Mo Zhou, Ph. D. (mozhou@purdue.edu)

Google Scholar Link:

https://scholar.google.com/citations?user=96-rL_4AAAAJ&hl=en&oi=ao

EDUCATION

2001 – 2005 **Ph.D., Forest Economics & Management**, University of Wisconsin-Madison
1998 – 2001 **M.S., Forestry**, Technical University of Munich (TUM), Germany
1994 – 1998 **B.S., MIS in Forestry**, Beijing Forestry University (BJFU), China

ACADEMIC EMPLOYMENT

2018 – present Assistant Professor of Forest Economics and Management, Purdue University
2011 – 2018.1Assistant Professor of Forest Economics, West Virginia University*
2008 – 2011 Assistant Professor of Economics, School of Management, University of Alaska
2005 – 2007 Research Associate, Dept. of Forest Ecology and Management, UW-Madison
2001 – 2005 Research Assistant, Dept. of Forest Ecology and Management, UW-Madison
1998 – 2000 Research Assistant, Faculty of Forest Sciences, TUM
* Tenure clock extended due to childbirth

SELECTED PROFESSIONAL SERVICES

2016 – present	Lead Economist, Steering Committee Member of the Global Biodiversity Initiative (GFBI)
2015 – present	Associate Editor of *Canadian Journal of Forest Research*, 2015 – present
2014 – 2015	Lead Guest Editor of *Forest Ecosystems* Special Issue – Uncertainty and Risk Analysis in Forest Ecosystem Dynamics 2014 – 2015

SELECTED AWARDS AND HONORS

2013 International Scholar Recognition Award, West Virginia University
2009 Certificate of Appreciation for Faculty, University of Alaska Fairbanks
2006 Graduate School Research Committee Award, University of Wisconsin-Madison
2005 John N. McGovern Family Scholarship, University of Wisconsin-Madison
2004 Best student presentation at Midwest Forest Economists and Mensurationists Conference

PEER REVIEWED JOURNAL ARTICLES (N=36, * as Corresponding author, mentee underlined)

1. Zhou, M.* Input substitution and relative input price variability in timber markets. *Canadian Journal of Forest Research (50th Anniversary Special Issue)*. (Accepted, IF = 1.887, SJR Forestry: Q1)
   ★SINGLE-AUTHORED PAPER.

2. Wang, Y., Ma, W., Farlee, L., Jackson, L., Shao, G., Ochuodho, T., Liang, J. and Zhou, M.* A spatiotemporal analysis on the economic benefits of hardwood management in Indiana. *Forest Science*. (Accepted, IF = 1.559, SJR Forestry: Q2)
3. Brancalion, P., Broadbent, E.N., de-Miguel, S., Cardil, A., Rosa, M.R., Almeida, C.T., Almeida, D. R. A., Chakravarty, S., Zhou, M., Gamarra, J. G. P., Liang, J., Crouzeilles, R., Hérault, B, Aragão, L.E.O.C., Alberto C. A., Almeyda-Zambrano, A.M. Emerging threats linking tropical deforestation and the COVID-19 pandemic. *Perspectives in Ecology and Conservation*. (Accepted, IF = 3.563, SJR Ecology: Q1)
4. Cardil, A., de-Miguel, S., Silva, C., Reich, P., Calkin, D., Brancalion, P., Vibrans, A., Gamarra J., Zhou, M., Pijanowski, B., Hui, C., Crowther, T., Hérault, B., Piotto, D., Salas-Eljatib, C., Broadbent, E., Zambrano, A., Picard, N., Aragão, L., Bastin, J., Routh, D., van den Hoogen, J., Tymus, J., Peri, P. and Liang, J. Recent deforestation drove the 2019 spike in Amazonian fires. *Science of the Total Environment*. (Accepted, IF = 6.192, SJR Environmental Science: Q1)
5. Buongiorno, J. and Zhou, M.*, 2020. Consequences of discount rate selection for financial and ecological expectation and risk in forest management. *Journal of Forest Economics* 35: 1 - 17 (CiteScore = 1.91, SJR Forestry: Q1)
6. Zhang, X., Haviarova, E. and Zhou, M.*, 2020. A welfare analysis of China's tariffs on US hardwood products. *Forest Policy and Economics*, 113, p.102085. (IF = 3.099, SJR Economics and Econometrics: Q1)
7. Zhou, M.* and Buongiorno, J., 2019. Optimal forest management under financial risk aversion with discounted Markov Decision Process models. *Canadian Journal of Forest Research* 49(7), pp.802-809. (IF = 1.887, SJR Forestry: Q1)
8. Ma, W., Zhou, X., Liang, J. and Zhou, M.*, 2019. Coastal Alaska forests under climate change: What to expect? *Forest Ecology and Management*, 448, pp.432-444. (IF = 3.126, SJR Forestry: Q1)
9. Steidinger, B.S., Crowther, T.W., Liang, J., Van Nuland, M.E., Werner, G.D., Reich, P.B., Nabuurs, G.J., de-Miguel, S., Zhou, M., Picard, N. and Herault, B. and GFBI. 2019. Climatic controls of decomposition drive the global biogeography of forest-tree symbioses. *Nature*, 569(7756), pp.404-408. (IF = 43.07, , SJR Multidisciplinary: Q1)
   📷 **FEATURED ON NATURE COVER ON MAY 19, 2019.**
10. Gatti, R., Liang, J., Velichevskaya, A. and Zhou, M., 2019. Sustainable palm oil may not be so sustainable. *Science of the Total Environment* 652: 48 – 51. (IF = 5.589, SJR Environmental Chemistry: Q1)
11. Ma, W. and Zhou, M.*, 2018. Assessments of management impacts on central hardwood forests under climate and fire uncertainty. *Forest Science* 64(1): 57 – 73. (IF = 1.559, SJR Forestry: Q2)
12. Zhou, M.*, 2017. Valuing environmental amenities through inverse optimization: Theory and case study. *Journal of Environmental Economics and Management* 83: 217 – 230. (IF = 4.175, SJR Economics and Econometrics: Q1)
    ★SINGLE-AUTHORED PAPER. Journal in 93th percentile (40 of 592) of all journals in economics and econometrics.
13. Buongiorno, J. and Zhou, M.*, 2017. Multicriteria forest decision making under risk with goal-programming Markov Decision Process models. *Forest Science*, 63(5), pp.474-484. (IF = 1.559, SJR Forestry: Q2)
14. Buongiorno, J., Zhou, M. and Johnston, C., 2017. "Risk aversion and risk seeking in multi-criteria forest management: A MDP approach". *Canadian Journal of Forest Research* 47: 800 – 807. (IF = 1.887, SJR Forestry: Q1)
15. Dahle, G., Carpenter, A., DeVallance, D. and Zhou, M., 2017. Does modulus of elasticity vary due to dormancy and temperature? *Arboriculture & Urban Forestry*, 43(2): 49 – 54. (RG Journal Impact = 0.61, SJR Forestry: Q3)

16. Liang, J., Crowther, T., Picard, N., Wiser, S. and Zhou, M., et al.ǂ2016. "Positive biodiversity–productivity relationship predominant in global forests". *Science* 354, Issue 6309. DOI: 10.1126/science.aaf8957. ǂ 89 authors in total. (IF = 41.063, SJR Multidisciplinary: Q1)
17. Barrett, C. B., Zhou, M**.**, Reich, P., Crowther, T. and Liang, J., 2016. Forest value: More than commercial—Response. *Science* 354:1541-1542. (IF = 41.063, SJR Multidisciplinary: Q1)
18. Ma, W., Liang, J., Cumming, J., Lee, E., Welsh, A., Watson, J. and Zhou, M.*, 2016. Fundamental shifts of central hardwood forests under climate change. *Ecological Modelling* 332: 28-41. (IF = 2.363, SJR Environmental Science: Q2)
19. Liang, J., Watson, J., Zhou, M. and Lei, X., 2016. Effects of productivity on biodiversity in forest ecosystems across the United States and China. *Conservation Biology* 30(2), 308-317. (IF = 4.842, SJR Ecology: Q1)
20. Zhou, M.* 2015. Adapting forest management to climate policy uncertainty: A conceptual framework. *Forest Policy and Economics* 59, 66-74. (IF = 3.099, SJR Economics and Econometrics: Q1)
    ★SINGLE-AUTHORED PAPER. Journal in 92th percentile (85 of 1108) of all journals in sociology and political science.
21. Liang, J., Zhou, M., Tobin, P., Reich, P. and McGuire, A., 2015. Biodiversity influences plant productivity through Niche-Efficiency. *Proceedings of National Academy of Science* 112(18): 5738-5743. (IF = 9.58, SJR Multidisciplinary: Q1)
22. Buongiorno, J. and Zhou, M., 2015. Adaptive economics and ecological forest management under risk. *Forest Ecosystems* 2:4 doi:10.1186/s40663-015-0030-y (IF = 2.426, SJR Forestry: Q1)
23. Lee, E., He, Y., Zhou, M**.** and Liang. J., 2015. Potential causal effects of recent vegetation changes on summer rainfall in the Sahel. *Physical Geography*. DOI: 10.1080/02723646.2015.1120139 (IF = 1.086, SJR Earth and Planetary Science: Q2)
24. Liang, J. and Zhou, M., 2014. Large-scale geospatial mapping of forest carbon dynamics. *Journal of Sustainable Forestry* 33:S 104-S122. (IF = 0.747, SJR Forestry: Q2)
25. Zhou, M.* and Buongiorno, J., 2011. Effects of stochastic interest rates in decision making under risk: A Markov Decision Process model for forest management. *Forest Policy and Economics* 13: 402-410. (IF = 3.099, SJR Economics and Econometrics: Q1)
26. Buongiorno, J. and Zhou, M., 2011. Further generalization of Faustmann's formula for stochastic interest rates. *Journal of Forest Economics* 17(3): 248-257. (CiteScore = 1.91, SJR Forestry: Q1)
27. Liang, J., Zhou, M**.**, Verbyla, D., Zhang, L., Springsteen, A. and Malone, T., 2011. Mapping forest dynamics under climate change: A matrix model. *Forest Ecology and Management* 262: 2250-2262. (IF = 3.126, SJR Forestry: Q1)
28. Liang, J. and Zhou, M. 2010. A geospatial model of forest dynamics with controlled trend surface. *Ecological Modelling* 221: 2339-2352. (IF = 2.363, SJR Environmental Science: Q2)
29. Zhou, M., Liang, J. and Buongiorno, J., 2008. Adaptive versus fixed policies for economic or ecological objectives in forest management. *Forest Ecology and Management* 254: 178-187. (IF = 3.126, SJR Forestry: Q1)
30. Zhou, M., Buongiorno, J. and Liang, J. 2008. Economic and ecological effects of diameter caps: A Markov Decision Model for Douglas-fir/western hemlock forests. *Forest Science* 54(4): 397-407. (IF = 1.559, SJR Forestry: Q2)
31. Liang, J, Buongiorno, J., Monserud, R., Kruger, E. and Zhou, M. 2007. Effects of diversity of tree species and size on forest basal area growth, recruitment, and mortality. *Forest Ecology and Management* 243: 116-127. (IF = 3.126, SJR Forestry: Q1)

32. Zhou, M. and Buongiorno, J., 2006. Space-time modeling of timber prices. *Journal of Agricultural and Resource Economics* 31(1): 40-56. (CiteScore = 1.28, SJR Agronomy and Crop Science: Q1)
33. Zhou, M. and Buongiorno, J., 2006. Forest landscape management in a stochastic environment, with an application to mixed Loblolly pine-hardwood forests. *Forest Ecology and Management* 223: 170 – 182. (IF = 3.126, SJR Forestry: Q1)
34. Rollin, F., Buongiorno, J., Zhou, M. and Peyron, J.-L., 2005. Management of mixed-species, uneven-aged forests in the French Jura: from stochastic growth and price models to decision tables. *Forest Science* 51(1): 64-75. (IF = 1.559, SJR Forestry: Q2)
35. Zhou, M. and Buongiorno, J., 2005. Price transmission between products at different stages of manufacturing in forest industries. *Journal of Forest Economics* 11(1): 5-19. (CiteScore = 1.91, SJR Forestry: Q1)
36. Zhou, M. and Buongiorno, J., 2004. Nonlinearity and noise interaction in a model of forest growth. *Ecological Modelling* 180: 291-304. (IF = 2.363, SJR Environmental Science: Q2)

BOOK AND BOOK CHAPTER (N=2)

37. Hand, M.S., Gebert, K.M., Liang, J., Calkin, D.E., Thompson, M.P., Zhou, M. 2014. The economics of wildfire management: Development and application of suppression cost models. Springer Briefs in Fire. 71p.
38. Zhou, M., Buongiorno, J. and Liang, J., 2012. Bootstrap simulation, Markov Decision Process models, and role of discounting in the valuation of ecological criteria in uneven-aged forest management. *Continuous Cover Forestry*. 2nd Ed. Springer. 296 p.

REFEREED PROCEEDINGS/REPORTS AND OTHERS (N = 10)

1. Buongiorno, J., Zhou, M. and Johnston, C., 2017. New advances in Markov Decision Process models for forest management: Multi-criteria and risk-sensitive decision making. Forest Economics, Management, and Policy in All Flavors: From Timber Investment and Wood Products to Payment for Ecosystem Services and Everything in Between. Proceedings of the 2017 Meeting of the International Society of Forest Resource Economics.
2. Zhou, M**.**, 2017. A Two-species model of stumpage markets and its implications. Forest Economics, Management, and Policy in All Flavors: From Timber Investment and Wood Products to Payment for Ecosystem Services and Everything in Between. Proceedings of the 2017 Meeting of the International Society of Forest Resource Economics.
3. Zhou, M., 2016. Nonmarket valuation through inverse optimization. Forest Economics and Policy in a Changing Environment: How Market, Policy, and Climate Transformations Affect Forests Proceedings of the 2017 Meeting of the International Society of Forest Resource Economics.
4. Zhou, M. and Liang, J., 2012. Modeling Alaska boreal forests with a controlled trend surface approach. Gen. Tech. Rep. SRS-157. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 299 p.
5. Zhou, M., and Liang, J., 2010. Modeling Alaska boreal forests with a controlled trend surface approach. 2010 Joint Meeting of the Forest Inventory and Analysis (FIA) Symposium and the Southern Mensurationists, McWilliams W & Roesch FA (eds): pp 25-39.

6. Liang, J. and Zhou, M., 2010. Dynamics and management of Alaska boreal forests. SciTopics.http://www.scitopics.com/Dynamics_and_Management_of_Alaska_Boreal_Forest.html
7. Buongiorno, J. and Zhou, M., 2005. The use of Markov optimization models in the economic and ecological management of forested landscapes under risk. Proceedings of the 3rd Iberian American Symposium on Forest Management and Economics and 11th Symposium on System Analysis in Forest Resources. Sep. 18 – 21, 2005. Luiz Carlos Estraviz Rodriguez. Série Técnica, 35(15): 47 – 57.
8. Zhou, M., 2005. Managing resources for multiple purposes: Markov models of southern mixed Loblolly pine-hardwood forests. Dissertation. University of Wisconsin-Madison. 126p.
9. Buongiorno, J. and Zhou, M., 2004. The use of Markov optimization models in the economic and ecological management of forest landscapes under risk. University of Wisconsin-Madison. Technical Series, (35).
10. Ince, P., Li, X., Zhou, M., Buongiorno, J., and Reuter, M., 2001. United States paper, paperboard, and market pulp capacity trends by process and location, 1970 – 2000. U.S. Forest Service Research Paper FPL-RP-602.

PRESENTATIONS AND TALKS

INVITED (N=8, 5 international)

2020 Risk analysis of Koa plantations. Hilo, HI, USA (Postponed due to COVID-19)
2019 Uncertainty in climate change. 2019 Africa Security Forum. Rabat, Morocco.
2018 Total costs of invasive species and tools for effective management. Indiana Invasive Species Council Quarterly Meeting. Indianapolis, IN, USA.
2018 Forest dynamics in coastal Alaska under climate change. Forest Ecosystems Autumn Workshop, Beijing, China.
2017 New advances in Markov Decision Process models for forest management: Multi-criteria and risk-sensitive decision making. Forest Sciences and Technology Centre of Catalonia, Solsona, Spain.
2014 Markov Decision Process models: Theory and applications in health economics. Biostatistics and Epidemiology Grand Rounds, West Virginia Clinical & Translational Science Institute. Morgantown, WV, USA.
2014 Understanding forest carbon cycles from an LCA perspective: Accounting for uncertainty and risk. Forest Ecosystems Autumn Workshop, Beijing, China.
2009 Forest management and the social discount rate. Joint International Meeting of Canadian Operations Research Society and Institute for Operations Research and Management Sciences. Toronto, Canada.

CONTRIBUTED (N=22, three given by advisees, denoted by ǂ)

2019 Substitution, forest species diversity, and timber market volatility. Sustainability: Transdisciplinary Theory (STTPA) Conference 2019, Mississauga, Ontario, Canada.
2019 Multi-criteria management of central hardwood forests under climate and fire uncertainty with a scenario optimization approachǂ. International Society of Forest Resource Economics 2019 Conference, Columbus, OH.
2019 Accessing the effectiveness of forest incentive program on watershed conservation: An ecological–economic modeling approachǂ. International Society of Forest Resource Economics 2019 Conference, Columbus, OH.
2019 Impacts of China's import tariffs on Indiana's hardwood industry: A welfare analysisǂ. International Society of Forest Resource Economics 2019 Conference,

Columbus, OH.

2017 New advances in Markov Decision Process models for forest management: Multicriteria and risk-sensitive decision making. International Society of Forest Resource Economics 2017 Conference, New Orleans, LA

2017 A two-species model of stumpage market and its implications. International Society of Forest Resource Economists 2017 Conference, New Orleans, LA

2016 Nonmarket valuation through inverse optimization. International Society of Forest Resource Economics 2016 Conference, Raleigh, NC

2016 Dynamics and composition of Alaska coastal forests under climate change. International Society for Ecological Modelling Global Conference. Baltimore, MD

2013 Heating with woody biomass in Alaska: A life-cycle perspective. Society of American Foresters National Convention. North Charleston, SC

2012 Investing in forest carbon offset projects under climate policy uncertainty – A Markovian framework with simulations. EcoSummit, Columbus, OH

2012 Investing in forest carbon offset projects under climate policy uncertainty: A conceptual model. Southern Forest Economics Workers (SOFEW) Annual Meeting, Charlotte, NC

2012 Effects of stochastic interest rates on managing Douglas fir/western hemlock forests. Western Forest Economist Meeting, New Port, OR

2012 To discount or not to discount ecological criteria in Douglas-fir/western hemlock forests? 2012 Western Forest Economist Meeting, New Port, OR

2011 Investment in forest carbon management under policy uncertainty. Society of American Foresters National Convention. Honolulu, HI

2010 Modeling Alaska boreal forests with a controlled trend surface approach. Forest Inventory and Analysis Symposium. Knoxville, TN.

2009 Further generalization of Faustmann's formula for stochastic interest rates. 2009, Third International Faustmann Symposium. Darmstadt, Germany.

2008 Economic and ecological effects of diameter caps: A Markov decision model for Douglas- fir/western hemlock forests". IUFRO Conference: Linking Forest Inventory and Optimization. Freising, Germany.

2007 Economic and ecological effects of diameter caps. Western Forest Economists Meeting. Portland, OR

2006 The use of Markov optimization models in the economic and ecological management of forested landscapes under risk. The third Iberian American Symposium on Forest Management and Economics and 11th Symposium on System Analysis in Forest Resources. Brazil

2006 Forest management analysis using Markov chain modeling. Western Forest Economists Meeting. Portland, OR

2004 Space-time modeling of timber prices. Midwest Forest Economists and Mensurationists Conference. Grand Rapids, Michigan.
🎗 Best student presentation

2003 Price transmission between products at different stages in forestry. 2003 Midwest Forest Economists and Mensurationists Conference. Madison, WI

SELECTED GRANTS (SINCE 2018)

1. Funding source: Indiana Department of Natural Resources
Title: An Integrated Economic Assessment of Outdoor Activities Related to White-Tailed Deer and Furbearers in Indiana
Type: Competitive
Total direct costs: $496,970 Duration: 1.1.2021 to 12.31.2023

Role: PI (Project co-lead: Carson Reeling) Effort: 38%
Responsibilities: conducting input-output analysis to estimate the total economic impacts of outdoor activities related to white-tailed deer and furbearers, and developing a dynamic input-output optimization model for wildlife resource planning
2. Funding source: USDA-Agricultural Marketing Service
Title: Enhancing the Awareness, Knowledge, and Understanding of Sustainable Maple Syrup Production Practices Among Current and Potential Maple Syrup Producers
Type: Competitive
Total project amount: $499,440 Duration: 10.1. 2020 to 9.30.2023
PI: Thomas Ochuodho (University of Kentucky)
Subaward amount: $100,000
Role: PI of Subaward Effort: 60% of Subaward
Responsibilities: quantifying historical harvesting data, estimating risk of natural disturbances, and developing an interactive spatial decision support system
3. Funding source: USDA Forest Service Hardwood Tree Improvement and Regeneration Center
Title: Economic Analysis of Growth & Yield and Thinning Decisions on Hardwood Plantations
Type: Competitive
Total project amount: $139,151 Duration: 2.3.2020 to 2.2.2022
Role: PI
Responsibilities: designing and supervising the development of growth models and extension tools for mixed hardwood plantations
4. Funding source: Purdue University Department of Forestry and Natural Resources Postdoc Scholarship
Title: Impacts and Implications of Forest Products Trade: a First Look at the Central Hardwood Region
Type: Competitive
Total project amount: $101,200 Duration: 1. 1. 2019 to 12.31. 2021
Role: PI
Responsibilities: designing and supervising the analysis of trade policy's impacts on regional hardwood sector
5. Funding source: Purdue University Department of Forestry and Natural Resources Small Grants
Title: Data for Analysis of a New Experimental Design for Investigating Species Interactions
Type: Competitive
Total project amount: $8,600 Duration: 1.1.2019 to 12.31.2019
Role: PI
Responsibilities: developing spatial statistical models to analyze the effect of spatial neighborhood on plant biomass
6. Funding source: Purdue Research Foundation – 2020 Summer Faculty Grant
Title: Assessing the impacts of emerald ash borer invasion on Indiana's timber markets, forest landowners, and hardwood industry
Type: Competitive
Total Project amount: $10,400 Duration: 5/10/2020 to 9/14/2020
Role: PI
Responsibilities: developing the economic theory of substitution between timber of different grades in manufacturing, and applying the theory to quantify the welfare impacts of emerald ash borer invasion on Indiana's hardwood sector
7. Funding source: Purdue Research Foundation
Title: Optimal establishment of mixed-species hardwood plantations
Type: Noncompetitive
Total Project amount: $31,119 Duration: 8/1/2020 to 7/30/2021
Role: PI

Responsibilities: designing and supervising research on robust optimization models for effective and efficient management of hardwood plantations in the early stage

8. Funding source: Purdue Climate Change Research Center
Title: Investigating ice storm risks in a changing climate
Type: Competitive
Total project amount: $19,600 Duration: 9.1.2019 to 8.31.2020 (extended to 2021)
PI: Daniel Chavas
Role: Co-PI Effort: ca. 15%
Responsibilities: participating in creating a roadmap for key open research questions related to ice storms, with a focus on economic impacts of ice storm on forest ecosystems

GRADUATE ADVISEES

Name	Years	Degree	Institution
Wu Ma	2012 - 2016	Ph.D.	West Virginia University

Dissertation: A multiple-objective framework for sustainable forest management under uncertainty in the U.S. Central Hardwood Region
Current employment: Postdoctoral Fellow at Los Alomas National Lab

James Watson* 2014 – 2018 Ph.D. West Virginia University
Dissertation: Exploring forest diversity and ecosystem services using big data and empirical dynamic modeling * *Co-advising with Jingjing Liang*
Current employment: Tenure-track Assistant Professor at Cumberland College (Maryland)

Vamsi Vipparla 2018 - 2020 M.S. Purdue University
Thesis: Adaptive management of mixed-species hardwood forests under risk and uncertainty

Sayon Ghosh* 2019 - 2023 Ph.D. Purdue University
Dissertation: A real options analysis of investments in mixed hardwood plantations for timber production and carbon credits (tentative) * *Co-advising with Mike Saunders*

OTHER GRADUATE MENTORING

Name	Institution	Duration	Degree	Status
Vanessa Spencer	University of Alaska	2008 - 2009	M.S.	Completed
Mike Russell	University of Alaska	2008 - 2009	M.S.	Completed
Jack Gadamus	University of Alaska	2009 - 2011	M.S.	Completed
Aaron Carpenter	WVU	2012 - 2014	M.S.	Completed
Nicholas Shaw	WVU	2017 - 2018	Ph.D.	Unfinished
Mesut Uysal	Purdue University	2015 - 2019	Ph.D.	Completed
Akane Ota	Purdue University	2018 - 2022	Ph.D.	In progress
Dongwhoi Moon	Purdue University	2019 - 2021	Ph.D.	In progress
Jue Mo	Purdue University	2019 - 2023	Ph.D.	In progress