climate Project. The Copenhagen Consensus Center (CCC) has been named by the University of Pennsylvania as one of the top-10 think tanks in the world. <http://www.gotothinktank.com/>
 - b. The CCC is directed by Bjørn Lomborg, who has been named one of the 100 Top Global Thinkers by *Foreign Policy*, one of the world's 75 most influential people by *Esquire*, and one of 50 people who could save the planet by the *UK Guardian*.
 - c. Our research was ranked first by an expert panel comprised of Jagdish Bhagwati, Finn Kydland (Nobel Laureate), Thomas Schelling (Nobel Laureate), Vernon Smith (Nobel Laureate), and Nancy Stokey. <http://fixtheclimate.com/#/component-1/the-result-prioritization/>

E. Reviews (0)

F. Technical Reports (7)

1. Bickel, J. Eric. 2013. "QUANTIFYING THE BENEFIT OF CCS MONITORING AND VERIFICATION TECHNOLOGIES." CO2 Capture Project.
2. Lane, Lee and J. Eric Bickel. 2013. "SOLAR RADIATION MANAGEMENT: AN EVOLVING CLIMATE POLICY OPTION." American Enterprise Institute for Public Policy Research.
3. Cipiti, B. B., S. E. Jordan, G. D. Wyss, T. G. Lewis III, F. A. Duran, C. Hadlock*, B. Canion*, E. Schneider, E. Bickel, D. Morton. 2012. "Risk-Informed Analysis and Game Theory Applied to Small Modular Reactor Security." Sandia National Laboratories Technical Report SAND2012-10814, December 2012 (official use only).
4. Bickel, J. Eric and Lee Lane. 2012. "Climate Change: Climate Engineering Research." *Copenhagen Consensus 2012*. Copenhagen Consensus Center, Copenhagen, Denmark.
5. Bickel, J. Eric. 2010. "The Climate Engineering Option: Economics and Policy Implications." American Enterprise Institute for Public Policy Research.
6. Lane, Lee and J. Eric Bickel. 2009. "Solar Radiation Management and Rethinking the Goals of COP-15." In: Lane, Lee, J. Eric Bickel, I. Galiana, C. Green, and V. Bosetti, Introduction by Bjørn Lomborg, *Copenhagen Consensus on Climate: Advice for Policy Makers*. <http://fixtheclimate.com/>
7. Bickel, J. Eric and Lee Lane. 2009. "An Analysis of Climate Engineering as a Response to Climate Change." *Copenhagen Consensus on Climate*. Copenhagen Consensus Center, Copenhagen, Denmark. <http://fixtheclimate.com/>

DOCUMENTARY APPEARANCES / INTERVIEWS (5):

1. Kenny, Brian. February 19, 2014. Featured guest on “Clubhouse Confidential.” MLB Network.
2. List, Barry. June 21, 2013. “Analytics at the Plate” INFORMS Science of Better Podcast. <http://www.scienceofbetter.org/podcast/bickel2.html>
3. Allen, Max. March 19, 2012. “Demon Coal.” CBC Radio One. Canada.
4. List, Barry. January 14, 2011. “Will Geoengineering Rescue Us from Climate Change?” INFORMS Science of Better Podcast. <http://www.scienceofbetter.org/podcast/bickel.html>
5. *Cool It*. 2010. Directed by Ondi Timoner. Distributed by Roadside Attractions and 1019 Entertainment. Based on the book by Bjørn Lomborg. My research into geoengineering is prominently featured. I make an appearance in the film, as does my co-author, Lee Lane. <http://www.imdb.me/jericbickel>
6. Mantle, Larry. August 18, 2009. “Air conditioning for Earth.” Interviewed on *Air Talk*, *National Public Radio*. USA.

SAMPLING OF MEDIA MENTIONS & POPULAR PRESS:

1. Lemire, Joe. January 10, 2013. “Evan Gattis: The Coolest Story and Nickname in Baseball.” *Sports Illustrated*. In this story, rookie phenom, and Atlanta Braves starting catcher, Evan Gattis credits my research with shaping his approach to hitting.
2. Silver, Nate. 2012. *The Signal and the noise: Why so many predictions fail—but some don't*. The Penguin Press, New York, NY. Discusses my work on the calibration of weather forecasts.
3. Lomborg, Bjorn. May 9, 2011. “There’s No One Perfect Fix for Climate Change.” *Slate*. http://www.slate.com/articles/technology/copenhagen_consensus_2012/2012/05/copenhagen_consensus_technology_geoengineering_and_low_carbon_taxes_are_favored_solutions_for_tackling_global_warming_.html
4. Furchtgott-Roth, Diana. December 1, 2011. “There’s No Appetite for Kyoto II.” *Real Clear Markets*. http://www.realclearmarkets.com/articles/2011/12/01/theres_no_appetite_for_kyoto_ii_99397.html
5. Lomborg, Bjorn. August, 28, 2009. “Technology Can Fight Global Warming.” *Wall Street Journal*. USA.
6. Tierney, John. August 19, 2009. “The Horror of Climate Engineering?” *New York Times*. USA.
7. Walsh, Bryan. August 18, 2009. “Can Geoengineering Help Slow Global Warming?” *Time Magazine*. USA.
8. Tierney, John. August 10, 2009. “The Earth Is Warming? Adjust the Thermostat.” *New York Times*. USA.
9. Witze, Alexandra. August 7, 2009. “Geoengineering Schemes under Scrutiny.” *Nature News*. USA.
10. van Loon, Jeremy and Christian Wienberg. August 7, 2009. “Ships Spraying Sea Water May Offer Climate Quick Fix.” *Bloomberg*. USA.
11. Harvey, Fiona. August 7, 2009. “Study Calls for Cheaper Options to Cut Emissions.” *Financial Times*. United Kingdom.
12. Webster, Ben. August 7, 2009. “Cloud Ships on Course to Beat Climate Change, Says Copenhagen Study.” *The Times*. United Kingdom.
13. Staff. August 7, 2009. “Cloud Ship Scheme to Deflect the Sun’s Rays is a Favourite to Cut Global Warming.” *The Telegraph*. United Kingdom.
14. Robson, David. February 6, 2009. “How good are the Weather Channel’s predictions?” *Short Sharp Science*. <http://www.newscientist.com/blogs/shortsharpscience/2009/02/how-good-are-the-weather-chann.html>

ORAL PRESENTATIONS (* = STUDENT):

A. Invited Lectures (26)

1. Bickel, J. Eric. 2014. "Deciding to Geoengineer the Planet: A Decision Analysis Case Study." ExxonMobil Development Planning Technical Seminar, 21 October.
2. Bickel, J. Eric. 2014. "Optimal Sequential Exploration." Houston Decision Quality Group, 09 October.
3. Bickel, J. Eric. 2013. "Deciding to Geoengineer the Planet: A Decision Analysis Case Study." Society of Decision Professionals, Webinar, 25 June.
4. Lane, Lee and J. Eric Bickel. 2013. "Solar Radiation Management: An Evolving Climate-Policy Option." American Enterprise Institute for Public Policy Research, Washington, DC, 29 May. Prof. Thomas Schelling (Nobel Laureate in Economics) offered comments on our paper. <http://www.aei.org/events/2013/05/29/solar-radiation-management-an-evolving-climate-policy-option/>
5. Bickel, J. Eric. 2012. "Risk Management with Partial Information." Committee of Chief Risk Officers, Risk Networking Summit. 27 September.
6. Bickel, J. Eric. 2012. "Simulation, Decision Trees, and Discretization." Chevron Oil Corporation, Decision Analysis Day. 24 September.
7. Bickel, J. Eric. 2012. "Climate Change and Climate Engineering." Rice University, Jones Graduate School of Business, 28 March.
8. Bickel, J. Eric. 2011. "Discretization, Simulation, and Swanson's (Inaccurate) Mean." Society of Decision Professionals, Webinar, 14 September.
9. Bickel, J. Eric. 2011. "Modeling of Probabilistic Dependence." IBM Research, Watson Research Center, 04 February.
10. Bickel, J. Eric. 2010. "The Climate Engineering Option." IOE Department, University of Michigan, Ann Arbor, Michigan, 22 September.
11. Bickel, J. Eric. 2010. "Climate Engineering as a Response to Climate Change." The Future of the Electricity Industry, Austin, Texas, 10 June.
12. Bickel, J. Eric. 2010. "The Geoengineering Option: Economics and Policy Implications." The American Enterprise Institute for Public Policy Research, Washington, DC, 24 February. Representative Bart Gordon (D-Tennessee), Chairman of the House Committee on Science and Technology, provided introductory comments. <http://www.aei.org/event/100207>
13. Bickel, J. Eric. 2009. "Climate Change and Climate Engineering." Climate-Change Legislative Summit, Austin, TX, 22 September. Appeared at the request of Public Utility Commissioner Barry Smitherman.
14. Bickel, J. Eric and Lee Lane. 2009. "Climate Engineering as a Response to Climate Change." Copenhagen Consensus on Climate Change, Washington, DC, 02 September. Presentation to expert panel comprised of Jagdish Bhagwati, Finn Kydland (Nobel Laureate), Thomas Schelling (Nobel Laureate), Vernon Smith (Nobel Laureate), and Nancy Stokey. <http://fixtheclimate.com/copenhagen-consensus-on-climate/>
15. Bickel, J. Eric. 2008. "Value of Information Demonstration." SPE ATW – Probabilistic Subsurface Assessments, Houston, Texas, 10-11 November.
16. Bickel, J. Eric. 2008. "Uncertainty Quantification and Value of Information; Why we do what we do." Marathon Oil, Subsurface Forum, Houston, Texas, 23 October.
17. Bickel, J. Eric. 2008. "Unlocking the Value of Seismic Information." SPE 2008 Digital Energy Conference, Houston, Texas, 20 May.
18. Bickel, J. Eric. 2007. "Value of Information: Theory and Practice." Graziadio School of Business Management, Pepperdine University, Malibu, California, 13 November.

19. Bickel, J. Eric. 2007. "Some Comparisons among Quadratic, Spherical, and Logarithmic Scoring Rules." Operations Research / Industrial Engineering Group, University of Texas, 26 October.
20. Bickel, J. Eric. 2007. "Quantifying 3D Land Seismic Reliability and Value." Department of Petroleum and Geosystems Engineering, University of Texas at Austin, 17 September.
21. Bickel, J. Eric. 2007. "Value of Information." Eni Exploration and Production, Eni Corporate University, Milan, Italy, 25-27 June.
22. Bickel, J. Eric. 2007. "Decision-Focused Profit Predication." SPE Forum – The Future of Profit Prediction, Colorado Springs, Colorado, 4-8 June.
23. Bickel, J.E., R.L. Gibson, D.A. McVay, S. Pickering, and J. Waggoner. 2006. "Quantifying 3D Land Seismic Reliability and Value." Houston SPE Reservoir Study Group, Houston, Texas, 24 October.
24. Bickel, J. Eric. 2006. "Optimal Sequential Exploration." McCombs School of Business, University of Texas at Austin, 5 May.
25. Bickel, J. Eric. 2005. "Optimal Sequential Exploration." Optimization Technology Group, ExxonMobil Research, Houston, Texas, 19 August.
26. Bickel, J. Eric. 2005. "Optimal Sequential Exploration." National Infrastructure Simulation and Analysis Center (NISAC), Sandia National Laboratories, Albuquerque, New Mexico, 27 June.

B. Conference Presentations (50)

1. Hadlock, Christopher* and J. Eric Bickel. 2014. "Quantifying System Reliability for HIPPS and SCSSV Subsystems." Ocean Energy Safety Research Roadmap for the 21st Century, Ocean Energy Safety Institute, Texas A&M University, 07 October.
2. Bickel, J. Eric. 2014. "Decision Analytics, Value of Information, and Piloting in Unconventional Reservoirs." Paper SPE-169841-MS presented at the Hydrocarbon Economics Evaluation Symposium, Houston, Texas, 19-20 May.
3. Kullawan*, K., R. Bratvold and J. E. Bickel. 2014. "Value Creation with Multi-Criteria Decision Making in Geosteering Operations." Paper SPE-169849-MS presented at the Hydrocarbon Economics Evaluation Symposium, Houston, Texas, 19-20 May.
4. Kullawan, K., R. Bratvold and J. E. Bickel. 2013. "Integration of Bayesian Decision-Making Into Geosteering Practices." Paper SPE 167433-MS presented at the SPE Middle East Intelligent Energy Conference and Exhibition, Dubai, UAE, 28-30 October.
5. Thomas*, Philip, Reidar Bratvold, and J. Eric Bickel. 2013. "The Risk of Using Risk Matrices." Paper SPE 166269-MS presented at the SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, 30 September - 02 October.
6. Canion*, B., E. Bickel, C. Hadlock*, D. Morton, and E. Schneider. 2013. "Game Theoretic Analysis of Physical Protection System Design." Presented at *GLOBAL 2013: International Nuclear Fuel Cycle Conference*, Salt Lake City, Utah, 29 September – 03 October.
7. Duncan, I. J., H. Wang, and J. E. Bickel. 2012. "Pragmatic and Modeling Approaches to Understanding Risks of Leakage in Shale Gas Wells." Society for Risk Analysis, Annual Meeting, San Francisco, California, December 2012
8. Duncan, I. J., H. Wang, and J. E. Bickel. 2012. "Predicting CO2 Pipeline Risk from Natural Gas Accident Data." DOE National Energy Technology Laboratory CO2 Sequestration Review Meeting, Pittsburgh, Pennsylvania, September 2012.
9. Bickel, J. Eric. 2013. "Climate Change and Climate Engineering." DAAG Annual Conference, Austin, Texas, 11 April.
10. Bickel, J. Eric. 2013. "Academic Perspectives." DAAG Annual Conference, Austin, Texas, 11 April.

11. Bickel, J. Eric and Luis Montiel*. 2012. "Making Decisions with Partial Information: Eagle Airlines Example." INFORMS Annual Conference, Decision Analysis Track, Charlotte, North Carolina, 12 November.
12. Montiel*, Luis and J. Eric Bickel. 2012. "Simulating Discrete Joint Probability Distributions Subject to Partial Information." INFORMS Annual Conference, Decision Analysis Track, Charlotte, North Carolina, 12 November.
13. Zan*, Kun and J. Eric Bickel. 2012. "Ranking or Selection?" INFORMS Annual Conference, Decision Analysis Track, Charlotte, North Carolina, 11 November.
14. Bickel, J. Eric. 2011. "Discretization, Simulation, and Swanson's (Inaccurate) Mean." DAAG Annual Conference, Houston, Texas, 21-22 April.
15. Bickel, J. Eric. 2011. "Discretization, Simulation, and the Value of Information." SPE Annual Technical Conference and Exhibition, Denver, Colorado, 30 October – 02 November.
16. Bickel, J. Eric. 2010. "Normative Corporate Risk Aversion." INFORMS Annual Conference, Decision Analysis Track, Austin, Texas, 9 November.
17. Bickel, J. Eric and Arjun Ramakrishnan*. 2010. "Discretization and Value of Information." INFORMS Annual Conference, Decision Analysis Track, Austin, Texas, 6 November.
18. Bickel, J. Eric, Eric Floehr, and Seong Dae Kim*. 2010. "Comparing NWS POP Forecasts to Third-Party Providers." 20th Conference on Probability and Statistics, 90th American Meteorological Society Annual Meeting, Atlanta, Georgia, 18 January.
19. Bickel, J. Eric. 2009. "Geoengineering: Costs, Benefits and Risks." INFORMS Annual Conference, Decision Analysis Track, San Diego, California, 14 October.
20. Bickel, J. Eric. 2009. "The Relationship between Perfect and Imperfect Information in a Risk-Sensitive Two-Action Problem." INFORMS Annual Conference, Decision Analysis Track, San Diego, California, 13 October.
21. Kim*, Seong Dae and J. Eric Bickel. 2008. "Tradeoff between Investments in Infrastructure and Forecasting in the Face of Hurricane Risk." INFORMS Annual Conference, Decision Analysis Track, Washington, DC, 14 October.
22. Bickel, J. Eric. 2008. "Strictly Proper Scoring Rules Theory and Practice." INFORMS Annual Conference, Decision Analysis Track, Washington, DC, 14 October.
23. Bickel, J. Eric and Eric Floehr. 2008. "Calibration of Probability of Precipitation Forecasts." INFORMS Annual Conference, Decision Analysis Track, Washington, DC, 14 October.
24. Bickel, J. Eric and Seong Dae Kim*. 2008. "Verification of The Weather Channel Probability of Precipitation Forecasts." 19th Conference on Probability and Statistics, 88th American Meteorological Society Annual Meeting, New Orleans, Louisiana, 23 January.
25. Bickel, J. Eric and Reidar Bratvold. 2007. "Decision-Making in the Oil & Gas Industry – From Blissful Ignorance to Uncertainty Induced Confusion." SPE Annual Technical Conference and Exhibition, Anaheim, California, 11-14 November.
26. Bratvold, Reidar, J. Eric Bickel, and Hans Petter Lohne. 2007. "Value of Information in the Oil and Gas Industry: Past, Present, and Future." SPE Annual Technical Conference and Exhibition, Anaheim, California, 11-14 November.
27. Bickel, J. Eric. 2007. "Strictly Proper Scoring Rules and the Measurement of Uncertainty." INFORMS Annual Conference, Decision Analysis Track, Seattle, Washington, 6 November.
28. Bickel, J. Eric. 2007. "Decision Education for All." INFORMS Annual Conference, Decision Analysis Track, Seattle, Washington, 5 November.

29. Gibson, Rick, J. Eric Bickel, Duane McVay, and Steve Pickering. 2007. "Model-Based Uncertainty Quantification and Seismic Information Value." SEG Annual Meeting, San Antonio, Texas, 23-28 September.
30. Bickel, J. Eric. 2007. "Applying OR across the Baseball Decision Hierarchy." Symposium on Statistics and Operations Research in Baseball, Hayward, California, 11 July 2007.
31. Bickel, J. Eric. 2007. "Value of Information: From Theory to Practice." INFORMS 2007 Conference on OR Practice, Vancouver, British Columbia, Canada, 30 April – 01 May 2007.
32. Pickering, Stephen, J. Eric Bickel, Richard L. Gibson, and Duane A. McVay. 2007. "Measuring the Value of Seismic Information in E&P Workflows." Petrotech 2007. New Delhi, India, 15-19 January.
33. Pickering, Stephen, J. Eric Bickel, Richard L. Gibson, and Duane A. McVay. 2006. "The Value of Seismic Information." PETEX 2006. London, United Kingdom, 21-23 November.
34. Bickel, J. Eric. 2006. "ChartMine[®]: Using Decision Theory and Data Mining to Improve On-Field Baseball Decision Making." 2006 INFORMS Annual Conference, Pittsburgh, Pennsylvania, 5-8 November.
35. Bickel, J. Eric, Rick Gibson, Duane McVay, Steve Pickering, and John Waggoner. 2006. "WesternGeco Uses Decision Analysis to Communicate the Value of Seismic Surveys to Potential Clients." 2006 INFORMS Annual Conference, Pittsburgh, Pennsylvania, 5-8 November. Winner of the INFORMS Decision Analysis Society 2006 Practice Award.
36. Bickel, J. Eric, Rick Gibson, Duane McVay, Steve Pickering, and John Waggoner. 2006. "Value of Seismic with Multiple Drilling Targets." 2006 SEG Annual Meeting, New Orleans, Louisiana, 1-6 October. Appeared in a special session entitled "The Best of the SBGf Conference."
37. Bickel, J. Eric, James E. Smith, and Jennifer L. Meyer. 2006. "Modeling Dependence among Geologic Risks in Sequential Exploration Decisions." SPE Annual Technical Conference and Exhibition, San Antonio, Texas, 24-27 September.
38. Bickel, J. Eric, Richard L. Gibson, Duane A. McVay, Stephen Pickering, and John Waggoner. 2006. "Quantifying 3D Land Seismic Reliability and Value." SPE Annual Technical Conference and Exhibition, San Antonio, Texas, 24-27 September.
39. Bickel, J. Eric, Rick Gibson, Duane McVay, Steve Pickering, and John Waggoner. 2006. "Value of Seismic with Multiple Drilling Targets." SEG/SBGf/ULG, Development and Production Forum, Rio de Janeiro, Brazil, 7-11 August. **Selected to appear in a special session at the 2006 SEG Annual Meeting entitled "The Best of the SBGf Conference."**
40. Bickel, J. Eric, Rick Gibson, Duane McVay, Steve Pickering, and John Waggoner. 2006. "Value of Seismic with Multiple Drilling Targets." 2006 EAGE Annual Conference, Vienna, Austria, 13 June.
41. Bickel, J. Eric and Reidar Bratvold. 2006. "Decision Focused Uncertainty Quantification." SPE/EAGE Workshop "What Do Geoscientists and Engineers Need to Do to Better Manage Uncertainty?" Dubrovnik, Croatia, 13-16 March.
42. Bickel, J. Eric and James E. Smith. 2006. "Optimal Sequential Exploration: A Binary Learning Model." SPE/EAGE Workshop "What Do Geoscientists and Engineers Need to Do to Better Manage Uncertainty?" Dubrovnik, Croatia, 13-16 March.
43. Bickel, J. Eric and James E. Smith. 2006. "Optimal Sequential Exploration: A Binary Learning Model." 2006 DAAG, Baltimore, Maryland, 29-31 March.
44. Bickel, J. Eric and James E. Smith. 2005. "Optimal Sequential Exploration: A Binary Learning Model." 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.
45. Bickel, J. Eric. 2005. "Experiential Learning and Strictly Proper Scoring Rules." 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.
46. Bickel, J. Eric. 2005. "On the Value of Throwing Strikes." 2005 INFORMS Annual Conference, San Francisco, California, 13-16 November.

47. Bickel, J. Eric. 2004. "Teaching Decision Making with Baseball Examples." 2004 INFORMS Annual Conference, Denver, Colorado, 24-27 October.
48. Bickel, J. Eric. 2004. "To Take or Not to Take: Optimal Hitting Strategy in Baseball." 2004 INFORMS Annual Conference, Denver, Colorado, 24-27 October.
49. Bickel, J. Eric. 2003. "Using Maximum Entropy to Assess the Probability of Success in Oil and Gas Exploration." 2003 INFORMS Annual Conference, Atlanta, Georgia, 19-22 October.
50. Bickel, J. Eric. 1998. "The Corporate Contractual System and Normative Corporate Risk Attitude." 1998 INFORMS Annual Conference, Seattle, Washington, 25-28 October.

GRANTS AND CONTRACTS (TOTAL: \$4.00 MILLION, PI SHARE: \$1.35 MILLION):

| # | PI | Co-PI(s) | Title | Sponsor | Peer Review | Grant Period | Amount | J. E. Bickel Share | |
|----|--------------|--------------------------------|--|---|-------------|---------------------------|--------------------|--------------------|--------------------|
| | | | | | | | | % | \$ |
| 1 | J.E. Bickel | None | Project 20K: Quantifying System Reliability to Inform Concept Selection | BP America Production Company | No | 6/1/13-8/31/14 | \$186,917 | 100% | \$186,917 |
| 2 | V. Rai | J.E. Bickel (Sr. Person.) | Towards an Emergent Model of Tech. Adoption for Accel. the Diffusion of Residential Solar PV | Department of Energy Centre for Drilling and Wells for Improved Recovery (Norway) | Yes | 6/1/13-8/31/16 | \$492,096 | 6% | \$29,526 |
| 3 | J.E. Bickel | None | Real-time Steering Decision during Drilling. | Sandia National Labs | No | 10/15/12-7/1/12 | \$69,325 | 100% | \$69,325 |
| 4 | E. Schneider | J. E. Bickel & D. Morton | Support for Risk-Informed Security Analysis Meth. w/ App. to Small Modular Reactors | Sandia National Labs | No | 5/31/13 | \$110,000 | 40% | \$44,000 |
| 5 | J.E. Bickel | None | Quantifying the Benefit of CCS Monitoring and Verification Technologies | BP America Production Company | No | 7/18/12-8/31/13 | \$44,560 | 100% | \$44,560 |
| 6 | J.E. Bickel | None | CAREER: Accurate and Efficient Modeling of Probabilistic Dependence | National Science Foundation | Yes | 3/1/10-2/28/15 | \$400,000 | 100% | \$400,000 |
| 7 | I. Duncan | J. Nicot, C. Yang, J.E. Bickel | Developing Comprehensive Risk Assessment Frameworks for Geological Storage of CO2 | Department of Energy--NETL | Yes | 9/1/09-8/31/14 | \$1,996,132 | 7% | \$142,406 |
| 8 | D. McVay | J.E. Bickel | Optimizing Development Strategies to Increase Reserves in Unconventional Gas Reservoirs | Research Partnership to Secure Energy for America (DOE) | Yes | 9/1/08-12/31/11 | \$394,606 | 48% | \$188,602 |
| 9 | J.E. Bickel | None | SGER: Resource Allocation and the Value of Information | National Science Foundation | Yes | 9/1/08-12/31/10 | \$120,000 | 100% | \$120,000 |
| | | | | | | Sub-total | \$3,813,636 | 32% | \$1,225,336 |
| | | | | | | While at UT Austin | | | |
| 10 | J.E. Bickel | D. McVay, R. Gibson | Quantifying the Value of Seismic Information: Phase 2 Schlumberger | Schlumberger | No | 9/1/06-8/31/07 | \$125,000 | 60% | \$75,000 |
| 11 | J.E. Bickel | D. McVay, R. Gibson | Quantifying the Value of Seismic Information | Schlumberger | No | 9/1/05-8/31/06 | \$50,000 | 60% | \$30,000 |
| 12 | J.E. Bickel | None | Copulas and Energy Commodity Pricing | Suez Energy Marketing | No | 1/1/05-5/31/05 | \$15,000 | 100% | \$15,000 |
| | | | | | | Grand Total | \$4,003,636 | 34% | \$1,345,336 |

OTHER SUPPORT (TOTAL: \$254,000, PI SHARE: \$254,000):

| # | PI | Co-PI(s) | Title | Sponsor | Peer Review | Period | Amount | J. E. Bickel Share | |
|----|-------------|----------|--|--------------------------------|-------------|---------------------------|------------------|--------------------|------------------|
| | | | | | | | | % | \$ |
| 13 | J.E. Bickel | None | Applied Projects in OR Project Class | DrillingInfo | No | 1/1/13-5/31/13 | \$10,000 | 100% | \$10,000 |
| 14 | J.E. Bickel | None | Center for Petroleum Asset Risk Management (CPARM) Membership | Weatherford International | No | 9/1/12-8/31/13 | \$50,000 | 100% | \$50,000 |
| 15 | J.E. Bickel | None | Center for Petroleum Asset Risk Management (CPARM) Membership | Kuwait Oil Company | No | 9/1/12-8/31/14 | \$100,000 | 100% | \$100,000 |
| 16 | J.E. Bickel | None | Management Science and Engineering Undergraduate Certificate Program | UT Austin (ME PROCEED Program) | No | 4/1/10-8/31/15 | \$20,000 | 100% | \$20,000 |
| 17 | J.E. Bickel | None | Summer Research Assignment | UT Austin | Yes | 6/1/09-7/31/09 | \$25,000 | 100% | \$25,000 |
| 18 | J.E. Bickel | None | Graduate School Diversity Mentoring Fellowship | UT Austin | Yes | 9/1/09-8/31/10 | \$24,000 | 100% | \$24,000 |
| | | | | | | Sub-total | \$229,000 | 100% | \$229,000 |
| | | | | | | While at UT Austin | | | |
| 19 | J.E. Bickel | None | Pathways to Doctorate Program | Texas A&M | Yes | 9/1/06-8/31/07 | \$25,000 | 100% | \$25,000 |
| | | | | | | Grand Total | \$254,000 | 100% | \$254,000 |

PH.D. SUPERVISIONS COMPLETED (4):

The University of Texas (3)

1. Hammond, Robert. May 2014. ORIE. "The Accuracy of Discretizations in Decision Analysis." **Four publications. Finalist for George B. Dantzig Dissertation Award.** Currently Decision Analyst at Chevron.
2. Zan, Kun. August 2013. ORIE. "Value of Information and Portfolio Decision Analysis." **One publication.** Currently Statistical Analyst at HomeAway.

J. E. Bickel

3. Montiel, Luis V. May 2012. ORIE. “Approximations, Simulation, and Accuracy of Multivariate Discrete Probability Distributions in Decision Analysis.” **Three publications.** Currently Post-Doctoral Researcher and Lecturer, The University of Texas at Austin.

Texas A&M University (1)

4. Kim, Seong Dae. May 2009. ISEN. “Roads or Radar: The Tradeoff between Investments in Infrastructure and Forecasting in the Face of Hurricane Risk.” **Three publications.** Currently Assistant Professor, University of Alaska—Anchorage.

M.S. SUPERVISIONS COMPLETED (26):

The University of Texas (14)

1. Mendoza-Nativida, Luis. “Value of Information in Oil & Gas Plays.”
2. Jo, Dohyn. May 2012. EER. “A Decision Analysis of an Oil Company’s Retail Strategy in the Face of Electric Vehicle Penetration Uncertainty.”
3. Ortega, Carlos Puerta. May 2012. EER. “A Value of Information Analysis of Permeability Data for Storage Capacity in a Carbon, Capture and Storage Project.”
4. Agrawal, Shubham. May 2011. EER. “Decision Analysis and Risk Management: Application to Climate Change and Risk Detection.”
5. Wymond, David Tyler. EER. “The U.S. Small Hydropower Industry: Opportunities for Development and Barriers to Success.”
6. Schelee, Kyle. August 2011. ORIE. “Wind Forecast Verification: A Study in the Accuracy of Wind Forecasts Made by The Weather Channel and AccuWeather.”
7. Hammond, Robert. August 2011. ORIE. “Decision Impact of Stochastic Price Models in the Petroleum Industry.”
8. Hong Chul Ki. December 2010. EER. “Vertical Integration and Diversification Perspectives on Entry Decisions: Analysis of a Refiner’s Decision to Enter the Market.”
9. Arjun Ramakrishnan. May 2010. ORIE. “Value of Information and the Accuracy of Discrete Approximations.”
10. Mozano, Jennifer M. May 2010. ORIE. “Deciding among Models: A Decision-Theoretic View of Model Complexity.”
11. Agrawal, Shubham. December 2009. ORIE. “The Risk of Ending a Solar Radiation Management Program Abruptly.”
12. Baca, Angel. December 2009. EER. “Carbon Capture and Storage Potential Contribution to Mitigate Climate Change.”
13. Rebeiz, Paul R. May 2009. ORIE. “Capital Expansion Program under Price Capping Regulation.”
14. Theeyattuparampil, Vijo V. May 2009. ORIE. “Analysis of Geoengineering Strategies.”

Texas A&M University (12)

Industrial and Systems Engineering: 11

Ocean Engineering: 1

PH.D. SUPERVISIONS IN PROGRESS (3):

1. Huang, Tao, “Optimal Assessment Protocols in Decision Analysis.” Estimated graduation is May 2015 (candidate).
2. Hadlock, Chris, “System Reliability with Partial Information.” Estimated graduation is May 2016 (not yet a candidate).

M.S. SUPERVISIONS IN PROGRESS (1):

1. Zhang, Pu. “Value of Information and Near-Earth Asteroids.” Estimated graduation is May 2015.

DISSERTATION COMMITTEES (20):

J. E. Bickel

The University of Texas (12)

Operations Research and Industrial Engineering: 5

Information, Risk, and Operations Management: 2

Civil Engineering: 2

Mechanical Engineering: 2

LBJ School of Public Affairs: 1

Texas A&M University (6)

Industrial and Systems Engineering: 2

Civil Engineering: 1

Petroleum Engineering: 3

University of Stavanger (2)

Petroleum Engineering: 2

THESIS COMMITTEES (21):

The University of Texas (8)

Operations Research and Industrial Engineering: 4

Petroleum and Geosystems Engineering: 2

Mechanical Engineering: 1

Statistics and Scientific Computation: 1

Texas A&M University (10)

Industrial and Systems Engineering: 6

Petroleum Engineering: 4

University of Stavanger (3)

Petroleum Engineering: 3

SUPERVISION OF UNDERGRADUATE RESEARCH PROJECTS (4):

The University of Texas

Management Science & Engineering Certificate: 3

Economics: 1

COURSES TAUGHT:

The University of Texas

ORI 390R.17: Decision Analysis (new course)

ORI 390R.1: Applied Probability

ORI 397K: Graduate Seminar

ORI 397: Applied Projects in OR/IE

ME 353: Engineering Finance

ME 335: Engineering Statistics

Stanford/UT Strategic Decision and Risk Management

Decision Quality

Decision Leadership

Decision Education Foundation

Decision Quality for Educators

J. E. Bickel

Texas A&M University

INEN 627: Decision Analysis I (new course)

INEN 689: Engineering Analysis for Decision Making

INEN 459: Undergraduate Senior Design Course

INEN 303: Engineering Economics

VITA:

J. Eric Bickel is an associate professor in the Graduate Program in Operations Research & Industrial at The University of Texas at Austin. In addition, Professor Bickel directs the Center for Petroleum Asset Risk Management (CPARM). His research interests include the theory and practice of decision analysis and its application to energy exploration and development, climate change, and sports. His work has addressed the modeling of probabilistic dependence, value of information, scoring rules, calibration, risk preference, decision education, decision making in sports, and climate engineering as a response to climate change.

His research has been covered in *The Wall Street Journal*, *The New York Times*, *The Financial Times*, *Sports Illustrated* and the *MLB Network*, to name a few. In addition, Prof. Bickel and his research are featured in the documentary *Cool It*. His research into climate engineering was named as the top approach to address climate change by a panel of economists, including three Nobel Laureates.

Prior to returning to academia, Professor Bickel was a Senior Engagement Manager for Strategic Decisions Group, where he remains on the Board of Directors. He has consulted around the world in a range of industries, including oil and gas, electricity generation/transmission/delivery, energy trading and marketing, commodity and specialty chemicals, life sciences, financial services, and metals and mining.

Professor Bickel is the Vice President/President-Elect of the Decision Analysis Society. He holds an MS and PhD from the Department of Engineering-Economic Systems at Stanford University and a BS in Mechanical Engineering, with a minor in Economics, from New Mexico State University.

Address: Graduate Program in Operations Research, 1 University Station, C2200, The University of Texas at Austin, Austin, Texas, 78712-0292; email: ebickel@utexas.edu.