# CURRICULUM VITAE MICHAEL KUBY

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## **EDUCATION**

1988 PhD, Geography, Boston University

1980 B.A., Geography, University of Chicago

## **EMPLOYMENT**

May, 2024 – present	Emeritus Professor, School of Geographical Sciences and Urban Planning, Arizona State University
Fall, 2007 – 2024	Professor, School of Geographical Sciences and Urban Planning Arizona State University
Fall, 2019 – 2024	Affiliate Faculty, Institute for Social Science Research (ISSR) Arizona State University
Fall, 2010 – 2024	Senior Sustainability Scientist, Global Institute of Sustainability Arizona State University
Fall, 1994 – Spring, 2007	Associate Professor, Department of Geography Arizona State University
Fall, 1988 – Spring, 1994	Assistant Professor, Department of Geography Arizona State University
Fall, 1987 – Spring, 1988	Instructor, Department of Geography Boston University
January, 1985 – August, 1985	Transportation Geographer, Institute for Water Resources U.S. Army Corps of Engineers, Fort Belvoir, VA

## RESEARCH AND TEACHING INTERESTS

*Transportation:* alternative fuels/stations/driver behavior (hydrogen, electric vehicles, natural gas), light rail and streetcar, ports, air transport

Facility Location: refueling stations, dispersion, network design, energy transport

Energy and Environment: alternative fuels, carbon capture and storage, solid and toxic waste, dam removal

Quantitative Methods: operations research (optimization), statistics, GIS, network analysis

Regions: China, United States

Geographic Education: active learning

## **HONORS**

- Edward L. Ullman Award for Significant Contributions to Transportation Geography, Transportation Geography Specialty Group, American Association of Geographers, 2016. Clean Air Champion Award, Clean Cities Coalitions of Arizona, April 2016.
- Featured Faculty Nominee, Division of Student Affairs, Arizona State University, 2005–2006.
- Finalist (Hon. Mention), 23<sup>rd</sup> Annual Franz Edelman Award for Management Science Achievement, "China Coal Transport Study: Investment Strategies for China's Coal and Electricity Delivery System," College on the Practice of Management Science, The Institute for Management Science (TIMS), 1994 (lead author of 16).
- Citation Award (for best Applied Geography project), "China Coal Transport Study," Applied Geography Specialty Group, Association of American Geographers, 1993.
- Nystrom Award Finalist (for best paper based on recent PhD), Association of American Geographers, 1989.
- Presidential University Teaching Fellowship, Boston University, 1982-1986. Phi Beta Kappa, University of Chicago, 1980.

## RESEARCH

#### **PUBLICATIONS**

## **Textbooks**

- 2013 Kuby, Michael, John Harner, and Patricia Gober. 2013 Human Geography in Action, 6<sup>th</sup> edition. New York: John Wiley & Sons. (Includes online Student and Instructor Book Companion Sites at <a href="https://www.wiley.com/college/kuby">www.wiley.com/college/kuby</a> and WileyPlus version of book and activities at <a href="https://www.wileyplus.com">www.wileyplus.com</a>. First-third editions included CD-ROMs).
- 2010 Kuby, Michael, John Harner, and Patricia Gober. 2010 *Human Geography in Action*, 5<sup>th</sup> edition. New York: John Wiley & Sons.
- 2006 Kuby, Michael, John Harner, and Patricia Gober. 2006. *Human Geography in Action*, 4<sup>th</sup> edition. New York: John Wiley & Sons.
- Kuby, Michael, John Harner, and Patricia Gober. 2004. *Human Geography in Action*, 3<sup>rd</sup> edition. New York: John Wiley & Sons, 293 pp.
- 2002 Kuby, Michael, John Harner, and Patricia Gober. 2002. *Human Geography in Action*, 2<sup>nd</sup> edition. New York: John Wiley & Sons, 438 pp.
- 1998 Kuby, Michael, John Harner, and Patricia Gober. 1998. *Human Geography in Action*. New York: John Wiley & Sons, 468 pp.
- 1996 Kuby, Michael. 1996. *Population Growth, Energy Use, and Pollution: Understanding the Driving Forces of Global Change.* Commission on College Geography 2, Series on Developing Active Learning Modules on the Human Dimensions of Global Change. Washington: Association of American Geographers, 240 pages.

## **Edited Volumes**

- Kuby, Michael and Aaron Golub (editors). 2015. *Transportation & Arizona*. Background report from the 106<sup>th</sup> Arizona Town Hall, April 2015, Tucson, AZ, 10 chapters, 135 pages (http://www.aztownhall.org/page-1863425)
- 2009 Kuby, Michael and Aaron Golub (editors). 2009. From Here to There: Transportation Opportunities for Arizona. Background report from the 94th Arizona Town Hall, April 2009, Tucson, AZ, 18 chapters, 228 pages (http://www.aztownhall.org/94).

## **Refereed Journal Articles**

- 83. Liu, Hungchi, Daoqin Tong, and Michael Kuby. **2024**. A new spatial network optimization model for locating bike-sharing stations. *Annals of the American Association of Geographers*, accepted December 5, 2023.
- 82. Taplin, Drew, Michael Kuby, Deborah Salon, and David King. **2023**. Analysis of Ultra Low-Cost Carriers and Airport Choice. *Transportation Research Record* 2677(10): 808-823. (doi.org/10.1177/0361198123116408)
- 81. Kelley, Scott, Samir Gulati, Joseph Hiatt, and Michael Kuby. **2022**. Do Early Adopters Pass on Convenience? Access to and Intention to Use Geographically Convenient Hydrogen Stations in California. *International Journal of Hydrogen Energy* 47(4): 2708-2722. (doi.org/10.1016/j.ijhydene.2021.10.160)
- 80. Lopez Jaramillo, Oscar, Joel Rinebold, Michael Kuby, Scott Kelley, Darren Ruddell, Rhian Stotts, Aimee Krafft, and Elizabeth Wentz. **2021.** Hydrogen Station Location Planning via Geodesign in Connecticut: Comparing Optimization Models and Structured Stakeholder Collaboration. *Energies* 14(22): 7747. (doi.org/10.3390/en14227747)
- 79. Stotts, Rhian, Oscar G. Lopez Jaramillo, Scott Kelley, Aimee Krafft, and Michael Kuby. **2021**. How Drivers Decide Whether to Get a Fuel Cell Vehicle: An Ethnographic Decision Model. *International Journal of Hydrogen Energy* 46(12): 8736-8748. (doi.org/10.1016/j.ijhydene.2020.12.042)
- 78. Kelley, Scott, Aimee Krafft, Michael Kuby, Oscar Lopez, Rhian Stotts, and Jingteng Liu. **2020**. How Early Hydrogen Fuel Cell Vehicle Adopters Geographically Evaluate a Network of Refueling Stations in California. *Journal of Transport Geography* 89: 102897. (doi.org/10.1016/j.jtrangeo.2020.102897)
- 77. Krafft, Aimee, Scott Kelley, Oscar Lopez Jaramillo, Rhian Stotts, and Michael Kuby. **2020**. Hydrogen Refueling Station Consideration and Driver Experience in California. *Transportation Research Record* 2675(1): 280-293. (doi: 10.1177/0361198120956999)
- 76. Kelley, Scott, Michael Kuby, Oscar Lopez Jaramillo, Rhian Stotts, Aimee Krafft, and Darren Ruddell. Hydrogen Fuel Cell Vehicle Drivers and Future Station Planning: Lessons from a Mixed Methods Approach. **2020.** *Johnson Matthey Technology Review* 64: 279-286. (doi.org/10.1595/205651320X15826270318193)
- 75. Zhao, Qunshan, Michael Kuby, Scott Kelley, and Xiao Fan. A Multi-Scale Framework for Fuel Station Location: From Highways to Street Intersections. **2019.** *Transportation Research Part D Transport and Environment* 74: 48-64. (doi.org/10.1016/j.trd.2019.07.018)

- 74. Zhong, Qing, Daoqin Tong, Michael Kuby, Fangwu Wei, John Fowler, and Keiron Bailey. **2019.** Locating Alternative-Fuel Stations for Maximizing AADT Coverage and Ensuring Sufficient Spacing: A Case Study of CNG Truck Fueling. *Process Integration and Optimization for Sustainability* 3: 455-470. (doi.org/10.1007/s41660-019-00092-9)
- 73. Honma, Yudai and Michael Kuby. **2019.** Node-based vs. Path-based Location Models for Urban Alternative-Fuel Stations: Comparing Convenience and Coverage Abilities. *International Journal of Hydrogen Energy* 44: 15246-15261. (doi.org/10.1016/j.ijhydene.2019.03.262).
- 72. Lopez Jaramillo, Oscar G., Rhian Stotts, Scott Kelley, and Michael Kuby. **2019**. Content Analysis of Interviews with Hydrogen Fuel Cell Drivers in Los Angeles. *Transportation Research Record* 2673: 377-388. (doi.org/10.1177/0361198119845355).
- 71. Kuby, Michael. **2019.** The Opposite of Ubiquitous: How Early Adopters of Fast-Filling Alt-Fuel Vehicles Adapt to the Sparsity of Stations. *Journal of Transport Geography* 75: 46-57. (Transportation Geography Specialty Group Fleming Lecture) (doi.org/10.1016/j.jtrangeo.2019.01.003)
- 70. Seo, Kihwan, Michael Kuby, Aaron Golub, and Deborah Salon. **2019**. Hedonic Modeling of Commercial Property Values: Distance Decay from the Links and Nodes of Rail and Highway Infrastructure. *Transportation* 46: 859-882. (doi.org/10.1007/s11116-018-9861-z).
- 69. Sultana, Selima, Deborah Salon, and Michael Kuby. **2019**. Transportation Sustainability in the Urban Context: A Comprehensive Review. *Urban Geography* 40: 1-30. (dx.doi.org/10.1080/02723638.2017.1395635)
- 68. Qing Zhong, Alex Karner, Michael Kuby, and Aaron Golub. **2019**. A Multiobjective Optimization Model for locating Affordable Housing Investments While Maximizing Accessibility to Jobs by Public Transportation. *Environment and Planning B: Urban Analytics and City Science* 46(3): 490-510 (doi: 10.1177/2399808317719708)
- 67. Hong, Insu, Michael Kuby, and Alan Murray. **2018**. A Range-Restricted Recharging Station Coverage Model for Drone Delivery Service Planning. *Transportation Research C: Emerging Technologies* 90: 198-212. (doi.org/10.1016/j.trc.2018.02.017)
- 66. Kuby, Michael, Keiron Bailey, Fangwu Wei, John Fowler, Daoqin Tong, Qing Zhong, Oscar Lopez, and William Sheaffer. **2018**. Collaborative Geodesign for Alternative Fuel Station Location Using "Collablocation" Software. *Transportation Research Record* 2672(24): 98-108. (doi: 10.1177/0361198118790375)
- 65. Seo, Kihwan, Deborah Salon, Fraser Shilling, and Michael Kuby. **2018**. Pavement Condition and Residential Property Values: A Spatial Hedonic Price Model for Solano County, CA. *Public Works Management and Policy* 23(3):243-61. (doi.org/10.1177/1087724X18757535)
- 64. Kelley, Scott and Michael Kuby. **2017**. Decentralized Refueling of Compressed Natural Gas (CNG) Fleet Vehicles in Southern California. *Energy Policy* 109: 350-359. (doi.org/10.1016/j.enpol.2017.07.017)
- 63. Huang, Eric Yongxi, Michael Kuby, and Joseph Y.J. Chow. **2017**. Editorial for the Virtual Special Issue on "Advances in Alternative Fuel Vehicle Transportation Systems."

- *Transportation Research Part C Emerging Technologies* 74: 97-98. (dx.doi.org/10.1016/j.trc.2016.11.012)
- 62. Michael Kuby, Ismail Capar, and Jong-Geun Kim. **2017**. Efficient and Equitable Transnational Infrastructure Planning for Natural Gas Trucking in the European Union. *European Journal of Operational Research* 257: 979-991. (doi: 10.1016/j.ejor.2016.08.017)
- 61. Hong, Shuyao and Michael Kuby. **2016**. A Threshold Covering Flow-Refueling Location Model to Build a Critical Mass of Alternative-Fuel Stations. *Journal of Transport Geography* 56: 128-137. (doi: 10.1016/j.jtrangeo.2016.08.019)
- 60. Joseph, Lawrence and Michael Kuby. **2016**. The Location Types of US Retailers. *International Journal of Applied Geospatial Research* 7(4): 1-22. (doi: 10.4018/ijagr.2016100101)
- 59. Joseph, Lawrence and Michael Kuby. **2015**. Modeling Retail Chain Expansion and Maturity through Wave Analysis: Theory and Application to Walmart and Target. *International Journal of Applied Geospatial Research* **6**(4): 1-26. (doi: 10.4018/ijagr.2015100101)
- 58. Kuby, Michael, Ozgur Araz, Michael D. Palmer, and Ismail Capar. **2014**. An Efficient Online Mapping Tool for Finding the Shortest Feasible Path for Alternative-Fuel Vehicles. *International Journal of Hydrogen Energy* 39(32):18433–18439. (doi: 10.1016/j.ijhydene.2014.08.104)
- 57. Seo, Kihwan, Aaron Golub, and Michael Kuby. **2014**. Combined Impacts of Highways and Light Rail Tansit on Residential Property Values: A Hedonic Price Model for Phoenix, Arizona. *Journal of Transport Geography* 41: 53–62. (doi: 10.1016/j.jtrangeo. 2014.08.003)
- 56. Kuby, Michael and Christopher Upchurch. **2014**. Evaluating Light Rail Sketch Planning: Actual vs. Predicted Station Boardings in Phoenix. *Transportation* 41:173–192. (doi:10.1007/s11116-013-9499-9)
- 55. Kelley, Scott and Michael Kuby. **2013**. On the Way or Around the Corner? Observed Refueling Choices of Alternative-Fuel Drivers in Southern California. *Journal of Transport Geography* 33:258-267. (x.doi.org/10.1016/j.jtrangeo.2013.08.008)
- 54. Kuby, Michael, Scott Kelley, and Joseph Schoenemann. **2013**. Spatial Refueling Patterns of Alternative-Fuel and Gasoline Vehicle Drivers in Los Angeles. *Transportation Research Part D Transport and Environment* 25:84-92. (dx.doi.org/10.1016/j.trd.2013.08.004)
- 53. Joseph, Lawrence and Michael Kuby. **2013**. Regionalism in US Retailing. *Applied Geography* 37: 150-159. (dx.doi.org/10.1016/j.apgeog.2012.10.005)
- 52. Çapar, İsmail, Michael Kuby, V. Jorge Leon, and Yu-Jiun Tsai. **2013**. An Arc Cover-Path Cover Formulation and Strategic Analysis of Alternative-Fuel Station Locations. *European Journal of Operational Research* 227: 142-151 (dx.doi.org/10.1016/j.ejor.2012.11.033).
- 51. Kim, Jong-Geun and Michael Kuby. **2013**. A Heuristic Approach for the Deviation Flow Refueling Location Model. *Computers and Operations Research* 40: 1122–1131. (dx.doi.org/10.1016/j.cor.2012.10.021)
- 50. Kelley, Jason, Michael Kuby, and Rodrigo Sierra. **2013**. Transportation Network Optimization for the Movement of Indigenous Goods in Amazonian Ecuador. *Journal of Transport Geography* 28: 89-100. (dx.doi.org/10.1016/j.jtrangeo.2012.11.006)

- 49. Capar, Ismail and Michael Kuby. **2012**. An Efficient Formulation of the Flow-Refueling Location Model for Alternative-Fuel Stations. *IIE Transactions* 44(8):622-636. (doi: 10.1080/0740817X.2011.635175)
- 48. Kim, Jong-Geun and Michael Kuby. **2012**. The Deviation Flow Refueling Location Model for Optimizing a Network of Refueling Stations. *International Journal of Hydrogen Energy* 37(6):5406-5420. (doi:10.1016/j.ijhydene.2011.08.108)
- 47. Middleton, R.S., Michael J. Kuby, Ran Wei. Gordon N. Keating, and R. J. Pawar. **2012**. A Dynamic Model for Optimally Phasing in CCS Infrastructure. *Environmental Modeling and Software* 37:193-205. (doi: 10.1016/j.envsoft.2012.04.003)
- 46. Maliszewski, Paul J, Michael J. Kuby, and Mark W. Horner. **2012**. A Comparison of Multi-objective Spatial Dispersion Models for Managing Critical Assets in Urban Areas. Computers, Environment and Urban Systems 36(4):331-341. (doi:10.1016/j.compenvurbsys.2011.12.006)
- 45. Middleton, Richard S., Michael Kuby, and Jeffrey M. Bielicki. **2012**. Generating Candidate Networks for Optimization: the CO<sub>2</sub> Capture and Storage Optimization Problem. *Computers, Environment, and Urban Systems* 36(1): 18-29. (doi: 10.1016/j.compenvurbsys.2011.08.002)
- 44. Kuby, Michael, Richard Middleton, and Jeffrey Bielicki. **2011**. Analysis of Cost Savings from Networking Pipelines in CCS Infrastructure Systems. *Energy Procedia* 4: 2808-2815. (doi: 10.1016/j.egypro.2011.02.185)
- 43. Kuby, Michael, Jeffrey Bielicki, and Richard Middleton. **2011**. The Spatial Deployment of Carbon Dioxide Capture and Storage with a Price on Carbon Dioxide. *International Regional Science Review* 34: 285-305. (doi: 10.1177/0160017610397191)
- 42. Kuby, Michael, Canfei He, Barbara Trapido-Lurie, and Nicholas Moore. **2011**. The Changing Structure of Energy Supply, Demand, and CO<sub>2</sub> Emissions in China. *Annals of the Association of American Geographers* (Special issue on Energy) 101(4): 795-805. (doi: 10.1080/00045608.2011.567944)
- 41. Atkinson-Palombo, Carol and Michael Kuby. **2010**. The Geography of Advance Transit-Oriented Development in Metropolitan Phoenix, Arizona, 2000-2007. *Journal of Transport Geography* 19 (2): 189-199. (doi:10.1016/j.jtrangeo.2010.03.014)
- 40. Upchurch, Christopher and Michael Kuby. **2010**. Comparing the *p*-Median and Flow-Refueling Models for Locating Alternative-Fuel Stations. *Journal of Transport Geography* 18(6):750-758. (doi:10.1016/j.jtrangeo.2010.06.015)
- 39. Kuby, Michael. **2010**. Introduction to Special Section on Alternative Fuels. *Journal of Transport Geography* 18(6):711-714. (doi:10.1016/j.jtrangeo.2010.05.009)
- 38. Kuby, Michael and Richard Church. **2010**. Introduction to Special Issue on Location Analysis. *Networks and Spatial Economics* 10(3):293-295.(doi: 10.1007/s11067-010-9136-5)
- 37. Lim, Seow and Michael Kuby. **2010**. Heuristic Algorithms for Alternative-Fuel Stations Using the Flow-Refueling Location Model. *European Journal of Operational Research* 204(1): 51-61. (doi:10.1016/j.ejor.2009.09.032)

- 36. Kuby, Michael, Lee Lines, Ronald Schultz, Zhixiao Xie, Jong-Geun Kim and Seow Lim. **2009**. Optimal Location Strategy for Hydrogen Refueling Stations in Florida. *International Journal of Hydrogen Energy* 34: 6045-6064. (doi: 10.1016/j.ijhydene.2009.05.050)
- 35. Kalkstein, Adam, Michael Kuby, Daniel Gerrity, and James Clancy. **2009**. The Effect of Air Masses on Rail Transit Ridership. *Journal of Transport Geography* 17(3): 198-207. (doi:10.1016/j.jtrangeo.2008.07.003)
- 34. Upchurch, Christopher, Michael Kuby, and Seow Lim. **2009**. A Model for Location of Capacitated Alternative-Fuel Stations. *Geographical Analysis* 41:85-106 (in Special Issue honoring Charles S. ReVelle). (doi: 10.1111/j.1538-4632.2009.00744.x)
- 33. Lines, Lee, Michael Kuby, Ronald Schultz, James Clancy, and Zhixiao Xie. **2008**. A Rental Car Strategy for Commercialization of Hydrogen in Florida. *International Journal of Hydrogen Energy* 33(20): 5312-5325. (doi:10.1016/j.ijhydene.2008.05.102)
- 32. Tierney, Sean, and Michael Kuby. **2008**. Airline and Airport Choice by Passengers in Multi-Airport Regions: The Effect of Southwest Airlines. *Professional Geographer* 60(1): 15–32.
- 31. Tudor-Locke, Catrine, Jennie J. Kronenfeld, Sam S. Kim, Mary Benin, and Michael Kuby. **2007**. A Geographical Comparison of Prevalence of Overweight School-Aged Children: The National Survey of Children's Health 2003. *Pediatrics* 120(4): e1043-e1050.
- 30. Kuby, Michael and Seow Lim. **2007**. Location of Alternative-Fuel Stations Using the Flow-Refueling Location Model and Dispersion of Candidate Sites on Arcs. *Networks and Spatial Economics* 7(2): 129-152.
- 29. Kuby, Michael. **2006**. Prospects for Geographical Research on Alternative-Fuel Vehicles. *Journal of Transport Geography* 14(3): 234-236.
- 28. Kuby, Michael, Seow Lim, and Christopher Upchurch. **2005**. Dispersion of Nodes Added to a Network. *Geographical Analysis* 37: 384-409.
- 27. Kuby, Michael, William F. Fagan, Charles ReVelle, and William L. Graf. **2005**. Multiobjective Optimization for Dam Removal: An Example Trading Off Salmon Passage With Hydropower and Water Storage in the Willamette Basin. *Advances in Water Resources* 28(8): 845-855.
- 26. Kuby, Michael, and Seow Lim. **2005**. The Flow-Refueling Location Problem for Alternative-Fuel Vehicles. *Socio-Economic Planning Sciences* 39(2): 125-145.
- 25. Kuby, Michael, Christopher Upchurch, and Anthony Barranda. **2004**. Factors Influencing Light Rail Station Boardings in the United States. *Transportation Research Part A* 38(3): 223-247. (https://doi.org/10.1016/j.tra.2003.10.006)
- 24. Upchurch, Christopher, Michael Kuby, Michael Zoldak, and Anthony Barranda. **2004**. Using GIS to Generate Mutually Exclusive Service Areas Linking Travel On and Off a Network. *Journal of Transport Geography* 12: 23-33. (doi:10.1016/j.jtrangeo.2003.10.001)
- 23. Sommer, Curtis R., Michael Kuby, and Gordon Bloomquist. **2003**. The Economic Geography of Geothermal District Energy in a Small Community. *Geothermics* 32: 3-19.

- 22. Wentz, Elizabeth, Michael Kuby, and Brandon Vogt. **2001**. Use of Geographic Information Systems for Extraction of Peak and Canyon Locations in the State of Arizona. *Cartography and Geographic Information Science* 28(4): 259-271.
- 21. Kuby, Michael, Elizabeth Wentz, Brandon Vogt, and Randy Virden. **2001**. Experiences in Developing a Tourism Web Site for Hiking Arizona's Highest Summits and Deepest Canyons. *Tourism Geographies* 3(4): 454–473.
- 20. Kuby, Michael and Zhijun Xie. **2001**. The Effect of Restructuring on U.S. Coal Mining Labor Productivity, 1980-1995. *Energy–The International Journal* 26: 1015–1030.
- 19. Kuby, Michael, Zhongyi Xu, and Xiaodong Xie. **2001**. Railway Network Design with Multiple Project Stages and Time Sequencing. *Journal of Geographical Systems* 3: 25–47.
- 18. Kuby, Michael, Xu Zhongyi, and Xie Xiaodong. **1997**. A Minimax Method for Finding the *k*-Best Differentiated Paths. *Geographical Analysis* 29: 298–313.
- 17. Xie, Zhijun and Michael Kuby. **1997**. Supply Side-Demand Side Optimization and Cost-Environment Tradeoffs for China's Coal and Electricity Delivery System. *Energy Policy* 25: 313–326.
- 16. Kuby, Michael, Randall Cerveny, and Ronald I. Dorn. **1997**. A New Approach to Paleoclimatic Research Using Linear Programming. *Palaeogeography, Palaeoclimatology, Palaeoecology* 129: 269–290.
- 15. Kuby, Michael and Peter Cook. **1997**. The Implications of Structural Change, Reform and Congestion for Freight Traffic in China. *Asian Profile* 25: 1–21.
- 14. Wyman, Max M. and Michael Kuby. **1995**. Proactive Optimization: A Multiobjective Technology Location Model for Designing Toxic Waste Systems. *Location Science* 3: 167–185.
- 13. Wyman, Max M. and Michael Kuby. **1995**. Turning the Tables: Using Location Science to Specify Technology Rather Than Using Technology to Constrain Location. *INFOR-The Canadian Journal of Operational Research and Information Processing* 33: 118–122.
- 12. Rahman, Mushtaq and Michael Kuby. **1995**. A Multiobjective Model for Locating Solid Waste Transfer Facilities Using an Empirical Distance-Based Opposition Function. *INFOR—The Canadian Journal of Operational Research and Information Processing* 33: 34–49.
- 11. Kuby, Michael, Shi Qingqi, Thawat Watanatada, Sun Xufei, Cao Wei, Xie Zhijun, Zhou Dadi, Zhang Chuntai, Yu Xiaodong, Lin Fatang, Peter Cook, Terry Friesz, Susan Neuman, Rong Jiang, Wang Xuesheng, Gao Shenhuai. 1995. Planning China's Coal and Electricity Delivery System. *Interfaces* 25: 41–68 (Special Issue: Franz Edelman Award Papers).
- 10. Kuby, Michael and Robert Gray. **1993**. The Hub Network Design Problem with Stopovers and Feeders: The Case of Federal Express. *Transportation Research Part A* 27: 1–12.
- 9. Kuby, Michael, Susan Neuman, Zhang Chuntai, Peter Cook, Zhou Dadi, Terry Friesz, Shi Qingqi, Gao Shenhuai, Thawat Watanatada, Cao Wei, Sun Xufei, and Xie Zhijun. **1993**. A Strategic Investment Planning Model for China's Coal and Electricity Delivery System. *Energy* 18: 1–24.
- 8. Kuby, Michael and Neil Reid. **1992**. Technological Change and the Concentration of the U.S. Liner Port System: 1970-88. *Economic Geography* 69: 272–289.

- 7. Rahman, Mushtaq, A. Essam Radwan, Jonathan Upchurch, and Michael Kuby. **1992**. Modeling Spatial Impacts of Siting a NIMBY Facility. *Transportation Research Record* 1359: 133–140.
- 6. Kuby, Michael, Samuel Ratick, and Jeffrey Osleeb. **1991**. Modeling U.S. Coal Export Planning Decisions. *Annals of the Association of American Geographers* 81: 627–649.
- 5. Osleeb, Jeffrey, Samuel Ratick, Michael Kuby, Howard Olson, Lloyd Antle, and Arthur Hawnn. **1989**. The Coal Logistics System (COLS). *Transportation Research Record* 1222: 6–13.
- 4. Kuby, Michael. **1989**. A Location-Allocation Model of Losch's Central Place Theory: Testing on a Uniform Lattice Network. *Geographical Analysis* 21: 316–338.
- 3. Ratick, Samuel J. and Michael J. Kuby. **1987**. Regional Assessment of Coal Utilization Technologies Using Mathematical Programming. *Applications of Management Science* 5: 155–195.
- 2. Kuby, Michael J. **1987**. Programming Models for Facility Dispersion: the p-Dispersion and Maxisum Dispersion Problems. *Geographical Analysis* 19: 315–329.
- 1. Osleeb, Jeffrey, Samuel Ratick, Patrick Buckley, Michael Kuby, and Keumsook Lee. **1986**. Evaluating Dredging and Offshore Loading Locations for U.S. Coal Exports Using the Coal Logistics System. *Annals of Operations Research* 6: 163–180.

#### **Under Review**

- 1. Cordova-Cruzatty, Andrea C., David A. King, Michael Kuby, and Nathan Parker. Experiences and Perceptions of Multi-Family Housing Property Managers About Electric Vehicle Charging Provision. Submitted to *Transportation Research Interdisciplinary Perspectives (TRIP)*, November, 2023.
- 2. Luo, Xiangyong, Michael Kuby, Yudai Honma, Mouna Kchaou-Boujelben, and Xuesong Simon Zhou. Innovation Diffusion in EV Charging Location Decisions: Integrating Demand and Supply Through Market Dynamics. Resubmitted to *Transportation Research Part C Emerging Technologies*, January 16, 2024.
- 3. Kuby, Michael, Andrea Cordova-Cruzatty, Nathan Parker, and David A. King. EV Charging for Multifamily Housing Review of Evidence, Methods, Barriers, and Opportunities. Submitted to *Renewable and Sustainable Energy Reviews*, February 5, 2024.

## **Book Chapters**

- 13. Kuby, Michael. **2023.** Chapter 2: The origins of discrete diversity. In *Discrete Diversity and Dispersion Maximization: A Tutorial on Metaheuristic Optimization*. Rafael Martí, Anna Martínez-Gavara, editors. Springer Optimization and Its Applications series, No. 204. Cham, Switzerland: Springer Nature, pp. 17-40. (https://link.springer.com/chapter/10.1007/978-3-031-38310-6\_2)
- 12. Kuby, Michael, Andrew Martinez, Scott Kelley, and Gil Tal. **2023.** Chapter 10: Hydrogen location selection and optimization: advanced models and behavioral evidence. *Hydrogen Economy: Supply Chain, Life Cycle Analysis and Energy Transition for Sustainability,* 2<sup>nd</sup> Ed. Antonio Scipioni, Alessandro Manzardo, and Jingzheng Ren, editors, London: Academic Press. (https://www.elsevier.com/books/hydrogen-economy/scipioni/978-0-323-99514-6)

- 11. Sultana, Selima, Deborah Salon, and Michael Kuby. **2021**. Transportation Sustainability in the Urban Context: A Comprehensive Review. *Geographic Perspectives on Urban Sustainability*. V. Kelly Turner, David H. Kaplan, editors, Abingdon, UK: Routledge. (<a href="https://www.routledge.com/Geographic-Perspectives-on-Urban-Sustainability/Turner-Kaplan/p/book/9780367671938">https://www.routledge.com/Geographic-Perspectives-on-Urban-Sustainability/Turner-Kaplan/p/book/9780367671938</a>)
- 10. Xiong, Fusheng, Michael Kuby, and Wayne Frasch. **2020**. Accelerating DNA Computing via qPCR Answer Read Out. *Novel Trends in the Traveling Salesman Problem*. Donald Davendra and Magdalena Bialic-Davendra, editors. London: Intech. (doi: 10.5772/intechopen.91663).
- 9. Kuby, Michael. **2016**. Battery Swapping. In *Minicars, Maglevs, and Mopeds: Modern Modes of Transportation Around the World*, S. Sultana and J. Weber, editors, Santa Barbara, CA: ABC-CLIO, pp. 31-33.
- 8. Schwartz, Henry G., Michael Meyer, Cynthia J. Burbank, Michael Kuby, Clinton Oster, John Posey, Edmund J. Russo, and Arthur Rypinski. **2014**. Ch. 5: Transportation. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 130-149. (doi:10.7930/J06Q1V53). <a href="http://nca2014.globalchange.gov/report/sectors/transportation">http://nca2014.globalchange.gov/report/sectors/transportation</a>
- 7. Joseph, Lawrence and Michael Kuby. **2011**. "Gravity Modeling and its Impact on Location Analysis." Ch. 18 in *Principles of Location Science*, H. A. Eiselt and V. Marianov, editors. New York: Springer-Verlag (International Series in Operations Research and Management Science), pp. 423-443.
- 6. Golub, Aaron, Michael Kuby, and Jason Kelley. **2009**. "Introduction." Ch. 1 in Michael Kuby and Aaron Golub (editors). *From Here to There: Transportation Opportunities for Arizona*. Report from the 94th Arizona Town Hall, April 2009, Tucson Arizona, pp. 33-48: www.aztownhall.org/reports/94.asp.
- 5. Kuby, Michael. **2009**. "Gas Prices." Ch. 2 in Michael Kuby and Aaron Golub (editors). *From Here to There: Transportation Opportunities for Arizona*. Report from the 94th Arizona Town Hall, April 2009, Tucson Arizona, pp. 49-60: <a href="https://www.aztownhall.org/reports/94.asp">www.aztownhall.org/reports/94.asp</a>.
- 4. Kuby, Michael and William Sheaffer. **2009**. "Alternative-Fuel Vehicles." Ch. 16 in Michael Kuby and Aaron Golub (editors). *From Here to There: Transportation Opportunities for Arizona*. Report from the 94th Arizona Town Hall, April 2009, Tucson Arizona, pp. 195-206: www.aztownhall.org/reports/94.asp.
- 3. Kuby, Michael and Zhijun Xie. **2004**. Reducing Energy Shortages and Pollution in China: The World Bank's Coal Transport Studies. In *World Minds: Geographical Perspectives on 100 Problems* (Commemorating the 100<sup>th</sup> Anniversary of the Association of American Geographers 1904-2004), D. G, Janelle, B. Warf, and K. Hansen, editors. Dordrecht: Kluwer Academic Publishers, pp. 351-356.
- Zhijun Xie and Michael Kuby. 2002. Pricing Electric Power Transmission: A Network Equilibrium Perspective. United States Association of Energy Economics/International Association of Energy Economics, 22<sup>nd</sup> North American Conference Proceedings, Vancouver, British Columbia, October 6-8, 2002.
- 1. Osleeb, Jeffrey, Samuel Ratick, Michael Kuby, and Keumsook Lee. **1987**. Interperiod Network Storage Location-Allocation Models. In *Spatial Analysis and Location-Allocation Models*, A. Ghosh and G. Rushton, editors. New York: Van Nostrand Reinhold, pp. 269-301.

#### **Refereed Conference Proceedings**

- 2007 Middleton, Richard, Herzog, Howard, Keating, Gordon, Kuby, Michael and Liao, X., 2007. Optimization for Geologic Carbon Sequestration and Carbon Credit Pricing. Conference Proceedings of the 6th Annual Carbon Capture & Sequestration Conference, Pittsburgh, PA, May 2007.
- 2007 Kuby, Michael, Lee Lines, Ron Schultz, Zhixiao Xie, Seow Lim, Jong-Geun Kim, and James Clancy. 2007. Location Strategies for the Initial Hydrogen Refueling Infrastructure in Florida. Proceedings of the National Hydrogen Association Annual Hydrogen Conference, San Antonio, TX, March 19-22, 2007.
- 2004 Kuby, Michael, Seow Lim, and Kedi Wang. 2004. A Model for Optimal Location of Hydrogen Refueling Stations: An Arizona Case Study. *Proceedings of the National Hydrogen Association Annual Hydrogen Conference*, Los Angeles, CA, April 26-30, 2004.

### **Non-Refereed Conference Proceedings**

- 1993 Kuby, Michael. 1993. Review of the NEMS Coal Market Module. *Proceedings of the National Energy Modeling System Conference*, Energy Information Administration, Office of Integrated Analysis and Forecasting, U.S. Department of Energy, DOE/EIA-0566, pp. 959–987.
- 1992 Kuby, Michael. 1992. Prospects for Coal Shipping in the Yellow Sea Region: Supply, Demand, Technology, and Environment. *Proceedings of the Far East-U.S. Symposium on Maritime Development of the Northeast Asian Pacific Rim*, Vol. III: 79–116.
- 1984 Sham, Chi Ho and Michael Kuby. 1984. Spatial Patterns of Ozone Concentrations in Massachusetts. *Proceedings, New England-St. Lawrence Valley Geographical Society* 14:46–53.

## **Encyclopedia Articles**

2009 Kuby Michael J, Tyler D. Roberts, Christopher D. Upchurch, Sean Tierney. 2009. Network Analysis. In Kitchin R, Thrift N (eds) *International Encyclopedia of Human Geography*, Volume 7, pp. 391-398. Oxford: Elsevier.

## **Book Reviews**

- 2014 Kuby, Michael. 2014. Moving Towards Low Carbon Mobility, Moshe Givoni, David Banister (Eds.). Edward Elgar Publishing Ltd., Cheltenham, UK (2013). *Journal of Transport Geography* (doi: 10.1016/j.jtrangeo.2014.05.006)
- 1997 Black, William R., Andrew Goetz, Michael Kuby, and Bruce Ralston. 1997. Conference Reports: Transport Geography Sessions at the Association of American Geographers Annual Meeting, 1 April 1997, Fort Worth, Texas. *Journal of Transport Geography* 5:221–223.
- 1994 Kuby, Michael. 1994. The International Petrochemical Industry: Evolution and Location, K. Chapman (Oxford: Basil Blackwell, 1991). *Annals of Regional Science* 28:323–324.
- 1993 Kuby, Michael. 1993. The Ports and Waterways Sessions of the 1993 Association of American Geographers Annual Meetings. *Journal of Transport Geography* 1:280–281.

- 1993 Kuby, Michael. 1993. Linear Programming: An Introduction, B. Fiering (Beverly Hills: Sage, 1986). *Annals of Regional Science*.
- 1992 Kuby, Michael. 1992. MathPro (Mathematical Programming Software), MathPro, Inc. (Washington). *Geographical Analysis* 24:186–188.
- 1991 Kuby, Michael. 1991. U.S. Railroad Policy: Uncle Sam at the Throttle, J. Orenstein (Chicago: Nelson-Hall, 1990). *Journal of Regional Science* 31:237–240.
- 1990 Kuby, Michael. 1990. *Systems of Cities and Facility Location*, P. Hansen, M. Labbe, D. Peeters, and J.F. Thisse, and J. Vernon Henderson (Chur: Harwood Academic Publishers, 1987). *Geographical Analysis* 22:177–180.

#### **Technical Reports**

- Joel Rinebold, Michael Kuby, Scott Kelley, Oscar G. Lopez Jaramillo, Darren Ruddell, Rhian Stotts, Aimee Krafft, and Carol Atkinson-Palombo. 2019. *Hartford Hydrogen Station Geodesign Workshop Final Report*. Arizona State University, Tempe, AZ:
  <a href="https://web.asu.edu/sites/default/files/kuby\_nsf">https://web.asu.edu/sites/default/files/kuby\_nsf</a> <a href="
- 2017 Fedorschak, Kena, Vikash Bajaj, Srinivasa Kandala, Jon Miller, Rahul Salla, Michael Kuby, Daoqin Tong, Wangshu Mu, Qunshan Zhao. Voting Precinct Design Tool: Resource Optimization for Election Administrators. White paper. ASU Decision Theater Network, Tempe, AZ.
- 2015 Stechel, Ellen, Michael Kuby, and Mikhail Chester. 2015. Report by Wireless Streetcar Advisory Group, City of Tempe, May 14 City Council Meeting.
  <a href="http://documents.tempe.gov/sirepub/cache/1207/dk0ehpxthcecmj40bww0efhx/195156160522202">http://documents.tempe.gov/sirepub/cache/1207/dk0ehpxthcecmj40bww0efhx/195156160522202</a>
  <a href="http://documents.tempe.gov/sirepub/cache/1207/dk0ehpxthcecmj40bww0efhx/195156160522202">http://documents.tempe.gov/sirepub/cache/1207/dk0ehpxthcecmj40bww0efhx/195156160522202</a>
  <a href="http://documents.tempe.gov/sirepub/cache/1207/dk0ehpxthcecmj40bww0efhx/195156160522202">http://documents.tempe.gov/sirepub/cache/1207/dk0ehpxthcecmj40bww0efhx/195156160522202</a>
- 2014 Kuby, Michael and Aaron Golub. 2014. Bicycle Network Connectivity Project for SRP Service Area. Walton Sustainability Solutions Initiative, July 2014. http://www.public.asu.edu/~mikekuby/BikeNetworkConnectivity/
- Kuby, Michael, Lee Lines, Ron Schultz, Zhixiao Xie. 2007. *Hydrogen Refueling Infrastructure and Rental Car Strategies for Commercialization of Hydrogen in Florida*. Final Report to Florida Hydrogen Initiative, FHI Agreement No. 2005-01, US Department of Energy Grant Award No. DE-FC36-04G014225, June 30, 2007.
- 2005. Kuby, Michael, Sean Tierney, Tyler Roberts, Christopher Upchurch. 2005. A Comparison of Geographic Information Systems, Complex Networks, and Other Models for Analyzing Transportation Network Topologies. NASA Langley Research Center, NASA/CR-2005-213522, http://techreports.larc.nasa.gov/ltrs/PDF/2005/cr/NASA-2005-cr213522.pdf.
- 1998 Kuby, Michael, Eric Matranga, Sheila Conway. 1998. Sustainability in Scottsdale: Geographic Analysis of Resource and Waste Flows. Advanced Technology Program, City of Scottsdale, and Science Applications Program, NASA. September 25, 1998.
- 1998 Kuby, Michael. 1998. Analysis and Forecast of Labor Productivity in U.S. Coal Mining. National Energy Modeling System (NEMS) Model Quality Audit (MQA). U.S. Department of Energy, Energy Information Administration. May 20, 1998.

- 1997 Kuby, Michael. 1997. Empirical Analysis of Capacity Expansion in the Coal Production Industry. National Energy Modeling System (NEMS) Model Quality Audit (MQA).US Department of Energy, Energy Information Administration. April 14 1997.
- 1996 Kuby, Michael. 1996. Potential for Loss or Rail Traffic to Roads: A Cost-Distance Analysis. China Transport Strategy Paper, Interim Report No. 8. The World Bank, China and Mongolia Department, Transport Operations Division, February 27, 1996.
- 1996 Kuby, Michael. 1996. Projection of Passenger Transport Demand for 2005. China Transport Strategy Paper, Interim Report No. 7. The World Bank, China and Mongolia Department, Transport Operations Division, February 16, 1996.
- 1996 Kuby, Michael. 1996. Projection of Freight Transport Demand Elasticity and Modal Shares. China Transport Strategy Paper, Interim Report No. 6. The World Bank, China and Mongolia Department, Transport Operations Division, January 30, 1996.
- 1995 Kuby, Michael. 1995. Rail-Water Competition for Coal Transport on the Shanxi-Shanghai Corridor. China Transport Strategy Paper, Interim Report No. 4. The World Bank, China and Mongolia Department, Transport Operations Division, June, 1995.
- 1995 Kuby, Michael (editor and main author). 1995. Investment Strategies for China's Coal and Electricity Delivery System. Report No. 12687-CHA (Gray Cover). The World Bank, China and Mongolia Department, Transport Operations Division, March 8, 1995.
- Kuby, Michael (editor and main author). 1994. Investment Strategies for China's Coal and Electricity Delivery System, Volume II, Supplementary Report: The CTS Analysis System. Green Cover Report. The World Bank, China and Mongolia Department, Transport Operations Division, June, 1994.
- 1987 Osleeb, Jeffrey, Samuel Ratick, Michael Kuby and Charles Hinds. 1987. Coal Logistics System: User's Manual (Volume 1); Final Report (Volume 2). Management Technology and Data Systems.

#### **Web Sites**

Kuby, Michael, Fangwu Wei, Oscar Lopez, Keiron Bailey, Daoqin Tong, John Fowler, and Qing Zhong. *Collablocation: Geodesign for Facility Location:* https://collablocation.shinyapps.io/home/.

Fangwu Wei, Kuby, Michael, Fangwu Wei, Oscar Lopez, Keiron Bailey, Daoqin Tong, John Fowler, and Qing Zhong. *Collablocation:* <a href="https://github.com/collablocation">https://github.com/collablocation</a>.

Kuby, Michael, Elizabeth Wentz, and Brandon Vogt. 2000. *Arizona's 20-20 Challenge:* <a href="http://www.az2020.org">http://www.az2020.org</a>.

Palmer, Michael D., Michael Kuby, Ozgur Araz, and Ismail Capar. 2014. *Alternative Fuel Vehicle Routing with Range and Refueling*: <a href="http://www.afvrouting.com">http://www.afvrouting.com</a>.

#### SPONSORED RESEARCH

National Science Foundation, Center for Efficient Vehicles and Sustainable Transportation Systems (EV-STS); awarded April 2022 (period 2022-2023); David A. King (PI), Michael Kuby (co-I), Hongbin Yu (co-I); \$45,000; "Residential Self-Storage Facilities: A Complement for Transit Oriented Development?"

Salt River Project (SRP), Joint Research Program (JRP); awarded May 2021 (period 2021-2022); David A. King (PI), Nathan Parker (co-I), Michael Kuby (co-I); \$69,913; "EV Charging for Multifamily Housing: Barriers and Opportunities."

Airport Cooperative Research Program (ACRP), Transportation Research Board (TRB), Graduate Research Award; awarded October, 2020; (period: 2020-2021); Michael Kuby (faculty mentor), Drew Taplin (graduate awardee); \$12,000; "Analysis of Ultra Low-cost Carriers and Airport Choice."

NSF, Human-Environment and Geographical Sciences (HEGS); awarded August, 2020; (period:2020-2021); Michael Kuby (PI); \$42,083, DCL INTERN Supplement for Oscar Lopez Jaramillo; "Mixed Methods Analysis of Refueling Infrastructure Preferences for Adopting Fuel-Cell Vehicles."

NSF, Geography and Spatial Science; awarded February 2017; (period: 2017-2020); Michael Kuby (PI), Scott Kelley, University of Nevada at Reno (co-PI); \$275,000, of which ASU share is \$136,000; "Mixed Methods Analysis of Refueling Infrastructure Preferences for Adopting Fuel-Cell Vehicles."

Arizona Board of Regents – Research Innovation Fund, awarded 2016, renewed 2017; (period 2016-2018); Larry Head, University of Arizona (PI); Michael Kuby (PI); Edward Smaglik, Northern Arizona University (PI); \$650,000 of which ASU share is \$388,000; "Arizona Tri-University Transportation Research Center Portfolio – Southwest Freight Super-Corridor."

Alfred P. Sloan Foundation, awarded 2015; (period: 2015-2016); Amy Myers Jaffe, University of California at Davis (PI); \$250,000 of which ASU share is \$50,000 Nathan Parker (PI), Michael Kuby and Scott Kelley (co-PIs); "The technological, economic and environmental potential of natural gas as a sustainable fuel in the United States."

Salt River Project; awarded February 2014; (period: Feb-May 2014); Michael Kuby and Aaron Golub (co-PIs); \$45,574; "Improved Valley Bicycle Network Planning and Coordination."

NSF, Geography and Spatial Science; awarded July 2010; (period: 2010-2012); Michael Kuby (PI); \$87,573; "Spatial Refueling Patterns of Drivers of Alternative-Fuel and Conventional Vehicles."

NSF, Geography and Spatial Science, Research Experience for Undergraduates (REU) Supplement; awarded July 2010; (period: 2010-2012); Michael Kuby (PI); \$7,200; "Spatial Refueling Patterns of Drivers of Alternative-Fuel and Conventional Vehicles."

US Department of Energy, Energy Efficiency and Community Block Grant Program; awarded August 2010; (period: 2010-2013); Rob Melnick (PI), Harvey J. Bryan, Matthew P. Fraser, Timothy J. James, Michael Kuby, Susan E. Ledlow, Patrick E. Phelan, Agami T. Reddy (co-PIs); \$3,750,000; "Energizing Phoenix: Transforming Energy Efficiency and Energy Behaviors in

Phoenix: Recovery and Retrofit along a Light Rail Corridor." (Partners with City of Phoenix and Arizona Public Service).

Florida Hydrogen Initiative, awarded January 2006; (period: 2006-2007); Lee Lines, Rollins College (PI); Michael Kuby (co-PI); Ronald Schultz, Florida Atlantic University (co-PI); \$160,000; "Location Strategies for the Initial Hydrogen Refueling Infrastructure in Florida." FHI funding from U.S. Department of Energy.

NASA Langley Research Center, awarded 2004; (period: 2004); Michael Kuby (PI); \$15,042; "Geographic Information Systems and Other Methods for Analyzing Transportation Network Topologies."

NSF, Decision, Risk, and Management Science Program, awarded June 2002; (period: 2002-2004); Michael Kuby (PI); \$118,784; "Extending Flow Capturing Models for Refueling of Alternative Fuel Vehicles."

Arizona Office of Tourism, awarded January, 1999; (period: 1999); Michael Kuby and Elizabeth Wentz (PIs); \$7,000; "Arizona's 20-20 Challenge."

NSF, awarded January 1998; (period: 1998-2000); Patricia Gober (PI), Michael Kuby (PI); \$81,974; "A Hands-on Approach to Introductory Human Geography."

ESRI, Inc. and Autodesk, Inc., awarded August, 1993; (period: 1993); Zhijun Xie and Michael Kuby (PIs); \$18,000; "GIS Analysis of Environmental Aspects of the China Coal Transport Study." Geodyssey Environmental GIS Research Grants, International Geographic Information Foundation.

## SPONSORED RESEARCH (team member)

NSF, awarded 2004; (period: 2004-2010); Charles Redman and Nancy Grimm (PIs); \$4,419,000; "Land Use Change and Ecological Process in an Urban Ecosystem of the Sonoran Desert. Central Arizona-Phoenix – Long Term Ecological Research Center (CAP-LTER), Phase 2" (Modeling Team member).

NSF, awarded 2004; (period: 2004-2010); Patricia Gober and Charles Redman (PIs); \$7,497,944; "Decision Center for a Desert City: The Science and Policy of Climate Uncertainty" (Decision Science Team member).

NSF, awarded 1998; (period: 1998-2004); Charles Redman and Nancy Grimm (PIs); \$4,769,178; "Land Use Change and Ecological Process in an Urban Ecosystem of the Sonoran Desert, Central Arizona-Phoenix Long Term Ecological Research Center (CAP-LTER)" (one of 32 additional core scientists and Modeling Team member).

NASA, Mission to Planet, Earth Science Applications Program, awarded 1997; (period: 1997-1999); Mark Ledbetter and Frederick Steiner (co-PIs); "Sustainability in Scottsdale," Michael Kuby and Anthony Brazel, co-Principal Directors of Track Two – Local Sustainability, \$16,925.

University of Texas-Austin, Center for Environmental Studies in Latin America; awarded 2006; (period: 2006-2008); Michael Kuby (PI); \$11,000; Rodrigo Sierra (PI); "Optimization Modeling for Moving Products from a Roadless Indigenous Area in the Ecuadorian Amazon." (Original funding of \$693,093 to UT-Austin from Gordon and Betty Moore Foundation; Rodrigo Sierra (PI); "Andes-Amazon Initiative: Conservation Effort in Ecuador."

Sapient Corp., Boston; awarded 1997; (period: 1997-1998); Samuel Ratick and Michael Kuby (co-PIs); \$12,000; "Pipeline Scheduling Decision Support System—Concept Paper and Demonstration Model."

US Department of Energy; awarded 1997; (period: 1997–1998); Michael Kuby (PI); \$20,000; "Examination of Compositional Changes in Coal Mine Labor Productivity." National Energy Modeling System (NEMS), Model Quality Audit.

US Department of Energy; awarded 1996; (period: 1996–1997); Michael Kuby (PI); \$24,900; "Empirical Analysis of Capacity Expansion in the Coal Production Industry." National Energy Modeling System (NEMS), Model Quality Audit.

US Department of Energy; awarded 1996; (period: 1996); Michael Kuby (PI); \$1,312; "Assessment and Recommendations for Mine Capacity Expansion in the Coal Market Module." National Energy Modeling System (NEMS), Model Quality Audit.

The World Bank; awarded 1994; (period: 1994-1997); Philip Anderson (Task Manager), Michael Kuby (Lead Modeling Consultant); approximately \$130,000 for World Bank costs, excluding Ministry of Railways costs; "China, Cost Effective Technology Evaluation for Seventh Railway Loan." Original funding from The Policy and Human Resources Development Fund.

The World Bank; awarded 1989; (period: 1989-1994); Thawat Watanatada (Task Manager), Michael Kuby (Technical Director); approximately \$750,000 for World Bank costs, excluding Chinese State Planning Commission costs; "China, Coal Transport Study." Original funding The Policy and Human Resources Development Fund, United Nations Development Program, and The World Bank.

U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources; awarded 1986; (period: 1986-1987); Osleeb (PI), Michael Kuby, Co-investigator; \$55,000; "Updating and Testing the Coal Logistics System."

## FELLOWSHIP AND AWARDS

### External

NSF; awarded June, 1995; (period: 1995-1996); Susan Hanson (PI), Michael Kuby (Module Author); \$750 stipend plus travel expenses; "Hands-On: Developing Active Learning Modules on the Human Dimensions of Global Change." For workshop at Clark University for development of a hands-on learning module for the Commission on College Geography 2.

U.S. Department of Transportation, Federal Highways Authority; awarded September 2005; (period: 2005-2006); Michael Kuby (PI); \$1,500; Eisenhower Fellowship For Christopher Upchurch.

### **Internal**

Institute for Social Science Research, awarded November, 2015; (period: 2015); Michael Kuby (PI) and Scott Kelley; \$5,000; "Consumer Survey of Refueling Infrastructure Preferences for Purchasing Fuel Cell Vehicles."

ASU Center for Environmental Studies; awarded December, 2002; (period: 2002-03); Michael Kuby (PI); \$15,000; "Multiobjective Reserve Design for Phoenix Area Open Space.

ASU College of Liberal Arts and Sciences, Grant Award Program to Advance the Quality of Undergraduate Education; awarded May, 2002; (period: 2002-03); Michael Kuby, Robert Edsall, Talbot Brooks, and Kenneth Madsen (PIs); \$11,000; "An Initiative for Undergraduate Teaching Excellence in Geography."

ASU College of Liberal Arts and Sciences, Grant Award Program to Advance the Quality of Undergraduate Education; awarded May, 1995; (period: 1995); Michael Kuby and Patricia Gober (PIs); \$8,296 plus \$2,016 from the Department of Geography = \$10,312; "An Initiative for Undergraduate Teaching Excellence in Geography."

ASU Center for Asian Studies; awarded July, 1991; (period: 1991); Michael Kuby (PI); \$700; "Geography of Transportation Course Development." Original funding from U.S. Department of Education; Laurel Rodd (PI); "East Asian Course Development."

ASU Program for Faculty Development; awarded April 1989; (period: 1989); Michael Kuby (PI); \$1,400; "Courseware Acquisition Grant for Purchasing PC-Globe+."

ASU College of Liberal Arts and Sciences, Mini-Grant; awarded April 1989; (period: 1989-90); Michael Kuby (PI); \$500; "U.S. Liner Ports: Concentration or Deconcentration."

ASU College of Liberal Arts and Sciences, Faculty Grant-in-Aid; awarded March 1989; (period: 1989-10); Michael Kuby (PI); \$5,000; "Modeling Central Place Theory on Uniform Networks."

### **PRESENTATIONS**

#### **Invited Talks**

Kuby, Michael. 2023. "Optimal and Collaborative Approaches to Planning Hydrogen Refueling Infrastructure in the Hartford Region," University of Connecticut, Storrs, October 20, 2023.

Kuby, Michael. 2019. "Should I Get a Hydrogen Fuel Cell Vehicle? Ethnographic Content Analysis and Decision Trees for Drivers in California," University of Nevada, Reno, March 6, 2019.

Kuby, Michael. 2018. "Node-based vs. Path-based Planning for the Initial Roll-out of Alternative-Fuel Stations: Evidence from Optimization Models and Survey Research," Kaken Symposium on Advanced Vehicle Systems with Alternative Vehicles: Critical Path to Install AFV Infrastructures, Institute of Industrial Science, University of Tokyo, Japan, December 10, 2018.

Kuby, Michael. 2018. "Hydrogen Infrastructure Planning for Connecticut: Integrating Regional, Urban, and Micro Scale Modeling," Urban Operations Research Workshop, Nanzan University, Nagoya, Japan, December 8, 2018.

Kuby, Michael. 2018. "The Flow-Refueling Location Model: 15 Years of Alternative Fuel Infrastructure Optimization," Faculty Seminar, Nanzan University, Nagoya, Japan, December 7, 2018.

Kuby, Michael. 2018. "Collaborative "Geodesign" for Alternative Fuel Station Location Using Open-Source "Collablocation" Software," Graduate Student Seminar, Nanzan University, Nagoya, Japan, December 6, 2018.

Kuby, Michael. 2017. "Sustainable Transportation for the 86%: Location Models and Survey Research for Planning Alternative-Fuel Station Infrastructure," University of North Carolina at Greensboro, Department of Geography, November 5, 2017.

Kuby, Michael. 2017. "Geodesign for Fast-Charging Infrastructure Planning." Electric Power Research Institute, Infrastructure Working Council, Salt River Project, Tempe, AZ October 26, 2017. (+ webcast)

Kuby, Michael. 2017. "COLLABLOCATION: A Collaborative Online Laboratory for Location Planning for FAST Act Mapping." US Department of Energy, Clean Cities Program, South Central Region Annual Meeting, Phoenix, AZ October 11, 2017.

Wei, Fangwu, Michael Kuby, John Fowler, Daoqin Tong, Keiron Bailey, Qing Zhong. 2017. "Collablocation: A collaborative laboratory for location planning." Savvy Mapper Competition, American Association of State Highway and Transportation Officials (AASHTO) National GIS-T Symposium, Phoenix, AZ, April 10, 2017.

Kuby, Michael. 2017. Fleming Lecture, "Sustainable Transportation for the 86%: Location Models and Survey Research for Planning Alternative-Fuel Station Infrastructure," Transportation Geography Specialty Group, Association of American Geographers, Annual Meeting, Boston, MA, April 7, 2017.

Kuby, Michael. 2016. Transportation and Arizona. Valley Leadership Institute, Phoenix, AZ, November 4, 2016.

Kuby, Michael. 2015. Operations Research, GIS, and Survey Research for Optimizing the Rollout of Alternative-Fuel Stations, Arizona State University, School of Computing, Informatics, & Decision Systems Engineering, November 13, 2015.

Kuby, Michael and Scott Kelley. 2015. Modeling CNG Use: Our Key Findings Since 2002. University of California, Davis, Institute for Transportation Studies, Natural Gas in Transportation Workshop. October 2, 2015.

Kuby, Michael. 2015. Optimizing the Rollout of Filling Stations for Alternative-Fuel Vehicles, Arizona State University, School of Sustainable Engineering and the Built Environment, April 10, 2015.

Kuby, Michael. 2014. A trip-based approach to plan the rollout of hydrogen fueling stations. European Hydrogen Energy Conference, Workshop on "Building a Hydrogen Infrastructure for Transportation: From Scratch to Reality," Seville, Spain, March 2014.

Kuby, Michael. 2014. Range Anxiety and the Chicken-and-Egg Syndrome: Spatial Optimization and Survey Research for the Transition to Alternative-Fuel Vehicles, Arizona State University, School of Public Affairs, February 7, 2014.

Kuby, Michael. 2012. Planning for Range Anxiety: Spatial Optimization and Survey Research for the Transition to Alternative-Fuel Vehicles, Texas A&M University, Department of Industrial Distribution, March 20, 2012.

Kuby, Michael. 2011. Range Anxiety, Chicken and Eggs, and the Valley of Death: Spatial Planning for the Transition to Alternative-Fuel Vehicles, Colgate University, Department of Geography, GTU Induction Lecture, October 21, 2011.

Kuby, Michael. 2011. China's CO2 Challenge: Kicking the Coal Habit, Colgate University, Environmental Studies Program, October 21, 2011.

Kuby, Michael. 2011. Range Anxiety and the Chicken-and-Egg Syndrome: Spatial Optimization and Survey Research for the Transition to Alternative-Fuel Vehicles, Arizona State University, School of Geographical Sciences and Urban Planning, October 14, 2011.

Kuby, Michael. 2011. Range Anxiety and the Chicken-and-Egg Syndrome: Spatial Optimization and Survey Research for the Transition to Alternative-Fuel Vehicles, Clark University, Marsh Institute Lecture, October 11, 2011.

Kuby, Michael. 2010. Optimal Location of Refueling Stations for the Transition to Alternative-Fuel Vehicles, Lehigh University, Department of Industrial Engineering, October 8, 2010.

Kuby, Michael. 2010. Refueling Infrastructure and Rental Car Strategies for Commercialization of Alternative-Fuel Vehicles in Florida, Hunter College – CUNY, Department of Geography, March 3, 2010.

Kuby, Michael. 2010. Refueling Infrastructure and Rental Car Strategies for Commercialization of Hydrogen Vehicles in Florida, University of South Carolina, Department of Geography, February 26, 2010.

Kuby, Michael. 2010. Refueling Infrastructure and Rental Car Strategies for Commercialization of Alternative-Fuel Vehicles in Florida, Los Alamos National Laboratory, Earth and Environmental Sciences Division, February 11, 2010.

Kuby, Michael. 2009. Optimal Refueling Infrastructure Modeling for Hydrogen Vehicles in Florida. Peking University, College of Urban and Environmental Sciences, November 10, 2009.

Kuby, Michael. 2009. Hydrogen Refueling Infrastructure and Rental-Car Strategies for Commercialization of Hydrogen in Florida. University of Connecticut, Departments of Geography and Civil Engineering, September 15, 2009.

Lines, Lee, Michael Kuby, Ronald Schultz, Zhixiao Xie. 2008. TVP1: The Florida Hydrogen Initiative: Hydrogen Refueling Infrastructure and Rental Car Strategies for Commercialization of Hydrogen in Florida. U.S. Department of Energy Hydrogen Program, 2008 Merit Review, June 10, 2008 (invited poster).

Kuby, Michael. 2008. Ten Things to Know about Gasoline Prices and Markets. Gas Price Summit, Arizona State Legislature, June 24, 2008.

Kuby, Michael. 2008. Hydrogen Refueling Infrastructure and Rental-Car Strategies for Commercialization of Hydrogen in Florida. Geographic Information Science and Technology Group, Oak Ridge National Laboratory, June 11, 2008.

Kuby, Michael. 2006. China Climatology Case Study. Academic Decathlon Seminar for Teachers, ASU Center for Asian Research, December 2, 2006.

Kuby, Michael. 2006. Optimal Location of Hydrogen Refueling Stations for the Transition to Hydrogen Vehicles. Arizona State University, Department of Geography, March 31, 2006.

Kuby, Michael. 2006. Optimal Location of Hydrogen Refueling Stations for the Transition to Hydrogen Vehicles. University of Texas-Austin, Department of Geography, March 3, 2006.

Kuby, Michael. 2005. Optimal Location of Hydrogen Refueling Stations for the Transition to Hydrogen Vehicles. University of Arizona, Department of Geography, October 14, 2005.

Kuby, Michael. 2005. Optimal Location of Refueling Stations for Hydrogen Railways. First International Hydrail Conference, Charlotte, NC, May 6, 2005.

Kuby, Michael. 2005. Optimal Location of Hydrogen Refueling Stations. University of Denver, Department of Geography, February 24, 2005.

Kuby, Michael. 2004. Geography of China. National Consortium for Teaching about Asia (NCTA) seminar. ASU Center for Asian Studies, Tempe, AZ, March 20, 2004.

Kuby, Michael and Christopher Upchurch. Factors Influencing Light-Rail Station Boardings in the United States. ASU Light Rail Interest Group, Tempe, AZ, Oct. 31, 2003.

Kuby, Michael. The Changing Structure of China's Energy System, A.T. Steele Lecture, Center for Asian Studies, Arizona State University, April 17, 2003.

Kuby, Michael. 2003. Geography of China. National Consortium for Teaching about Asia (NCTA) seminar. ASU Center for Asian Studies, Tempe, AZ, March 1, 2003.

Kuby, Michael. Analysis and Forecast of Labor Productivity in U.S. Coal Mining, Coal Productivity Seminar, U.S. Dept. of Energy, Energy Information Administration. April 9, 1998.

Kuby, Michael. Operations Research Modeling of China's Railway System, Center for Advanced Transportation Systems Research, College of Engineering, Arizona State University, Apr 4, 1996.

Kuby, Michael (lead author of sixteen). China Coal Transport Study: Investment Strategies for China's Coal and Electricity Delivery System, 23rd Annual Franz Edelman Award Session, College on the Practice of Management Science, The Institute for Management Science (TIMS), Boston, MA, April 24, 1994.

Kuby, Michael. Planning China's Coal and Electricity Delivery System. Department of Geography, Boston University, February 15, 1994.

Kuby, Michael. Investment Strategies for China's Coal and Electricity Delivery System. Department of Geography, University of Illinois, December 13, 1993.

Kuby, Michael, Thawat Watanatada, Shi Qingqi, and Sun Xufei. The Coal Transport Study Decision Support System. Coal Transport Study Report Meeting, World Bank Resident Mission in China, Beijing, China, October 9, 1993.

Kuby, Michael. 1993. Review of the NEMS Coal Market Modules. National Energy Modeling System Conference, Arlington, VA, February, 1993.

Kuby, Michael. Prospects for Coal Shipping in the Yellow Sea Region: Supply, Demand, Technology, and Environment. Far East-U.S. Symposium on Maritime Development of the Northeast Asian Pacific Rim, Korea Maritime Institute, Seoul, August 18-20, 1992.

Kuby, Michael. A Strategic Investment Planning Model for Alleviating Shortages in China's Coal and Electricity Delivery System, Northwestern University, Transportation Center, Colloquium Series, February 7, 1992.

Kuby, Michael. China's Coal Shortage: Problems and Solutions, University of Arizona, Department of Geography, April, 1990.

Kuby, Michael. A Location-Allocation Model of Losch's Central Place Theory: Testing on Uniform Networks, Association of American Geographers Annual Meeting, Nystrom Award Competition, Baltimore, MD, March, 1989.

Kuby, Michael. Temporal and Spatial Energy Logistics Models for Infrastructure Investments, presented at the Department of Industrial Management, Indian Institute of Science, Bangalore, November, 1985.

Kuby, Michael. The Boston University Coal Logistics System Planning Model, U.S. Army Corps of Engineers, North Atlantic Division, Deep Draft Navigation Economic Conference, Ocean City, NJ, May, 1985.

### Workshops Led

Lopez, Oscar and Michael Kuby. Collaborative Mapping Workshop for Micro-mobility Hub Planning in Tempe's NW Neighborhoods. City of Tempe Transportation Center, Tempe, AZ, May 17,18,19, 2022.

Lopez, Oscar, Darren Ruddell, Michael Kuby, Scott Kelley, Rhian Stotts, Aimee Krafft, Joel Rinebold. Collaborative Mapping Workshop for Hydrogen Stations in the Hartford, CT Region. Connecticut Center for Advanced Technology, East Hartford, CT, October 7, 2019.

Kuby, Michael, William Sheaffer, Keiron Bailey, Fangwu Wei, John Fowler, Qing Zhong, Oscar Lopez, and Daoqin Tong. Geodesign for Planning a Regional Network of Alternative Fuel Stations, Transportation Research Board, Washington, DC, January 7, 2018.

Kuby, Michael, William Sheaffer, Keiron Bailey, Fangwu Wei, John Fowler, Qing Zhong, Oscar Lopez, and Daoqin Tong. COLLABLOCATION: A Collaborative Online Laboratory for Location Planning for CNG Truck Stops in the US Southwest. Scottsdale, AZ, June 16, 2017.

Kuby, Michael and Aaron Golub. 2014. Regional Bicycle Network Summit, Tempe Transportation Center, Tempe AZ, April 30, 2014.

Kuby, Michael. 2011. Human Geography in Action. National Council for Geographic Education, Portland, OR Aug. 5, 2011.

Kuby, Michael and John Harner. 2010. Human Geography in Action. Association of American Geographers Annual Meeting, Washington, D.C., April 17, 2010.

Kuby, Michael and John Harner. 2009. WileyPlus and Human Geography in Action: Interactive Learning with Less Grading. Association of American Geographers Annual Meeting, Las Vegas, March 23, 2009.

#### **Workshop Presentations**

Kuby, Michael and Scott Kelley. Path-Based Station Location Modeling at Multiple Geographic Scales, ASU-SRP Partnership Meeting on Transportation Electrification: Enhancing Sustainable Transportation in Arizona, December 10, 2020.

Lopez Jaramillo, Oscar, Scott Kelley, Aimee Krafft, Michael Kuby, Rhian Stotts. How Hydrogen Early Adopters in California Geographically Evaluate a Network of Refueling Stations Before Purchase and After Driving Experience, ASU-SRP Partnership Meeting on Transportation Electrification: Enhancing Sustainable Transportation in Arizona, December 10, 2020.

Stotts, Rhian, Oscar Lopez Jaramillo, Michael Kuby, Scott Kelley, Aimee Krafft. How Drivers Decide Whether to Get a Fuel Cell Vehicle: An Ethnographic Decision Model, ASU-SRP Partnership Meeting on Transportation Electrification: Enhancing Sustainable Transportation in Arizona, December 10, 2020.

#### **Panel Participation**

Kuby, Michael. 2022. Trends in Electric Vehicles and Infrastructure. NSF Industry/University Cooperative Research Center (IUCRC) for Efficient Vehicles and Sustainable Transportation Systems, Spring 2022 Industry Advisory Board Meeting, Tempe, AZ, May 24, 2022.

Kuby, Michael. 2019. Prospects of Integrating Spatial and Social Network Analyses. Association of American Geographers Annual Meeting, Washington, D.C., April 5, 2019.

Kuby, Michael (with Scott Bernstein). 2015. Arizona's Future Transportation Needs, Valley of the Sun Clean Cities Coalition, Scottsdale, AZ, September 25, 2015.

Kuby, Michael. 2014. Geographic Contributions to the Third National Climate Assessment. Association of American Geographers Annual Meeting, Tampa, FL, April 9, 2014.

Kuby, Michael. 2012. Are High Gas Prices Here to Stay? Case Critical seminar, Global Institute of Sustainability, Arizona State University, April 13, 2012.

Kuby, Michael. 2010. Author Meets Critics: Richard Gilbert and Anthony Perl, 'Transport Revolutions' (sponsored by China, Energy and Environment, and Transport Specialty Groups). Association of American Geographers Annual Meeting, Washington, D.C., April 14, 2010.

Kuby, Michael. 2009. Making Sustainable Transportation Work. Association of American Geographers Annual Meeting, Las Vegas, March 23, 2009.

Kuby, Michael. 2006. Identifying Emerging Research Trends and New Directions in the Subdiscipline. Transportation Geography Specialty Group, Association of American Geographers Annual Meeting, Chicago, March 11, 2006.

Kuby, Michael. 2006. From Energy Past to Energy Future: Renewables and Alternatives. Energy and Environment Specialty Group, Association of American Geographers Annual Meeting, Chicago, March 9, 2006.

Kuby, Michael. 1997. Review of *Geography of Transportation*, 2nd edition, Association of American Geographers Annual Meeting, Fort Worth, April 1997.

Kuby, Michael. 1996. Developing Active Learning Modules on the Human Dimensions of Global Change. Association of American Geographers Annual Meeting, Charlotte, April 1996.

Kuby, Michael. 1996. Are We Missing the Plane, Train, Bus, or Boat? Opportunities in Applied Transportation Geography. Association of American Geographers Annual Meeting, Charlotte, April 1996.

#### **Podcasts**

Fueling a new Transportation Economy with Mike Kuby, Climate Changers, October 22, 2019: <a href="https://podcast.app/fueling-a-new-transportation-economy-with-mike-kuby-e75085771/">https://podcast.app/fueling-a-new-transportation-economy-with-mike-kuby-e75085771/</a>.

### **Conference Presentations (last 5 years only)**

Michael Kuby, Nathan Parker, Jingteng Liu, and Ellen Stechel. Extreme Heat Effects on EV Energy Utilization, Driving Range, and Total Grid Load. Intelligent Transportation Society of America, Phoenix, AZ, April 2024.

Michael Kuby, Nathan Parker, Jingteng Liu, and Ellen Stechel. Extreme Heat Effects on EV Energy Utilization, Driving Range, and Total Grid Load. Association of American Geographers, Honolulu, HI, April 2024.

Hung-Chi Liu, Daoqin Tong, and Michael Kuby. A New Spatial Network Optimization Model for Locating Bike-sharing Stations. Transportation Research Board (24-00584), Washington, D.C., January 10, 2024.

Wangshu Mu, Fangwu Wei, Sri Kandala, Jon Miller, Daoqin Tong, and Michael Kuby. The Voting Precinct Design Problem. International Symposium on Locational Decision XVI. Kaiserslautern, Germany, June 26, 2023.

Michael Kuby, Cordova-Cruzatty, Andrea C., David A. King, and Nathan Parker. Barriers to Installing Electric Vehicle Charging Infrastructure in Existing Multifamily Housing Complexes. Association of American Geographers, Denver, CO, March, 2023.

Drew Taplin, Michael Kuby, Deborah Salon, and David King. Analysis of Ultra Low-Cost Carriers and Airport Choice. Association of American Geographers, Denver, CO (virtual), Feb. 26, 2022.

Analysis of Ultra Low-Cost Carriers and Airport Choice. Drew Taplin, Michael Kuby, Deborah Salon, and David King. Transportation Research Board, Airport Cooperative Research Program, Washington, DC, Jan. 11, 2022.

Kelley, Scott, Samir Gulati, Joseph Hiatt, and Michael Kuby. Close to Home, On the Way, But Not on My List: An Assessment of Hydrogen Stations Overlooked by Drivers in an Early Network. Refereed conference presentation at Transportation Research Board (TRBAM-22-02032), Washington, D.C., January 12, 2022.

Michael Kuby, Fangwu Wei, Oscar Lopez Jaramillo, Keiron Bailey, John Fowler, Daoqin Tong, Scott Kelley, Darren Ruddell, Rhian Stotts, Daoqin Tong, and Qing Zhong. Collaborative "Geodesign" for

Alternative Fuel Station Location Using Open-Source COLLABLOCATION Software. International Symposium on Locational Decision XV. Wuppertal, Germany (virtual), July 5-9, 2021.

Kelley, Scott, Aimee Krafft, Michael Kuby, Oscar Lopez Jaramillo, Rhian Stotts, and Jingteng Liu. 2020. How Early Hydrogen Fuel Cell Vehicle Adopters Geographically Evaluate a Network of Refueling Stations in California. Refereed conference presentation at Transportation Research Board (TRBAM-21-01757), Washington, D.C., January 2021.

Stotts, Rhian, Oscar G. Lopez Jaramillo, Scott Kelley, Aimee Krafft, and Michael Kuby. 2021. How Drivers Decide Whether to Get a Fuel Cell Vehicle: An Ethnographic Decision Model. Transportation Research Board refereed conference presentation (TRBAM-21-02998), Washington, DC, January, 2021.

Krafft, Aimee, Scott Kelley, Oscar Lopez Jaramillo, Rhian Stotts, Michael Kuby. Hydrogen Refueling Station Consideration in California: How Driving Experience Matters. Refereed conference presentation at Transportation Research Board (AM-20-04476), Washington, DC, January, 2020.

Yudai Honma and Michael Kuby. 2019. New Node-based and Path-based Location Models for Urban Alternative-fuel Stations: Comparing Convenience and Coverage Abilities. Association of American Geographers, Washington, DC, April 3, 2019.

Oscar Lopez, Michael Kuby, Rhian Stotts, and Scott Kelley. 2019. An Ethnographic Decision Tree Model for Predicting Hydrogen Fuel Cell Vehicle Ownership. Association of American Geographers, Washington, DC, April 3, 2019.

Michael Kuby and Yudai Honma. 2019. Node-Based Versus Path-Based Location Models for Urban Hydrogen Refueling Stations: Comparing Convenience and Coverage Abilities. Refereed conference presentation at Transportation Research Board, Washington, DC, January 15, 2019.

Oscar Lopez, Rhian Stotts, Scott Kelley, and Michael Kuby. 2019. Content Analysis of Interviews with Hydrogen Fuel Cell Drivers in Los Angeles. Refereed conference presentation at Transportation Research Board, Washington, DC, January 14, 2019.

Michael J. Kuby, Fangwu Wei, Keiron Bailey, Daoqin Tong, John W. Fowler, Qing Zhong, Oscar Lopez. 2018. Collaborative "Geodesign" for Alternative Fuel Station Location using Open-source Collaboration Software. INFORMS, Phoenix, AZ, November 6, 2018.

Yudai Honma and Michael Kuby. 2018. New Node-based and Path-based Location Models for Urban Alternative-fuel Stations: Comparing Their Convenience and Coverage Abilities. INFORMS, Phoenix, AZ, November 6, 2018.

Qing Zhong, Daoqin Tong, Michael Kuby, Fangwu Wei, John W. Fowler, and Keiron Bailey. 2018. Locating Alternative-fuel Stations for Maximizing AADT Coverage and Ensuring Sufficient Spacing: A Case Study of CNG Truck Fueling. INFORMS, Phoenix, AZ, November 6, 2018.

Wencong Cui and Michael Kuby. 2018. Study on the Effects of Building Density on the Efficiency of Dockless Bike Sharing System - A Case Study of Beijing, China. 12th International Association of China Planning Conference, Xi'an, China, June 30, 2018.

Wencong Cui and Michael Kuby. 2018. Study on the Effects of Building Density on the Efficiency of Dockless Bike Sharing System - A Case Study of Beijing, China. Association of American Geographers Annual Meeting, New Orleans, LA April 11, 2018.

Michael Kuby, Fangwu Wei, Daoqin Tong, Qing Zhong, John Fowler, Oscar Lopez. 2018. An Open-Source Geodesign Platform for Multi-Facility Planning with Application to Alternative-Fuel Stations. Association of American Geographers Annual Meeting, New Orleans, LA April 10, 2018.

Keiron Bailey, Qing Zhong, Michael Kuby, Daoqin Tong, John Fowler, Oscar Lopez, William Sheaffer. 2018. Collaborative Geodesign for Alternative Fuel Station Locations in the US Southwest using COLLABLOCATION. Refereed conference presentation at Transportation Research Board, Washington DC, January 9, 2018.

Shuyao Hong and Michael Kuby. 2017. An Arc Cover/Path Cover/Zone Cover Model for Building a Critical Mass of Alternative-Fuel Stations. International Symposium on Locational Decisions (ISOLDE) XIV, Toronto, Canada, July 14, 2017.

Insu Hong, Michael Kuby, Alan Murray. 2017. Drone Delivery Refueling Service Modeling with Recharging Station. International Symposium on Locational Decisions (ISOLDE) XIV, Toronto, Canada, July 10, 2017.

Qing Zhong, Alex Karner, Aaron Golub, Michael Kuby. 2017. A multiobjective optimization model for locating affordable housing investments while maximizing accessibility to jobs by public transportation. Refereed conference presentation at Transportation Research Board, Washington DC, January 9, 2017.

Insu Hong, Michael Kuby, and Alan T. Murray. 2017. The Drone Delivery Refueling Location Problem. Refereed conference presentation at Transportation Research Board, Washington DC, January 10, 2017.

Salon, Deborah, Kihwan Seo, Fraser Shilling, and Michael Kuby. 2017. Pavement Condition and Residential Property Values: A Spatial Hedonic Price Model for Solano County, CA. Refereed conference presentation at Transportation Research Board, Washington DC, January 10, 2017.

## **TEACHING**

#### **COURSES TAUGHT**

## **Arizona State University**

GCU 102	Introduction to Human Geography
GCU 350	Geography of World Crises (Regular and Honors)
GCU 432	Geography of China
GCU 495	Quantitative Methods in Geography
GCU 442/542	Geographical Analysis of Transportation
GCU 496	Introduction to Geographical Research Methods
GCU 585	Geographic Research Design and Proposal Writing
GCU 591	Light Rail and Climate Seminar
GCU 591	Hydrogen Energy Seminar
GCU 591	Optimization Models for Facility Location and Transportation
GIS 462 /562	Location Analysis and Modeling
PUP 591	Transportation Certificate Pro-Seminar
PUP 593	Transportation Certificate Capstone Seminar

#### **Boston University**

GG 201	World Regional Geography
GG 103	Introduction to Economic Geography
GG 331	Political Geography

### GRADUATE STUDENT MENTORING

#### Chaired (completed)

Oscar Lopez, PhD, Geography, 2023

Hejun Quan, MA, Geography, 2022 (Co-Chair with Amy Frazier)

Drew Taplin, MUEP, 2021

Wencong Cui, MUEP, 2018

Rebecca Santiago, MUEP, 2017

Kihwan Seo, PhD, Geography, 2016

Scott Kelley, PhD, Geography, 2015

Mawdhah Al-Hashemi, MUEP, 2015

Shuyao Hong, MA, Geography, 2015

Qing Zhong, MAS-GIS, 2015

Lawrence Joseph, PhD, Geography, 2013

Michael Palmer, MA, Geography, 2013

Jong-Geun Kim, PhD, Geography, 2010

Jason Kelley, MA, Geography, 2008

Carol Atkinson-Palombo, PhD, Geography, 2007 (Co-Chair with Patricia Gober)

Seow Lim, PhD, Geography, 2007

Alice Chen, MA, Geography, 2007

Tyler Roberts, MA, Geography, 2006

Kedi Wang MA, Chair, Geography, 2005

Christopher Upchurch, MA, Geography, 2005

Sean Tierney, MA, Geography, 2004

Sommer, Curtis MA, Geography, 2000

Gayle Wilkinson, MA, Geography, 1997

Max M. Wyman, PhD, Geography, 1994

Robert G. Gray, MA, Geography, 1990

## **Chairing (in progress)**

Shuyao Hong, PhD, Geography

#### **Committee Member (completed)**

Junzhou Lu, MA, Geography, 2022

Noah Schuemerth, MUEP, 2022

Feiyi Wu, MA, Geography, 2020

Eddie Helderop, PhD, Geography, 2019

Yang Song, PhD, Life Sciences, 2018

Andrew McIntyre, MUEP, 2016

Andrew Fraser, PhD, Sustainable Engineering and the Built Environment, 2016

Insu Hong, PhD, Geography, 2015

Liyuan Liu, MUEP, 2014

Jing Yao, PhD, Geography, 2012

Karthik Konduri, Ph D, Sustainable Engineering and the Built Environment, 2012

Angelika Kizior, MUEP, 2012

Der-Shiuan Lee, PhD, Geography, 2011

Atsushi Nara, PhD, Geography, 2011

Paul Padegimas, MA, Geography, 2011

Daniel Christen, MUEP, 2011

Nayoung Ryu, MA, Geography, 2009

Scott Kelley, MA, Geography, 2008 Timothy Leslie, PhD, Geography, 2007 Elizabeth Troncone, MA, Geography, 2006 Cem Vardar, PhD, Industrial Engineering, 2006 Camden Herzfeld, MA, Geography, 2006

Jodie Brown, MEP, Environmental Planning, 2001 Canfei He, PhD, Geography, 2001

Sheila Conway, MA, Geography, 2000 Paul E Kaizar, MA, Geography, 1997 Eric Matranga, MA, Geography, 1996 Richard Matthews, PhD, Geography, 1995 Michael McGlade, PhD, Geography, 1994 Dawn Hawley, PhD, Geography, 1994 Richard Matthews, MA, Geography, 1992 Mushtagur Rahman, PhD, Civil Engineering, 1991

Neil Reid, PhD, Geography, 1991 William Menucci, MA, Geography, 1991

Mary McPherson, PhD, Geography, 1989

## **Committee Member (in progress)**

Deepti Paul, Phd, Sustainability Xiangyong Luo, PhD, Civil Engineering

## TRANSPORTATION CERTIFICATE CAPSTONE PROJECTS (Mentored and Completed)

Drew Taplin, 2021 Ramon Aranki, 2015 Keith Morphis, 2020 James Gardner, 2014 Yueling Li, 2020 Livuan Liu, 2014 Oscar Lopez, 2020 Mike Samples, 2014 Ann-Jillian Reyes, 2018 Wes Pittman, 2013 Jonathan Davis, 2018 Natalia Ramirez, 2013 Jinwen Xu, 2017 Hannah Ritchie, 2012 Rebecca Santiago, 2016 Melissa McLaughlin, 2012 Jianyi Li, 2016 Kristen Lawton, 2012 Lyle Begiebing, 2015 Matt Detamore, 2012 Shuyao Hong, 2015 Patrick Montgomery, 2012 Mengyao Cheng, 2015 Cavan Noone, 2012

Ray Banker, 2012

#### UNDERGRADUATE MENTORING

Trevor Malzewski, Honors Thesis, first reader, 2024 Nicholas Lewin, Honors Thesis, first reader, 2023 Jingteng Liu, Honors Thesis, first reader, 2022 Mitchell Jones, Honors Thesis, first reader, 2015 Sean Kenyon, Honors Thesis, second reader, 2015 Emily Rosen, Honors Thesis, second reader, 2013 Benjamin Sanchez, Honors Thesis, first reader, 2013 Nicole Saidi, Honors Thesis, first reader, May, 2005 Jess Welsh, Honors Thesis, third reader, 1998 Lucinda Wold, Honors Thesis, third reader, 1993 Huang Huynh, One-to-One Mentoring Program, ASU, 1993-1994

## **SERVICE**

## **Professional Service (National and International)**

Reviewer, *Hydrogen Station Network Self-Sufficiency Analysis per Assembly Bill 8*, California Air Resources Board, December 2020.

5-Year Program Review, Institute for Transportation Studies, University of California, Davis, 2015.

Managing Guest Editor, *Energy Policy*, Special Issue on Natural Gas Transportation, 2016-2018 (with Amy Jaffe).

Guest Editor, *Transportation Research Part C – Emerging Technologies*, Special Issue on Alternative Fuel Systems, 2015-16 (with Yongxi Huang and Joseph Chow)

Lead Author, Transportation Chapter, 2014 Report, National Climate Assessment (NCA), US Global Change Research Program, 2011-2013.

Location Science Area Editor, Networks and Spatial Economics, January 2007-2017.

Member, Editorial Board, International Regional Science Review, 2010-present.

Member, Editorial Board, Journal of Transport Geography, 1998-present.

Guest Editor, Journal of Transport Geography, Special Section on Alternative Fuels, 2010.

Guest Editor, *Networks and Spatial Economics*, Special Issue on Location, 2010 (with Richard Church)

North American Book Review Editor, Journal of Transport Geography, 2006-2015.

Member, Sustainable Transport in Europe with Linkages and Liaisons to America (STELLA), 2002-2004.

Member, Sustainable Transport Analysis and Research (STAR) Network, 2000-2004.

Chair and Newsletter Editor, Transportation Geography Specialty Group, Association of American Geographers, 1998-2000.

Secretary/Treasurer, Transportation Geography Specialty Group, Association of American Geographers, 1995-1997.

Member, Editorial Board, The Professional Geographer, 1994-1997.

Member, Local Arrangements Committee, ORSA/TIMS Joint National Meeting, Phoenix, Fall, 1993.

Member, National Energy Modeling System (NEMS) Review Panel, U.S. Dept. of Energy, February 1-2, 1993.

Board of Directors, Transportation Geography Specialty Group, Association of American Geographers, 1992-1995.

## **Professional Service (Session Organizer)**

Organizer and Chair, Special Sessions on "Alternative Fuels, Vehicles, and Infrastructure I and II," Transportation Geography and Energy and Environment Specialty Groups, Association of American Geographers, 2016 Annual Meetings, San Francisco, CA.

Organizer and Chair, Special Session on "Alternative Fuels, Stations, and Vehicles, I and II," INFORMS, 2012 Annual Meetings, Phoenix, AZ.

Organizer and Chair, Special Session on "Alternative Fuels and Vehicles," Transportation Geography and Energy and Environment Specialty Groups, Association of American Geographers, 2009 Annual Meetings, Las Vegas, NV.

Organizer and Chair, Special Sessions on "Alternative Fuels I and II," Transportation Geography and Energy and Environment Specialty Groups, Association of American Geographers, 2008 Annual Meetings, Boston, MA.

Organizer and Chair, Special Sessions on "Alternative Fuels I and II," Transportation Geography and Energy and Environment Specialty Groups, Association of American Geographers, 2007 Annual Meetings, San Francisco, CA.

Organizer and Chair, Special Session on "The Hydrogen Economy," Transportation Geography and Energy and Environment Specialty Groups, Association of American Geographers, 2005 Annual Meetings, Denver, CO.

Organizer and Chair, Special Session on "Urban Transportation," Transportation Geography Specialty Group, Association of American Geographers, 2003 Annual Meetings, New Orleans.

Organizer and Chair, Special Sessions on "Transportation Research by Student Travel Award Winners, I and II." Transportation Geography Specialty Group, Association of American Geographers, 1999 Annual Meetings, Honolulu, HI.

Organizer and Chair, Special Session on "Transportation Geography and the Bureau of Transportation Statistics." Transportation Geography Specialty Group, Association of American Geographers, 1997 Annual Meetings, Fort Worth, TX.

Organizer and Chair, Special Session on "Operations Research Models for Transportation and Location Problems." Transportation Geography Specialty Group, Association of American Geographers, 1996 Annual Meetings, Charlotte, NC.

#### **Professional Service (Proposal Reviewer)**

Canada Council for the Arts

Croatian Science Foundation

Killam Fulbright Program, Canada

National Science Foundation

National Oceanic and Atmospheric Administration

Natural Science and Engineering Council of Canada

National Center for Sustainable Transportation University Transportation Center, Portland State University

Prometeo, Ecuador

Region 9 University of California at Berkeley, University Transportation Center Transportation Research Center for Livable Communities, University Transportation Center UCLA, University Transportation Center University of California at Davis, Institute for Transportation Studies

# **Professional Service (External PhD Dissertation Reviewer)**

University of Alberta, Department of Geography (2007) McMaster University, Department of Geography (2006)

## **Professional Service (Journal Reviewer)**

Annals of the American Association of

Geographers

Annals of Operations Research Annals of Regional Science Cartography and GIS

Cities

Computers, Environment, and Urban Systems

Computers and Operations Research

Ecological Economics Economic Geography

Energy Policy Engineering

Environmental Management Environment and Planning

Environmental Modeling and Assessment European Journal of Operational Research

European Journal of Transport and Infrastructure Research

GeoBulletin

Geografiska Annaler Geographical Analysis Growth and Change

IEEE Transactions on Power Systems

INFOR-The Canadian Journal of Operational Research and Information Processing

International Journal of Geographical

Information Science

International Journal of Global Energy Issues International Journal of Hydrogen Energy

International Regional Science Review International Transactions in Operations

Research

Journal of Environmental Management Journal of Geography in Higher Education Journal of Rail Transport Planning and

Management

Journal of Regional Science Journal of Transport Geography

Journal of Transportation and Land Use

Landscape and Urban Planning

Letters in Spatial and Resource Sciences

Location Science Management Science

Military Operations Research Naval Research Logistics

Networks

Networks and Spatial Economics

Operations Research Papers in Regional Science

PLOS-One

Professional Geographer

*Proceedings of the Royal Society B* –

Biological Sciences O Science Connect

Research in Transport Economics Socioeconomic Planning Sciences

Southeastern Geographer

Sustainability

Sustainable Energy Technologies and

Assessments Tourism Geographies

**Transportation** 

Transportation Research Parts A,B,C,D,E,F

Transportation Research Record

Transportation Science Transport Reviews Urban Geography

Water Resources Research

#### **Professional Service (Local and State)**

Member, Arizona Interstate/Infrastructure Collaborative (AIIC) Advisor Group for I-10 Alternative Fuels Corridor Deployment Plan (May, 2020)

Member, Arizona Department of Transportation, Freight Advisory Board (August, 2015 – 2016)

Member, ASU Wireless Streetcar Study Group, City of Tempe (January-May, 2015).

Participant, Valley of the Sun Clean Cities Coalition (2010-present)

Member, Electric Vehicles Arizona (EVAZ) Stakeholder Group, Arizona Smart Power (2012-2018).

Emcee, State Geography Bee Finals, National Geographic Society (April 2009).

Judge and Question Coordinator, Tempe Geography Bee (2009-2015).

Co-author/co-editor, Background Report on Transportation, Arizona Town Hall (April 2009, April 2015).

Coordinator, High School Exchange Program with Zhenjiang China, Tempe Sister Cities (Feb., 2007-2010)

Judge, State Geography Bee (1992, 2003)

Lecturer, Phoenix area schools, Kiwanis Club, National Geography Week, Arizona Geographic Alliance, Consortium for Teaching on Asia, Sierra Club, East Valley Democrats, Clean Cities Coalition, Valley Leadership (1988-present)

#### **University Service**

Judge, Poster Competition, Institute for Social Science Research, (2021)

Co-Chair, Transport Electrification Committee, ASU-Salt River Project Strategic Partnership, with Ram Pendyala (SSEBE) and Catherine O'Brien (SRP) (2019-2024)

Co-Lead, ASU Transportation Campaign, ASU Knowledge Enterprise (formerly KED) (2017-2020)

Member, Advisory Board, Bicycle Coalition at ASU (2014-2015)

Member, Search Committee, Transportation Position, School of Sustainable Engineering and the Built Environment (2012-2013)

Director, Transdisciplinary Transportation Studies Graduate Certificate Program (2010-2023)

Member, NACTS University Advisory Council (2010-2012)

Member, Executive Committee, Center for Asian Research (2006-2010)

Co-organizer, ASU Light Rail Interest Group (2003-2004)

Committee on National Scholarship Advisement (2000-2002)

Chair, Global Awareness Subcommittee, General Studies Committee (2001-2002)

Member, Global Awareness Subcommittee, General Studies Committee (2000-2001)

Member, Steering Committee, Interdisciplinary Graduate Certificate Program in Transportation Systems (1997-2024)

Lecturer, Honors College Recruiting Day (1994)

Facilitator, One-to-One Minority Counseling Program (1991-1995)

Faculty Advisor, Men's and/or Women's Ultimate Frisbee Clubs (1991-2022)

## College Service

Faculty Senator, College of Liberal Arts and Sciences Senate (1992-1995, 2018-2019)

## **School/Department Service**

Member, Ad-hoc Committee on PhD Mode of Instruction (2021)

Member, Community Committee (2022)

Member, Colloquium Committee (1989-90)

Member, Executive Committee (1999-2000, 2003-06, 2015-16)

Friends for Geography, Treasurer (1996-2002), Interim Chair (Spring, 1999)

Chair, Gamma Theta Upsilon, International Geographic Honor Society (2006-2017)

Member, Graduate Committee (1997-98)

Chair, Graduate Committee (1998-99)

Member, Graduate Program/Policy Committee (1999-2000)

Chair, Graduate Program/Policy Committee (2006-07, 2010-14)

Member, Graduate Recruiting and Admissions Committee (2004-05)

Chair, Human Geography Course Cluster (1999-2010)

Member, Land Use Systems Committee (1988-1993)

Member, MA Committee (1988-1990)

Member, MA Curriculum Committee (1989-90)

Member, Personnel Committee (1991-93, 1996-98, 2001-02, 2004-06, 2017-19, 2020-present)

Member, Ph.D Committee (1994-95)

Member, Research Advancement Committee (2020-2021)

Mentor, Presidential Post-doc Scholars Program, (2022)

Member, Scholarship Committee (1999-2001)

Member, Search Committee (1988-89, 1996-97, 2001-02, 2013-14, 2015-16, 2019-20)

Chair, Search Committee, Borderlands position (2003-04)

Member, Self-Study Committee (2003-04)

Member, Undergraduate Committee (2000-02, 2008-09, 2020-2021)