

# HONGBO YU

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(Last Update: January 2022)

## EDUCATION

Ph.D.	Geography	The University of Tennessee	2005
M.Phil.	Geography	The Chinese University of Hong Kong	2001
B.S.	Geography	Peking University	1997

## RESEARCH INTERESTS

Geographic information systems and science, transportation geography, time geography, spatio-temporal analysis and modeling, accessibility analysis

## PROFESSIONAL APPOINTMENTS

Associate Professor, Oklahoma State University, 2011-present  
Assistant Professor, Oklahoma State University, 2005-2011

## PUBLICATIONS

### Peer-reviewed Publications:

- 2018 Zhao, Y. and **H. Yu**. A door-to-door travel time approach for evaluating modal competition of intercity travel: A focus on the proposed Dallas-Houston HSR route. *Journal of Transport Geography*, 72, 13–22.
- 2017 **Yu, H.** A space-time GIS for visualizing and analyzing clusters in large tracking datasets. In C. Zhou, F. Su, F. Harvey, and J. Xu (eds) *Spatial Data Handling in Big Data Era. Advances in Geographic Information Science*. Singapore: Springer, 93-109.
- 2017 Liu, T., Q. Pan, Javier Sanchez, S. Sun, N. Wang, and **H. Yu**. Prototype decision support system for black ice detection and road closure control. *IEEE Intelligent Transportation Systems Magazine*, 9(2), 91-102.
- 2012. Bombom, L. and **H. Yu**. Space-time path-based fragmentation index for exploring activity chains. In *Proceedings of the Time-Geographic Information Science Workshop at GIScience 2012*, Columbus, OH, September 19-21, 2012.
- 2011 Yin, L., S-L Shaw, and **H. Yu**. Potential effects of ICT on face-to-face meeting opportunities: a GIS-based time-geographic approach. *Journal of Transport Geography*, 19(3), 422-433.

- 2011 Chen, J., S-L Shaw, **H. Yu**, F. Lu, Y. Chai, and Q. Jia. Exploratory data analysis of activity diary data: a space-time GIS approach. *Journal of Transport Geography*, 19(3), 394-404.
- 2011 **Yu, H.** and S-L. Shaw. GIS designs for studying human activities in a space-time context. In T. Nyerges, H. Couclelis, and R. McMaster (eds.) *The SAGE Handbook of GIS and Society*. Thousand Oaks, CA: SAGE Publications, 251-268.
2009. Shaw, S-L and **H. Yu**. A GIS-based time-geographic approach of studying individual activities and interactions in a hybrid physical–virtual space. *Journal of Transport Geography*, 17(2), 141-149.
2009. **Yu, H.** and S-L. Shaw. A space-time GIS approach to exploring clusters in large moving objects datasets. In *Proceedings of the 3<sup>rd</sup> ICA Workshop on Geospatial Analysis and Modeling*, Gävle, Sweden, August 6-7, 2009.
2009. **Yu, H.** and S-L. Shaw. Exploring patterns in individual-based activity datasets: a space-time GIS approach. In *Proceedings of the 2009 International Workshop on GIS for Transportation*, Wuhan, China, December 4-6, 2009, pp. 145-150.
2008. **Yu, H.** and S-L. Shaw. A space-time GIS for exploring stations in large tracking datasets of moving objects. In T. Cova et al. (eds.) *Proceedings of the 5<sup>th</sup> International Conference on Geographic Information Science (Extended Abstracts)*, Park City, UT, September 23-26, 2008, pp. 220-225.
2008. Shaw, S-L., **H. Yu**, and L. S. Bombom. A space-time GIS approach to exploring large individual-based spatiotemporal datasets. *Transactions in GIS*, 12(4), 425-441.
2008. **Yu, H.** and S-L. Shaw. Exploring potential human activities in physical and virtual spaces: a spatio-temporal GIS approach. *International Journal of Geographic Information Science*, 22(4), 409-430.
2007. **Yu, H.** Visualizing and analyzing activities in an integrated space-time environment: temporal GIS design and implementation. *Transportation Research Record: Journal of the Transportation Research Board*, 2024, 54-62.
2006. **Yu, H.** Spatio-temporal GIS design for exploring interactions of human activities. *Cartography and Geographic Information Science*, 33(1), 3-19.

#### **Book Chapters, Conference Proceedings, and Other Publications:**

2014. Liu, T., J. Basara, S. Bukkapatnam, Y. Hong, N. Wang, and **H. Yu**. Black Ice Detection and Road Closure and Warning Control System for Oklahoma. Final report submitted to Oklahoma Department of Transportation (ODOT) for project SP&R 2249, September 30<sup>th</sup>, 2014.
2013. Liu, T., T. Collins, Y. Hong, J. Vogel, **H. Yu**, and L. Zhu. Decision support system for road closures in flash flood emergencies. Final report submitted to Oklahoma Transportation Center for project #OTCREOS11.1-41, June 30<sup>th</sup>, 2013. Accessible online at <http://oktc.org/otc/files/finalReports/OTCREOS11.1-41-F.pdf>.
2013. **Yu, H.**, L. Zhu, T. Liu, W. Zhou, and Q. Pan. Using GIS to assess the socioeconomic impacts of flash floods in Oklahoma. In *Proceedings of the 12<sup>th</sup> Hawaii International Conference on Social Sciences*, Honolulu, HI, May 29 – June 1, 2013.

2010. **Yu, H.** GIS Design. In Barney Warf (ed.) *Encyclopedia of Geography*. Thousand Oaks, CA: SAGE Publications, 1290-1293.
2010. **Yu, H.** Temporal GIS. In Barney Warf (ed.) *Encyclopedia of Geography*. Thousand Oaks, CA: SAGE Publications, 2796-2797.
2009. **Yu, H.** and S-L. Shaw. A custom extension of extended time-geographic framework tools in ArcGIS. A user guide to an ArcGIS extension for time geography applications. 18 pages.
2008. **Yu, H.** Book Review: The Geography of Transport Systems by J.-P. Rodrigue, C. Comtois, and B. Slack. New York: Routledge. *The Professional Geographer*, 60(3), 435-437.
2007. **Yu, H.** and S-L. Shaw. Revisiting Hägerstrand's time-geographic framework for individual activities in the age of instant access. In H. J. Miller (ed.) *Societies and Cities in the Age of Instant Access*. Netherlands: Springer, 103-118.
2007. **Yu, H.** Exploring emerging spatio-temporal patterns of human activities with a GIS-based extended time-geographic framework. In *Proceedings of the 6<sup>th</sup> Hawaii International Conference on Social Sciences*, Honolulu, HI, May 30-June 2, 2007.
2005. **Yu, H.** and S-L. Shaw. Revisiting Hägerstrand's time-geographic framework for individual activities in the age of instant access. In *Proceedings of Research Symposium on Societies and Cities in the Age of Instant Access*, Salt Lake City, Utah, November 10-12, 2005.
2004. **Yu, H.** and S-L. Shaw. Representing and visualizing travel diary data: a spatio-temporal GIS approach. In *Proceedings of 2004 ESRI International User Conference*, available on CD-ROM and at <http://www.esri.com/library/userconf/archive.html>.

## **GRANTS AND CONTRACTS**

- 2022-2023. "Development of a molecular point-of-care diagnostic test and a mapping platform for Foot and mouth disease (FMD) detection and tracking," **2021 Joint Funding Opportunity from the National Animal Health Laboratory Network (NAHLN) and National Animal Disease Preparedness and Response Program (NADPRP)**, USDA, Co-PI (PI: Akhilesh Ramachandran; other Co-PIs: Jerry Saliki, Amy Hagerman). January 2022 – December 2023. \$440,289.
- 2020-2022. "Development of an Interactive Spatial Agrometrics Tool for the Calculation of Livestock (Cattle, Swine and Poultry) Populations in the United States at the County and Parish Level," **National Animal Health Laboratory Network (NAHLN) Enhancements Grant**, USDA, Co-PI (PI: Akhilesh Ramachandran; other Co-PIs: Amy Hagerman, Emily Cooper, Derrell Peel). March 2020 – February 2022. \$160,424.
2016. **Arts and Sciences FY 2017 Fall Travel Grant**, Oklahoma State University. \$1,000.
- 2012-2014. "Black Ice Detection and Road Closure and Warning Control System for Oklahoma," **Oklahoma Department of Transportation (ODOT)**. Co-PI (PI: Tieming Liu at Oklahoma State University; other Co-PIs: Satish Bukkapatnam and Ning Wang at Oklahoma State University, and Yang Hong

- and Jeff Basara at University of Oklahoma). October 2012 – September 2014. \$230,544.
- 2013-2014. “A 3D Indoor Digitization System for Emergency Response and Management,” **OSU Planning Grants for Establishing Creative Interdisciplinary Programs**. Co-PI (PI: Weihua Sheng; other Co-PI: Tingguang Ma). August 2013 – August 2014. \$41,486.
- 2012-2013. "Metrics for the Socio-economic Impact of Two Wind Farms in Oklahoma," **Texas Christian University**. Co-PI (PI: Steve Stadler). November 2012 – March 2013. \$16,123.
- 2012-2013. “Decision Support System for Road Closures in Flash Flood Emergencies,” **Oklahoma Transportation Center**. Co-PI (PI: Tieming Liu at Oklahoma State University; other Co-PIs: Terry Collins, Jason Vogel, and Lan Zhu at Oklahoma State University, and Yang Hong at University of Oklahoma). April 2012 – June 2013. \$224,988 + \$226,237 university matching funds.
2011. “A Space-Time GIS to Explore Spatiotemporal Patterns of Moving Objects: A Pilot Study,” **Arts and Sciences Summer Research Grant+ Travel Grant**, Oklahoma State University. PI. Summer 2011. \$8,329.
- 2006-2010. “Towards A GIS-based Analytical Time-Geographic Framework for Physical and Virtual Activities,” **U.S. National Science Foundation**, Division of Behavior and Cognitive Science. Grant # BCS-0616724. Co-PI (PI: Shih-Lung Shaw, The University of Tennessee). August 2006 – January 2010. \$212,045 (OSU portion: \$79,549).
2009. **Arts and Sciences FY 2010 Fall Travel Grant**, Oklahoma State University. \$1,000.
2008. **Arts and Sciences FY 2009 Fall Travel Grant**, Oklahoma State University. \$1,000.
2007. “A Temporal GIS Approach for Analyzing Migration Histories,” **Dean’s Incentive Grant**, Oklahoma State University. PI. July, 2007. \$3,000.
2007. “Incorporating Population Characteristics in Routing Decision for Radioactive Waste in Oklahoma: A GIS Approach,” **Arts and Sciences Summer Research Grant+ Travel Grant**, Oklahoma State University. PI. Summer 2007. \$7,064.
2006. “Exploring Spatio-temporal Pattern Changes of Human Activities in the Information Age,” **Dean’s Incentive Grant**, Oklahoma State University. PI. July 2006. \$3,000.
2006. “A GIS Implementation to Analyze the Process of Human Activities,” **Arts and Sciences Summer Research Grant**, Oklahoma State University. PI. Summer 2006. \$5,725.

**Instructional Support Grants:**

2018. **Student Technology Fee (STF)** Program proposal for increasing seats in GIS Lab I to accommodate larger section enrollments for tech courses, College of Arts and Sciences, Oklahoma State University. February 2018. \$13,881.
2011. **Student Technology Fee (STF)** Program proposal for upgrading the TransCAD software package for instructional improvement, College of Arts and Sciences, Oklahoma State University. April 2011. \$12,200.

2005. **Student Technology Fee (STF)** Program proposal for purchasing TransCAD for instructional improvement, College of Arts and Sciences, Oklahoma State University. December 2005. \$18,150.

## **PROFESSIONAL PRESENTATIONS**

### **Presentations:**

- 2021 **Yu, H.** and Q. Pan. Urban Form, Time Constraint, and Gender Difference in Job Accessibility. Presented virtually at *the 2021 Annual Meeting of the Southwest Division of the American Association of Geographers*, Oklahoma City, OK, October 14 – 15, 2021.
- 2021 Grace, S. and **H. Yu**. A GIS Platform for Calculating Livestock Populations around a Point of Interest. Presented at *the 2021 Annual Meeting of the Southwest Division of the American Association of Geographers*, Oklahoma City, OK, October 14 – 15, 2021.
- 2020 **Yu, H.** and Q. Pan. Examining Occupational Gender Segregation: A Space-Time Job Accessibility Analysis Approach. Presented virtually at *the 2020 Annual Meeting of the Southwest Division of the American Association of Geographers*, November 17 – 19, 2020.
- 2020 **Yu, H.** and Q. Pan. A Space-Time Job Accessibility Analysis for Investigating Occupational Gender Segregation. To be presented at *the 2020 Annual Meeting of American Association of Geographers*, Denver, CO, April 6 – 10, 2020.
- 2019 **Yu, H.** and Y. Zhao. Evaluating the Impact of a Proposed High-speed Rail (HSR) on Modal Competition for Intercity Travels. Presented at *the 2019 Annual Meeting of American Association of Geographers*, Washington D.C., April 3 – 7, 2019.
- 2019 Zhao, Y. and **H. Yu**. The Impact of Urban Form on HSR Accessibility – A Modal Competition Approach. Presented at *the 2019 Annual Meeting of American Association of Geographers*, Washington D.C., April 3 – 7, 2019.
- 2018 **Yu, H.** and Q. Pan. Exploring the Impact of Urban Form on Gender Differences in Job Accessibility. Presented at *the 2018 Annual Meeting of American Association of Geographers*, New Orleans, LA, April 10 – 14, 2018.
- 2017 **Yu, H.** Analyzing Bundles of Space-time Paths. Presented at *the 2017 Annual Meeting of American Association of Geographers*, Boston, MA, April 5 – 9, 2017.
- 2016 **Yu, H.** A space-time GIS for visualizing and analyzing clusters in large tracking datasets. Presented at *the 17<sup>th</sup> International Symposium on Spatial Data Handling*, Beijing, China, August 18 – 20, 2016.
- 2016 Zhao, Y. and **H. Yu**. Will urban form reject high-speed rail in the United States? – A focus on the proposed Dallas-Houston Route. Presented at *the 2016 Annual Meeting of the Southwestern Division of the American Association of Geographers*, Denton, TX, October 20 – 22, 2016.
- 2016 **Yu, H.** Visualizing and exploring spatiotemporal clusters of space-time paths. Presented at *the 2016 Annual Meeting of American Association of Geographers*, San Francisco, CA, March 28 – April 2, 2016.

- 2016 Zhao, Y. and **H. Yu**. Challenge of the last mile – assessing the accessibility impact of the proposed high-speed rail between Dallas and Houston at the intra-city level. Presented at *the 2016 Annual Meeting of American Association of Geographers*, San Francisco, CA, March 28 – April 2, 2016.
- 2016 Pan, Q. and **H. Yu**. A Time-geographic Approach to Investigating Gender Difference in Accessing Employment Opportunities in a Metropolitan Area. Presented at *the 2016 Annual Meeting of American Association of Geographers*, San Francisco, CA, March 28 – April 2, 2016.
- 2015 Zhao, Y. and **H. Yu**. Assessing the accessibility impact of the proposed high-speed rail between Dallas and Houston at intra-city level. Presented at *the 38<sup>th</sup> Applied Geography Conference*, San Antonio, TX, November 4-11, 2015.
- 2015 Pan, Q. and **H. Yu**. Exploring gender difference in commuting: a cluster analysis on their spatial distribution patterns. Presented at *the 2015 Transportation Research Day*, Oklahoma City, OK, October 20, 2015.
- 2015 Haffner, M. and **H. Yu**. Measuring social interaction potential in Oklahoma City and Tulsa. Presented at *the 2015 Annual Meeting of Association of American Geographers*, Chicago, IL, April 21-25, 2015.
- 2015 Pan, Q. and **H. Yu**. Space-time path based clustering method to analyze gender difference on activity patterns. Presented at *the 2015 Annual Meeting of Association of American Geographers*, Chicago, IL, April 21-25, 2015.
- 2015 Zhao, Y. and **H. Yu**. Accessibility analysis of high-speed rail (HSR) – a case study on the proposed Dallas-Houston HSR line. Presented at *the 2015 Annual Meeting of Association of American Geographers*, Chicago, IL, April 21-25, 2015.
- 2014 Pan, Q. and **H. Yu**. Using GIS to support road closure decisions in black ice emergencies. Presented at *the 2014 Transportation Research Day*, Oklahoma City, OK, October 21, 2014.
- 2014 **Yu, H.** and L. S. Bombom. A time-geographic approach to measuring fragmentation in a daily activity schedule. Presented at *the 2014 Annual Meeting of Association of American Geographers*, Tampa, FL, April 8-12, 2014.
2013. Pan, Q. and **H. Yu**. A custom GIS application to support road closure decisions in flash flood emergencies. Presented at *the 2013 ODOT-OkTC Transportation Research Day*, Oklahoma City, OK, September 12, 2013.
2013. Collins, T., Y. Hong, T. Liu, J. Vogel, **H. Yu**, and L. Zhu. Decision support system for road closures in flash flood emergencies. Presented at *the 2013 ODOT-OkTC Transportation Research Day*, Oklahoma City, OK, September 12, 2013.
2013. **Yu, H.**, L. Zhu, T. Liu, W. Zhou, and Q. Pan. Using GIS to assess the socioeconomic impacts of flash floods in Oklahoma. Presented at *the 12th Hawaii International Conference on Social Sciences*, Honolulu, HI, May 29 – June 1, 2013.
2013. **Yu, H.** Exploring activity patterns in a large tracking dataset: a time-geography approach. Presented at *the 2013 Annual Meeting of Association of American Geographers*, Los Angeles, April 9-13, 2013.

2012. Bombom, L. and **H. Yu**. Space-time path-based fragmentation index for exploring activity chains. Presented at *the Workshop on Time-Geographic Information Science at GIScience 2012*, Columbus, OH, September 19-21, 2012.
2011. Shaw, S-L. and **H. Yu**. Time geography and space-time integration. Presented at *the 107<sup>th</sup> Annual Meeting of the Association of American Geographers*, Seattle, WA, April 12-16, 2011.
2011. Zhao, Y. and **H. Yu**. Assessing road link importance: a case study of potential bridge collapse in Oklahoma. Presented at *the 107<sup>th</sup> Annual Meeting of the Association of American Geographers*, Seattle, WA, April 12-16, 2011.
2011. Chen, J., S-L. Shaw, F. Lu, **H. Yu**, Y. Chai, and Q. Jia. Exploring human activity patterns in Beijing, China based on a space-time GIS approach. Presented at *the 107<sup>th</sup> Annual Meeting of the Association of American Geographers*, Seattle, WA, April 12-16, 2011.
2010. **Yu, H.**, and G. A. Finchum. Visualizing a Bedlam game in a space-time GIS. Presented at *the 2010 Annual Meeting of the Southwestern Division of the Association of American Geographers*, Tahlequah, OK, October 14-16, 2010.
2010. **Yu, H.**, and G. A. Finchum. Using space-time GIS to explore movements of players in team sports. Presented at *the 106<sup>th</sup> Annual Meeting of The Association of American Geographers*, Washington, D.C., April 14-18, 2010.
2010. Stadler, S., G. A. Finchum, **H. Yu**, and J. S. Greene. ZephyrBox: A geographic toolkit for the wind industry. Presented at *the 106<sup>th</sup> Annual Meeting of The Association of American Geographers*, Washington, D.C., April 14-18, 2010.
2009. **Yu, H.** and S-L. Shaw. Exploring patterns in individual-based activity datasets: a space-time GIS approach. Presented at *the 2009 International Workshop on GIS for Transportation*, Wuhan, China, December 4-6, 2009.
2009. **Yu, H.** and S-L. Shaw. A space-time GIS approach to exploring clusters in large moving objects datasets. Presented at *the 3<sup>rd</sup> ICA Workshop on Geospatial Analysis and Modeling*, Gävle, Sweden, August 6-7, 2009.
2009. **Yu, H.** and S-L. Shaw. A space-time GIS for exploring clusters in a large trajectory dataset. Presented at *the 105<sup>th</sup> Annual Meeting of The Association of American Geographers*, Las Vegas, NV, March 22-27, 2009.
2009. Yin, L., S-L. Shaw, and **H. Yu**. A study for individual activities and interactions in a hybrid physical-virtual space based on time geography framework. Presented at *the 105<sup>th</sup> Annual Meeting of The Association of American Geographers*, Las Vegas, NV, March 22-27, 2009.
2008. **Yu, H.** and S-L. Shaw. A space-time GIS for exploring stations in large tracking datasets of moving objects. Presented at *the 5<sup>th</sup> International Conference on Geographic Information Science*, Park City, UT, September 23-26, 2008.
2008. Shaw, S-L., **H. Yu**, and L. S. Bombom. A space-time GIS approach to exploring large individual-based spatiotemporal datasets. Presented at *the 2008 ESRI International User Conference*, San Diego, CA, August 4-8, 2008.
2008. **Yu, H.**, S-L. Shaw, and L. S. Bombom. Exploring patterns in individual-based activity datasets: a space-time GIS approach. Presented at *the 104<sup>th</sup> Annual Meeting of The Association of American Geographers*, Boston, MA, April 15-19, 2008.

- 2008 Shaw, S.-L. and **H. Yu**. A space-time GIS for time geography: requirements and challenges. Presented at *the 104th Annual Meeting of The Association of American Geographers*, Boston, MA, April 15-19, 2008.
- 2008 Bombom, L. S., **H. Yu**, S-L. Shaw, and Y. Zhao. Visualizing large sets of space-time paths in GIS. Presented at *the 104th Annual Meeting of The Association of American Geographers*, Boston, MA, April 15-19, 2008.
2008. Yin, L., S-L. Shaw, and **H. Yu**. A time-geographic approach for activity planning and scheduling with virtual activities. Presented at *the 104th Annual Meeting of The Association of American Geographers*, Boston, MA, April 15-19, 2008.
- 2008 Huang, X., S-L. Shaw, and **H. Yu**. Exploring migration patterns in space and time: a case study of Northern Great Plains. Presented at *the 104th Annual Meeting of The Association of American Geographers*, Boston, MA, April 15-19, 2008.
- 2008 Shaw, S-L. and **H. Yu**. A GIS-based time-geographic framework for spatio-temporal analysis of individual activities and interactions. Presented at *the 3<sup>rd</sup> Meeting on ICT, Everyday Life and Urban Change*, Coombe Lodge, Bristol, UK, March 16-19, 2008.
2007. **Yu, H.** Exploring emerging spatio-temporal patterns of human activities with a GIS-based extended time-geographic framework. Presented at *the 6<sup>th</sup> Hawaii International Conference on Social Science*, Honolulu, HI, May 30-June 2, 2007.
2007. **Yu, H.** and S-L. Shaw. A temporal GIS design for exploring spatio-temporal patterns of acquisition projects. Presented at *the 103<sup>rd</sup> Annual Meeting of the Association of American Geographers*, San Francisco, CA, April 17-22, 2007.
2007. Shaw, S-L. and **H. Yu**. An extended time-geographic framework for studying human activities in physical and virtual spaces. Presented at *the 103<sup>rd</sup> Annual Meeting of the Association of American Geographers*, San Francisco, CA, April 17-22, 2007.
2007. **Yu, H.** Visualizing and analyzing activities in an integrated space-time environment: temporal GIS design and implementation. Presented at *the 86<sup>th</sup> Annual Meeting of Transportation Research Board (TRB)*, Washington, D.C., January 21-25, 2007.
2006. **Yu, H.** A 3D GIS approach of implementing the space-time prism concept. Presented at *the 2006 Annual Meeting of the Southwestern Division of the Association of American Geographers*, Norman, OK, October 25-28, 2006.
- 2006 **Yu, H.** Exploring Spatio-temporal relationships of space-time paths at various scales: GIS design and implementation. Presented at *the 102<sup>nd</sup> Annual Meeting of the Association of American Geographers*, Chicago, IL, March 7-11, 2006.
2005. **Yu, H.** Revisiting Hägerstrand's time-geographic framework for individual activities in the age of instant access. Presented at *the Symposium on Societies and Cities in the Age of Instant Access*, Salt Lake City, UT, November 10-12, 2005.
2005. **Yu, H.** Exploring potential human activities in physical and virtual spaces: a spatio-temporal GIS approach. Presented at *the 101<sup>st</sup> Annual Meeting of the Association of American Geographers*, Denver, CO, April 5-9, 2005.



2004. **Yu, H.** Spatio-temporal GIS design for exploring interactions of human activities. Presented at *the Third International Conference on Geographic Information Science (GIScience 2004) and 2004 University Consortium for Geographic Information Science Annual Assembly and Summer Retreat*, Adelphi, MD, October 20-23, 2004.
2004. **Yu, H.** Spatiotemporal GIS design for representation of activity-travel diary data. Presented at *the 100<sup>th</sup> Annual Meeting of the Association of American Geographers*, Philadelphia, PA, March 15-19, 2004.
2004. Shaw, S-L. and **H. Yu.** An extended time-geographic framework for physical and virtual activities: GIS design and implementation. Presented at *the Third STELLA Focus Group 2 Workshop*, Budapest, Hungary, April 22-23, 2004.
2003. **Yu, H.** A geographical approach to transportation problems in logistics management. Presented at *the 99<sup>th</sup> Annual Meeting of the Association of American Geographers*, New Orleans, LA, March 4-9, 2003.

**Invited Talk:**

2013. **Yu, H.** Thinking Spatially: GIS for Transportation and Logistics. An invited talk given in the Academic Speaker Series of the INFORMS-OSU Student Chapter. School of Industrial Engineering and Management, Oklahoma State University, April 16, 2013.

**Organized Sessions at Professional Meetings:**

2016. **Yu, H., K. Ellegård, S-L Shaw, and M. Dijst.** “Time Geography: New Challenges and Opportunities.” Co-organizer of three special paper sessions at *the 2016 Annual Meeting of the Association of American Geographers*, San Francisco, CA, March 29 – April 2, 2016.
2015. Shaw, S-L, **H. Yu, K. Ellegård, and T. Schwanen.** “Time Geography: Integrating Space with Time in Geographic Research.” Co-organizer of three special paper sessions at *the 2015 Annual Meeting of the Association of American Geographers*, Chicago, IL, April 21-25, 2015.
2014. Shaw, S-L, **H. Yu, and K. Ellegård.** “Time Geography: New Research Directions, Developments, and Applications.” Co-organizer of three special paper sessions at *the 2014 Annual Meeting of the Association of American Geographers*, Tampa, FL, April 8-12, 2014.
2013. Shaw, S-L, S. Farber, **H. Yu, and T. Neutens.** “Time Geography in the Big Data Era.” Co-organizer of two special paper sessions at *the 109<sup>th</sup> Annual Meeting of the Association of American Geographers*, Los Angeles, CA, April 9-13, 2013.
2012. **Yu, H. and S-L. Shaw.** “Time Geography: Theoretical Developments and Applications.” Co-organizer of two special paper sessions at *the 108<sup>th</sup> Annual Meeting of the Association of American Geographers*, New York City, NY, February 24-28, 2012.
2011. Shaw, S-L. and **H. Yu.** “Time Geography: Recent Progress and Future Prospects.” Co-organizer of three special paper sessions at *the 107<sup>th</sup> Annual Meeting of the Association of American Geographers*, Seattle, WA, April 12-16, 2011.

2010. Shaw, S-L. and **H. Yu**. “Time Geography: Its Past, Present and Future.” Co-organizer of two special paper sessions at *the 106<sup>th</sup> Annual Meeting of the Association of American Geographers*, Washington, D.C., April 14-18, 2010.
2009. **Yu, H.** and S-L. Shaw. “Time Geography: New Possibilities in the 21<sup>st</sup> Century.” Co-organizer of two special paper sessions at *the 105<sup>th</sup> Annual Meeting of the Association of American Geographers*, Las Vegas, NV, March 22-27, 2009
2008. **Yu, H.** and S-L. Shaw. “Time Geography: Emerging Theoretical Developments, Implementations, and Applications.” Co-organizer of two special paper sessions at *the 104<sup>th</sup> Annual Meeting of the Association of American Geographers*, Boston, MA, April 15-19, 2008.
2007. **Yu, H.** and S-L. Shaw. “GIS for Transportation: Recent Challenges and Developments.” Co-organizer of two special paper sessions at *the 103<sup>rd</sup> Annual Meeting of the Association of American Geographers*, San Francisco, CA, April 17-22, 2007.

## **HONORS AND AWARDS:**

2006. **Best PhD Dissertation Award** of Transportation Geography Specialty Group (TGSG) of the Association of American Geographers (AAG) at the 102<sup>nd</sup> Annual Meeting of AAG, Chicago, IL.
2005. **First Place** of Geographic Information Systems and Science Specialty Group (GISSG) Student Honor Paper Competition of the Association of American Geographers (AAG) at the 101<sup>st</sup> Annual Meeting of AAG, Denver, CO.
2004. **Winner of Cartography and Geographic Information Science (CaGIS) Award** for Paper Competition at the 2004 University Consortium for Geographic Information Science (UCGIS) Annual Assembly, Delphi, MD.
2004. **Robert G. Long Outstanding Graduate Student**, Department of Geography, The University of Tennessee.
2004. **Student Assistantship**, 2004 ESRI International User Conference, San Diego, CA.
2003. **First Place for Student Poster Competition** at the East Tennessee Regional GIS Conference, Knoxville, TN.
2002. **Outstanding Teaching Assistant Award**, Department of Geography, The University of Tennessee.

## **PROFESSIONAL ACTIVITIES AND SERVICES:**

### **Departmental Service (Oklahoma State University):**

GIS Certificate Coordinator, 2006-2010, 2013-present  
 Instructional Labs/Techniques Coordinator, 2021-present  
 Member, Curriculum Committee, 2018-present  
 Faculty Mentor, 2014-2018, 2021-present  
 Member, Cartography/Remote Sensing/GIS Steering Committee, 2005-present  
 Member, Graduate Committee, 2008-2010, 2018-2021

Member, Personnel Committee, 2005-2006, 2011-2013, 2014-2015, 2017-2019  
Member, BS in Geospatial Information Science Committee, 2014-2016  
Web Master, 2009-2015  
Member, Award Committee, 2007-2008  
Faculty Secretary, 2006-2007, 2010-2011  
Member, Undergraduate Committee, 2005-2007

**College Service (Oklahoma State University):**

Chair, A&S College Sabbatical Review Committee, 2021-2022  
Member, A&S College Sabbatical Review Committee, 2019-2021  
Member, A&S College Rules and Procedures Committee, 2017-2020  
Faculty Mentor, 2018-2020  
Reviewer for the FY2016 Arts & Sciences Fall Travel Proposals (total 27 proposals)  
Member, A&S Faculty Council, 2011-2014  
Member, A&S College Policy and Planning Committee, 2010-2011  
Reviewer for the FY2010 Arts & Sciences Summer Research Grant (total 54 proposals)

**Professional Service:**

Judge for Student Paper/Poster Competition, 2021 Annual Meeting of the Southwest Division of the American Association of Geographers, Oklahoma City, OK, October 14 – 15, 2021.  
Program Committee, AutoCarto 2020, Redlands, CA, United States, May 19-22, 2020.  
Organizing Committee, Symposium on Spatiotemporal Thinking, Computing and Applications at the 2016 Annual Meeting of the Association of American Geographers, San Francisco, CA, March 29 – April 2, 2016.  
Program Committee, The 1<sup>st</sup> International Symposium on Spatiotemporal Computing, George Mason University, Fairfax, VA, July 13-15, 2015.  
Program Committee, Symposium on Spatiotemporal Thinking, Computing and Applications at the 2015 Annual Meeting of the Association of American Geographers, Chicago, IL, April 21-25, 2015.  
Vice Chair, Transportation Geography Specialty Group (TGSG) of the Association of American Geographers, 2010-2013  
Program Committee, International Workshop on Trajectory Data Mining and Analysis at the 13<sup>th</sup> ACM International Conference on Ubiquitous Computing (UBICOMP 2011), Beijing, China. September 17-21, 2011.  
Board Member, Transportation Geography Specialty Group (TGSG) of the Association of American Geographers, 2006-2010  
Board Member (Student Representative), Transportation Geography Specialty Group (TGSG) of the Association of American Geographers, 2003-2005

**Peer-review Service:**

- 2021. *Computers, Environment and Urban Systems* (2 manuscripts)
- 2021. *Transactions in GIS*
- 2021. *Computers & Industrial Engineering*
- 2020. *International Journal of Geographic Information Science*
- 2020. *Computers, Environment and Urban Systems*

2020. *Transactions in GIS*
2020. *Growth and Change: A Journal of Urban and Regional Policy*
2019. *International Journal of Geographic Information Science* (2 manuscripts)
2019. *Computers, Environment and Urban Systems* (1 manuscript and 1 revision)
2019. *Transportation Research Part D: Transport and Environment* (1 manuscript and 1 revision)
2019. National Science Foundation proposal
2018. *Transactions in GIS* (4 manuscripts)
2018. *Transportation*
2018. *Computers, Environment and Urban Systems*
2017. *Transportation* (7 manuscripts/revisions)
2017. *Travel Behaviour and Society* (2 manuscripts/revisions)
2017. *Transactions in GIS* (2 manuscripts)
2017. *Annals of the American Association of Geographers*
2017. *Computers, Environment and Urban Systems*
2017. *International Journal of Geographical Information Science*
2017. National Science Foundation proposal
2016. *Transportation*
2016. Book Chapter Review for edited book *Human Dynamics in the Changing World*
2016. *Computers, Environment and Urban Systems*
2016. *Proposal Review for Region 2 University Transportation Research Center*
2016. *International Journal of Digital Earth*
2015. *International Journal of Geographical Information Science* (2 different manuscripts and 1 revision)
2015. *Computers, Environment and Urban Systems* (1 manuscript and 2 revisions)
2015. *Transactions in GIS* (2 different manuscripts)
2015. *Transportmetrica A: Transport Science*
2015. *Annals of GIS*
2014. *International Journal of Geographical Information Science*
2014. National Science Foundation proposal
2014. *The 94<sup>th</sup> Annual Meeting of the Transportation Research Board*
2014. *Journal of Transport Geography* (2 different manuscripts)
2014. *Journal of Geographical Systems*
2014. *Geographical Analysis*
2013. *International Journal of Geographical Information Science* (3 different manuscripts)
2013. *Journal of Transport Geography*
2013. *Journal of Geographical Systems*
2013. *Transactions in GIS*
2013. *Proposal Review for Region 2 University Transportation Research Center*
2012. *Journal of Transport Geography* (3 manuscripts)
2012. *Journal of Geographical Systems*
2012. *International Journal of Health Geographics* (1 manuscript and 1 revision)
2012. *The 92<sup>nd</sup> Annual Meeting of the Transportation Research Board*
2012. *Transactions in GIS*

- 2011. *Annals of the Association of American Geographers*
- 2011. *Journal of Transport Geography*
- 2011. *International Journal of Geographic Information and Science*
- 2011. *The 91<sup>st</sup> Annual Meeting of the Transportation Research Board*
- 2011. *Proposal Review for Region 2 University Transportation Research Center*
- 2011. *Computers, Environment and Urban Systems*
- 2011. *Trajectory Data Mining and Analysis Workshop in UbiComp 2011*
- 2011. *Cartography and Geographic Information Science*
- 2011. *International Journal of Applied Geospatial Research*
- 2010. *Journal of Transport Geography* (2 different manuscripts and 2 revisions)
- 2010. *The 90<sup>th</sup> Annual Meeting of the Transportation Research Board*
- 2010. *Computers, Environment and Urban Systems* (2 different manuscripts)
- 2010. *Annals of GIS* (2 different manuscripts)
- 2009. *International Journal of Geographic Information and Science* (2 different manuscripts)
- 2009. *Journal of Transport Geography*
- 2009. *The 89<sup>th</sup> Annual Meeting of the Transportation Research Board*
- 2009. *Urban Geography*
- 2009. *Computers, Environment and Urban Systems* (2 different manuscripts)
- 2008. *Annals of the Association of American Geographers*
- 2008. *International Journal of Geographic Information and Science*
- 2008. *The 88<sup>th</sup> Annual Meeting of the Transportation Research Board*
- 2008. *Geography Compass*
- 2008. *Computers, Environment and Urban Systems* (2 different manuscripts)
- 2007. National Science Foundation proposal
- 2007. *Annals of the Association of American Geographers*
- 2007. *Environment and Planning B: Planning and Design*
- 2007. *The 87<sup>th</sup> Annual Meeting of the Transportation Research Board*
- 2007. *Proceedings of the Applied Geography Conference*
- 2006. *The Professional Geographer*
- 2004. *Journal of Transport Geography*

## **PROFESSIONAL DEVELOPMENT:**

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### **Oklahoma State University:**

- 2015. Certificate of Completion: Preparing Online Instructors
- 2015. Faculty Certificate in Program Outcomes Assessment
- 2011. Completion of Critical Thinking Workshop Series

## **COURSES TAUGHT:**

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### **Oklahoma State University:**

- GEOG 2343: Introduction to Geographic Information Systems (Fall 2005; Spring 2007, 2008, 2009, 2010, 2011, 2012, 2013)
- GEOG 3163: Economic Geography (Spring 2006, 2007; Fall 2007, 2009, 2011)

GEOG 3183: Transportation Geography (Fall 2006, 2008, 2010, 2012, 2014)  
 GEOG 4203/5103: Fundamentals of Geographic Information Systems (Spring 2014 – 2022)  
 GEOG 4203/5103: Fundamentals of Geographic Information Systems (Online) (Fall 2019-2021; Summer 2020-2021; Spring 2021)  
 GEOG 4383: Introduction to GIS Programming (Fall 2015)  
 GEOG 4353/5253: Socio-economic Applications of GIS (Fall 2005, 2006, 2007, 2008, 2013, 2014, 2015, 2017 – 2021)  
 GEOG 5183: Advanced Topics in Transportation Geography (Spring 2008; Fall 2009, 2011)  
 GEOG 5353: Advanced GIS: Socio-economic Applications (Spring 2010 – 2021)  
 GEOG 5450: Faculty-Student Seminar (Fall 2008; Spring 2009)  
 GEOG 6180: Seminar in Transportation Geography (Spring 2006, 2008, 2009; Fall 2010, 2012, 2013, 2015)

## STUDENTS:

### Chaired Committees (Oklahoma State University):

In progress.	Admas Siyoum (M.S., Geography)
2021.	Qinyue Pan (Ph.D., Geography, May 2021) Dissertation: <i>A Time-geographic Approach to Investigating Gender Difference in Accessing Employment Opportunities in a Metropolitan Area</i>
2018.	Yun Zhao (Ph.D., Geography, May 2018) Dissertation: <i>Exploring the Relationship between Urban Form and Door-to-door Travel Time: a Focus on High-speed Rail in the United States</i>
2015.	William Van Ness (M.S., Geography, August 2015) Creative Component Project: <i>Riding the Bus: A Study of the Accessibility of the OSU - Stillwater Community Transit</i>
2014	Matthew Haffner (M.S., Geography, July 2014) Thesis: <i>Measuring Social Interaction Potential in Oklahoma City and Tulsa</i>
2013.	Leonard Bombom (Ph.D., Geography, December 2013) Dissertation: <i>Deciphering Activity Patterns Using the Time-geography Framework: A Case Study of Oklahoma State University, Stillwater Campus</i>
2013.	Scott Kusselson (M.S., Geography, December 2013) Thesis: <i>Investigating How Land Use Patterns Affect Traffic Accident Rates near Frontage Road Cross-sections: A Case Study on Interstate 610 in Houston, Texas</i>
2012.	Matt Flynn (M.S., International Studies, May 2012) Creative Component Project: <i>Kendall-Whittier on the Go! and The Tulsa Hub</i>
2011.	Yun Zhao (M.S., Geography, December 2011) Thesis: <i>Assessing the Impact of Potential Bridge Collapse on Road Network Vulnerability: A Case Study in Oklahoma</i>
2009.	Jinjue Dong (M.S., Geography, December 2009) Creative Component Project: <i>Visualizing Property Related Crimes in the City of Houston on Google Earth</i>

2008. Kim Stapleton (M.S., Geography, May 2008)  
Thesis: *Using GIS to Incorporate Population Characteristics in  
Exploration of Potential Radioactive Waste Routes in Oklahoma*
2007. Sowjanya Sunkara (M.S., Computer Science, August 2007, co-advisor)  
Thesis: *An Efficient Indexing Structure for Trajectories in Geographical  
Information Systems*

**Membership on Committees (Oklahoma State University):**

- In progress. Ofuje Amune (Ph.D., Geography)  
In progress. Sean Thomas (Ph.D., Geography)  
In progress. Fernanda Ramirez Saenz (Ph.D., Geography)  
2021. Yanxia Wu (Ph.D., Geography, August 2021)  
2020. Kellen Bullock (M.S., Geography, December 2020)  
2019. Alex Temes (M.S., Fire & Emergency Management Administration,  
December 2019)  
2014. Victoria Lightfoot (Ph.D., Geography, May 2014)  
2013. Weidan Zhou (M.S., Statistics, December 2013)  
2011. Chun Zhu (Ph.D., Electrical and Computer Engineering, December 2011)  
2009. Alston Hicks (M.S., Geography, December 2009)  
2008. Majunu Seran (M.S., Geography, December 2008)  
2008. Balaji Pannerselvam (M.S., Geography, August 2008)  
2007. Brad Watkins (Ph.D., Geography, August 2007)  
2006. Jeremy Odenwald (M.S., Geography, December 2006)