

## Curriculum Vitae Hyun Kim

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### EDUCATION

**The Ohio State University, Columbus, Ohio** **2002-2008**

Ph.D. in Geography

Dissertation: *"Reliable p-hub location problems and protection models for hub network design"*

Advisor: Dr. Morton E. O'Kelly

**Seoul National University, Seoul, South Korea** **1999-2001**

Master of Arts in Geography

Thesis: *"The spatial structure and characteristics of Internet information flows in Korea"*

Advisor: Dr. Wookung Huh

**Seoul National University, Seoul, South Korea** **1993-1999**

Bachelor of Arts in Geography (highest honors, *Summa Cum Laude*)

### EMPLOYMENT

2011-present	Assistant Professor, Department of Geography, University of Tennessee, Knoxville, TN.
2008-2011	Full-time Instructor and Program Director of GIS Certificate Program, Department of Geography, Environment, and Planning, University of South Florida, Tampa, FL.
2007-2008	Graduate Research Associate, Center for Urban and Regional Analysis (CURA), Institute for Population Research (IPR), The Ohio State University, Columbus, OH.
2004-2007	Graduate Teaching Associate, Department of Geography, The Ohio State University, Columbus, OH.
2003-2004	Graduate Research Associate, Department of Geography, The Ohio State University, Columbus, OH.
2001-2002	GIS Analyst and Research Scientist, Science & Technology Policy Institute (STEPI), Seoul, South Korea.
1999-2001	Graduate Research Associate, College of Social Science, Seoul National University, Seoul, South Korea.
1999-2000	Visiting Research Scientist, Korea Institute for Industrial Economics & Trade (KIET), Seoul, South Korea.
1997-1998	Assistant System Administrator, College of Social Science, Seoul National University, Seoul, South Korea.

## RESEARCH INTERESTS

- **Geography of Transportation and Telecommunications**
  - Spatial optimization for transportation and telecommunications
  - Reliability and vulnerability of spatial network systems
  - Hazards, disasters and critical infrastructure
  - Transportation policy
- **Geographic Information Science (GIS)**
  - GIS for location problems
  - Socio-economic applications of GIS
  - GIS for Big Data
- **Health, Crime and Urban Geography**
  - Health disparity and accessibility
  - Urban crime analysis

## RESEARCH PUBLICATIONS

### **A. Refereed Journal articles**

**Note:** † Corresponding author. \*Graduate student co-authors, \*\*Undergraduate student,

- [30] 2016 Ye, H\*, and **H. Kim**†, “Locating health care facilities using a network-based covering location problem”, *GeoJournal* (accepted).
- [29] 2016 Kim, K, Y. Chun, and **H. Kim**† “Location optimization for detecting spatial clusters with covering approach”, *Geographical Analysis* (forthcoming).
- [28] 2016 Ye, H\*, S. Lee, and **H. Kim**, “Effect of neighborhood characteristics on length of inpatient stay: Findings from the U.S. national data”, *Social Work Research* (doi:10.1093/swr/svw004)  
<http://swr.oxfordjournals.org/content/early/2016/03/28/swr.svw004.full.pdf+html>
- [27] 2016 **Kim, H**†, C. Kim, and Y. Chun, “Network reliability and resilience of rapid transit systems”, *The Professional Geographer*, 68(1), 53-65.  
<http://www.tandfonline.com/doi/abs/10.1080/00330124.2015.1028299>
- [26] 2016 Kim, K, D. Dean, **H. Kim**, and Y. Chun, “Spatial optimization for regionalization problems with spatial interaction: a heuristic approach”, *International Journal of Geographic Information Science*, 30(3), 451-473.  
<http://www.tandfonline.com/doi/full/10.1080/13658816.2015.1031671>
- [25] 2016 Ayers, D\*\*, and **H. Kim**, “Using GIS to assist in social impact assessments at military installations”, *Pursuit*, 7(1), Article 4.
- [24] 2015 **Kim, H**, and Y. Song, “Examining accessibility and reliability in the evolution of subway systems”, *Journal of Public Transportation*, 18(3), 89-106.  
<http://scholarcommons.usf.edu/jpt/vol18/iss3/6/>
- [23] 2015 Ye, H\*, and **H. Kim**†, “Analyzing the spatial pattern of primary care physician locations in Hillsborough County, Florida”, *Papers in Applied Geography*, 1(1), 79-85.  
<http://www.tandfonline.com/doi/full/10.1080/23754931.2015.1009324>

- [22] 2015 **Kim, H.** Y. Chun, and K. Kim, "Delimitation of functional regions using a  $p$ -regions problem approach", *International Regional Science Review*, 38(3), 235-263.  
<http://irx.sagepub.com/content/38/3/235>
- [21] 2015 Song, Y, and **H. Kim**, "Evolution of subway network systems, transport accessibility and change of urban landscape: a longitudinal approach", *International Journal of Applied Geospatial Research*, 6(2), 54-77.  
<http://www.irma-international.org/journal/international-journal-applied-geospatial-research/1138/>
- [20] 2014 Ye, H\* and **H. Kim**, "Measuring spatial health disparity using a network based accessibility index method in a GIS environment: a case study of Hillsborough County, Florida", *International Journal of Geospatial and Environmental Research*, 1(1): Article 2. (The highest downloaded article in the journal)  
<http://dc.uwm.edu/ijger/vol1/iss1/2/>
- [19] 2014 Li, Y\*, and **H. Kim**, "Assessing survivability of the Beijing subway system", *International Journal of Geospatial and Environmental Research*, 1(1): Article 3.  
<http://dc.uwm.edu/ijger/vol1/iss1/3/>
- [18] 2014 Downs, J, M. Horner, R. Loraamm\*, J. Anderson\*, **H. Kim**, and D. Onorato, "Strategically locating wildlife crossing structures for Florida panthers using a maximal covering approach", *Transactions in GIS*, 18(1), 46-65.  
<http://onlinelibrary.wiley.com/doi/10.1111/tgis.12005/abstract>
- [17] 2014 Ryerson, M. S, and **H. Kim**, "The impact of airline mergers and hub reorganization on aviation fuel consumption", *Journal of Cleaner Production*, 85 December, 395-407  
<http://www.sciencedirect.com/science/article/pii/S095965261300886X>
- [16] 2013 Ryerson, M. S, and **H. Kim**, "Integrating airline operational practices into passenger airline hub definition", *Journal of Transport Geography*, 31, 84-93.  
<http://www.sciencedirect.com/science/article/pii/S0966692313001099>
- [15] 2013 Kim, C, and **H. Kim**, "Spatial-temporal analysis of recent air passenger flows", *International Journal of Applied Geospatial Research*, 4(4), 37-57.  
<http://www.igi-global.com/article/spatial-temporal-analysis-of-recent-air-passenger-flows/95193>
- [14] 2012 **Kim, H.**, " $p$ -Hub protection models for survivable hub network design", *Journal of Geographical Systems*, 14(4), 437-461.  
<http://link.springer.com/article/10.1007%2Fs10109-011-0157-5>
- [13] 2012 Chun, Y, **H. Kim**, and C. Kim, "Modeling interregional commodity flows with incorporating network autocorrelation in spatial interaction models: An application of the US interstate commodity flows", *Computers, Environment and Urban Systems*, 36(6), 583-591.  
<http://www.sciencedirect.com/science/article/pii/S0198971512000373>
- [12] 2009 **Kim, H.**, "Geographical analysis on network reliability of public transportation systems: a case study of subway network system in Seoul", *Journal of the Korean Geographical Society*, 48(3), 1-15.  
<http://www.dbpia.co.kr/Journal/ArticleDetail/NODE01215150>

- [11] 2009 **Kim, H<sup>†</sup>**, and M. E. O'Kelly, "Reliable  $p$ -hub location problems in telecommunication networks", *Geographical Analysis*, 41(3), 283-306.  
[http://onlinelibrary.wiley.com/doi/ 10.1111/j.1538-4632.2009.00755.x/full](http://onlinelibrary.wiley.com/doi/10.1111/j.1538-4632.2009.00755.x/full)
- [10] 2009 **Kim, H.**, "Reliable network design and hub location problems", *Journal of the Economic Geographical Society of Korea*, 12(4), 540-556.  
[http://ocean.kisti.re.kr/IS\\_mvpopo210L.do?method=elist&poid=keg1&kojic=GJJRBH](http://ocean.kisti.re.kr/IS_mvpopo210L.do?method=elist&poid=keg1&kojic=GJJRBH)
- [9] 2008 Murray, A.T. and **H. Kim**, "Efficient identification of geographic restrictions in location modeling using GIS", *Letters in Spatial and Resource Sciences*, 1(2-3), 159-169. <http://link.springer.com/article/10.1007%2Fs12076-008-0015-3>
- [8] 2006 O'Kelly, M.E, **H. Kim**, and C. Kim, "Internet reliability with realistic peering" *Environment and Planning B: Planning and Design*, 33(3), 325-343.  
<http://epb.sagepub.com/content/33/3/325.short>
- [7] 2003 Huh, W, and **H. Kim**, "Information flows on the Internet of Korea", *Journal of Urban Technology*, 10(1), 61-88.  
<http://www.tandfonline.com/doi/abs/10.1080/1063073032000086335>
- [6] 2002 Lee, K, D. Han, and **H. Kim**, "Circulative linkages of knowledge activities in innovative cluster", *Studies on Knowledge Management Science*, 3(1), 61-74. Seoul, South Korea.
- [5] 2002 Lee, K, J. Lee, C, Lim, D, Han, and **H. Kim**, "Analysis on the knowledge clusters of Korea", Ministry of Science & Technology, Science and Technology Policy Institute, Seoul, South Korea.
- [4] 2001 **Kim, H.**, "The spatial structure and characteristics of Internet information flows in Korea", *Journal of Geography*, 37, 19-42, Seoul, Korea.
- [3] 2001 **Kim, H.**, "OECD Cluster Focus Group: analysis on the innovative cluster", *Science and Technology Policy*, 11(4), 94-101, Seoul, Korea.
- [2] 2001 **Kim, H.**, "A geographical perspective: innovative and knowledge cluster", *Science and Technology Policy*, Spring, Science and Technology Policy Institute, Seoul, Korea.
- [1] 2001 Hwang, Y.S, J. Lee, and **H. Kim**, "A study on setting directions of R&D investment at the national level", Ministry of Science & Technology, Science and Technology Policy Institute, Seoul, Korea.

## B. Peer-reviewed book chapters

**Note:** \* Graduate student co-authors, † Corresponding author.

- [4] 2016 Kim, K, Y. Chun, and **H. Kim<sup>†</sup>**, "A robust heuristic approach for regionalization problems", *GeoComputational Analysis and Modeling of Regional Systems*, (Eds) Dragicevic, S. and Thill J-C (editors) *Advances in Geographic Information Science Series*. Springer-Verlag: Berlin (in print).
- [3] 2015 **Kim, H.**, and D. Han, "Network analysis", Chapter 2 in (Eds) W. Huh, J. Sohn, and B. Park (editors). *Geography of Networks*, 27-44. Purungil: Seoul (in Korean).

- [2] 2013 **Kim, H.**, Y. Chun, and C. Anderson\*, "Crime scene locations in cases of criminal homicide: spatial crime analysis in a GIS environment", Chapter 8 in (Eds) M. Leitner (editor). *Crime Modeling and Mapping Using Geospatial Technology, Geotechnologies and the Environment* Vol 8, 181-201. Springer-Verlag: Berlin.  
[http://link.springer.com/chapter/10.1007%2F978-94-007-4997-9\\_8](http://link.springer.com/chapter/10.1007%2F978-94-007-4997-9_8)
- [1] 2007 O'Kelly, M.E, and **H. Kim**, "Survivability of commercial backbones with peering: a case study of Korean networks", Chapter 6 in (Eds) A.T. Murray and T.H. Grubestic (editors). *Critical Infrastructure: Reliability and Vulnerability*, Advances in Spatial Science Series, 107-128. Springer-Verlag: Berlin.  
[http://link.springer.com/chapter/10.1007%2F978-3-540-68056-7\\_6](http://link.springer.com/chapter/10.1007%2F978-3-540-68056-7_6)

### C. Encyclopedia entries

- [3] 2016 **Kim, H.**, "Segway", (Eds) S. Sultana, and J. Weber (editors). *Encyclopedia of Minicars, Maglevs, and Mopeds: Modern Modes of Transportation around the World*. ABC-CLIO/Greenwood Press.
- [2] 2016 **Kim, H.**, "Mass rapid transit system (Singapore)", (Eds) S. Sultana, and J. Weber (editors). *Encyclopedia of Minicars, Maglevs, and Mopeds: Modern Modes of Transportation around the World*. ABC-CLIO/Greenwood Press.
- [1] 2016 **Kim, H.**, "Mass rapid transit system (Bangkok)", (Eds) S. Sultana, and J. Weber (editors). *Encyclopedia of Minicars, Maglevs, and Mopeds: Modern Modes of Transportation around the World*. ABC-CLIO/Greenwood Press.

### D. Conference proceedings

**Note:** \*: Graduate student co-authors, †: Corresponding author.

- [4] 2015 **Kim, H†**, Y. Song, "An integrated measure of accessibility and reliability of transit systems", *NECTAR 2015 International Conference on the cluster 6 session Accessibility, resilience and vulnerability*.
- [3] 2014 Ye, H\*, and **H. Kim**, "Analyzing the effect of neighborhood characteristics on the spatial pattern of primary care physician locations in Hillsborough County, Florida, *Proceedings of Papers in Applied Geography* 37, 86-94.
- [2] 2013 **Kim, H†**, and M. S. Ryerson, "Ad-hoc port assignment due to a port outage", *Proceedings of the 2<sup>nd</sup> INFORMS Transportation Science and Logistics (TSL) Society Workshop: Maritime Transportation and Port Logistics*, 83-89.
- [1] 2010 Zeng, B., Y. An, Y. Zhang and **H. Kim**, "A reliable hub-spoke model in transportation systems", *The 4<sup>th</sup> International Symposium on Transportation Network Reliability (INSTR) Conference Proceedings*.

### E. Book translation

- [1] 2012 Chung, S, W. Lee, S. Back, **H. Kim**, J. Lee, K. Choi, and A. Cho, "The cultural landscape: an introduction to human geography", 10<sup>th</sup> Edition by James M. Rubenstein, Prentice Hall (translated in Korean).

## ACADEMIC HONORS AND AWARDS

- 2016 Spring **ABCD Award (Service Above and Beyond the Call of Duty)**, Department of Geography, University of Tennessee.
- 2014 Fall **Quest Scholar of the Week** (<http://quest.utk.edu/2014/hyun-kim/>), University of Tennessee.  
*Note: This award recognizes outstanding faculty for research at University of Tennessee.*
- 2014 Spring Nominee for **Chancellor's Excellence Graduate Mentoring and Advising Award**, University of Tennessee.
- 2013 Summer **Grant Writing Institute (GWI) selected as Summer Boot Camp participant**, University of Tennessee.  
*Note: This award supports my NSF research grant proposals to develop further by visiting the headquarter of NSF in Washington D.C.*
- 2010 Spring **The Dewey Stowers Memorial Faculty Award**, University of South Florida, Tampa, FL.  
*Note: The award recognizes outstanding faculty for innovative teaching at South Florida University with one semester teaching load reduction.*
- 2005 Summer **The PEGS Research Award**, The Ohio State University, Columbus, OH.  
*Note: This research award was presented for selected graduate students to support the publication of their research.*
- 1999 Feb **The Presidential Award**, Seoul National University, Seoul, South Korea.  
*Note: This award was presented for the highest honors in Seoul National University.*

## GRANTS

### **A. Awarded**

- 2016-2017 **Joint Directed Research and Development (JDRD-LDRD)**, Tran, L (PI), **H. Kim** (Co-PI): "Examining the energy-water nexus through the lens of the super network: combining water routing networks with energy production consumption networks", \$49,962 funded by UT-ORNL Science Alliance.
- 2015-2016 **Asian American Quality of Life (AAQoL) Project**, Jang, Y (PI), **H. Kim** (role: Consultant), "Asian American Quality of Life (AAQoL) Survey", \$139,758 funded by The City of Austin.
- 2016-2017 **Teaching for Impact Grants, Kim. H:** "Constructing interactive Geographic Information Systems using mobile GIS units", \$496 funded by Tennessee Teaching and Learning Center (TENNTLC).
- 2015-2020 **Health and Health Disparities (NIA)**, Jang, Y (PI), M. Kim, C. Cubbin, D. Powers, N. Park, D.A. Chiriboga, K. Bernstein, **H. Kim** (role: Consultant), K. Kim, "Limited English proficiency, health, and healthcare in older immigrants", \$1,360,300 funded by the National Institute on Aging (NIA).

- 2013-2014 **US Department of Transportation- Federal Highway Administration (TFHA)**, Shaw, S., A. Kohls, **H. Kim** (role: Co-PI), "Upgrading the Geographic Information System (GIS)", \$360,950 funded by the US. TFHA (DTFH61-13-Q-00050).
- 2013-2014 **Professional Development Award, Kim, H** (role: PI). "Network resilience through ad-hoc hubbing in critical infrastructure", \$4,050 funded by University of Tennessee.
- 2012-2014 **The Lois and Samuel Silberman Fund, the Silberman Faculty Grant Program**, Choi, S (PI), and **H. Kim** (role: Consultant), "Access to healthcare among Asian subgroups in the U.S.: examining the interaction between community- and individual-level characteristics using multilevel modeling", \$20,000 funded by The FAHS-BECK fund for research and experimentation faculty research grant program.
- 2011-2012 **The Lois and Samuel Silberman Fund, the Silberman Faculty Grant Program**, Choi, S (PI), and **H. Kim** (role: Consultant), "Contextual effects of community characteristics on health care behaviors among older foreign-born individuals", \$20,000 funded by The FAHS-BECK fund for research and experimentation faculty research grant program.
- 2012 **The Howard H. Baker Jr. Center for Public Policy Research Grant**, Ryerson, M.S (PI), and **H. Kim** (role: Co-PI), "Reducing transportation network vulnerability", \$19,669 funded by University of Tennessee.
- 2011 **The USF Office of Community Engagement (OCE) STEM Service Learning Faculty Grant, Kim, H** (role: PI), "GPS/GIS approach for sustainable community: Improving accessibility and safety for pedestrian, bicycle, and public transit mode in Temple Terrace", \$1,500 funded by University of South Florida.

### FELLOWSHIPS

- 2006 Summer **Summer Research Fellowship**: awarded to support for the dissertation research and publication, Department of Geography, The Ohio State University.
- 2004 Summer **Summer Research Fellowship**: awarded to support for the dissertation research and publication, Department of Geography, The Ohio State University.
- 2002-2003 **The Ohio State University Fellowship**: awarded for excellent academic achievement among graduate students (full scholarship: one of 61 selected students entered in Graduate School), The Ohio State University.
- 1999-2001 **Woosan Foundation Fellowship**: awarded for excellent academic achievement in the field of Arts and Science, Woosan Foundation, Seoul, South Korea.
- 1996-1998&1993-1994 **University Fellowship**: awarded for excellent academic achievement of undergraduate studies (full scholarship), Seoul National University, Seoul, South Korea.



## RESEARCH AND TEACHING ASSISTANTSHIP

- 2006-2008     **Research Assistantship:** appointed as Research Associate in the Center for Urban and Regional Analysis (CURA) and Institute for Population Research (IPR), The Ohio State University, Columbus, OH.
- 2004-2006     **Teaching Assistantship:** appointed as Teaching Associate, Department of geography, The Ohio State University, Columbus, OH.
- 2003-2004     **The Research Assistantship for SBC Ameritech Faculty Fellowship Project:** awarded from SBC Ameritech Faculty Fellowship.  
Project title: "Network reliability and resilience of hubs in the commercial Internet", Faculty researcher: Dr. M.E. O'Kelly.
- 1999-2001     **The Research Assistantship for Brain Korea 21 Projects:** awarded from the College of Social Science, Seoul National University, Seoul, South Korea.  
Project title: "City networks in South Korea", Faculty Researcher: Dr. Wookung Huh.

## INVITED LECTURES

### International

- 2015     **Kim, H,** "A geographical perspective: risks, hazards, and transportation", Chonnam National University, Interdisciplinary studies colloquium Series, May 29, 2015, Gwangju, South Korea. (role: Invited guest speaker).
- 2013     **Kim, H,** "Vulnerability of critical infrastructure", The KOTI (The Korea Transport Institute) Seminar series, July 24, Ilsan, South Korea. (role: Invited guest speaker).

### Domestic

- 2016     **Kim, H,** "Towards reliable public transportation systems", the Haslam Scholars Program's Faculty Lecture Series, April 15, University of Tennessee. TN. (role: Invited seminar speaker).
- 2016     **Kim, H,** "Transport analysis and GIS", CEE (Civil and Environmental Engineering) Transportation Seminar Series, April 14, University of Tennessee. TN. (role: Invited seminar speaker).
- 2014     **Kim, H,** "Geographical view on transportation network security", Ted Cope (NGIA) visit talk, December 19, University of Tennessee. TN (role: Selective presenter).
- 2012     **Kim, H,** "Vulnerability of hub networks: Spatial analysis and modeling", CEE (Civil and Environmental Engineering) Transportation Seminar Series, November 29, University of Tennessee. TN. (role: Invited seminar speaker).
- 2012     **Kim, H,** "Towards more reliable hub networks: Spatial analysis, modeling, and implication", Oak Ridge National Laboratory Seminar, October, ORNL. TN. (role: Invited guest speaker).
- 2012     **Kim, H,** "Geographic data, spatial analysis, and complexity", CISML (Center for Intelligent Systems and Machine Learning) Seminar Series, April, University of Tennessee, TN. (role: Invited guest speaker).



- 2011 **Kim, H**, "*Toward more reliable transportation systems: Spatial analysis and network design*", GIESN Brownbag Seminar Series, September, University of Cincinnati, OH. (role: Invited guest speaker).
- 2011 **Kim, H**, "*Network reliability of transportation systems: spatial analysis and network design*", March, University of Tennessee in Knoxville, TN. (role: Invited guest speaker).
- 2011 **Kim, H**, "*Survivable network design for telecommunication networks*", March 7, INFORMS Lecture Series, University of South Florida. FL. (role: Invited guest speaker).
- 2010 **Kim, H**, "*Crime scene, spatial analysis, and GIS*", March 30, Geography Senior Colloquium Course Guest Speaker, Department of Geography, Environment, and Planning, University of South Florida. FL. (role: Invited guest speaker).
- 2010 **Kim, H**, "*GIS for transportation: coordinate system, database, and GPS*", Jan 31, CUTR Guest Lecture, Center for Urban Transportation Center (CUTR), University of South Florida. FL. (role: Invited guest speaker).
- 2009 **Kim, H**, "*Network reliability of public transportation systems*", March 30, CUTR Transportation Research Seminar, 2009 (March 30). Center for Urban Transportation Center (CUTR), University of South Florida. FL. (role: Invited guest speaker).
- 2008 **Kim, H**, "*Spatial modeling using GIS for urban crime study*", September, Community Engagement Colloquium, University of South Florida. FL. (role: Invited guest speaker).
- 2008 **Kim, H**, "*Spatial modeling and GIS: location modeling, spatial analysis using GIS*", July, University of South Florida. FL. (role: Invited guest speaker).

#### **PROFESSIONAL CONFERENCES AND MEETINGS**

**Note:** \*: graduate student co-authors, \_\_: presenter.

- 2016 Ye, Q\* and **H. Kim**, "Characteristics of air passenger transport networks: A comparative analysis between China and the United States", *The 112<sup>nd</sup> Association of American Geographers (AAG) Annual meeting*, April 1, 2016, San Francisco, CA.
- 2016 Ye, H\*, and **H. Kim**, "Locating healthcare facilities using a network-based covering location problem", *The 112<sup>nd</sup> Association of American Geographers (AAG) Annual meeting*, March 30, 2016, San Francisco, CA.
- 2016 **Kim, H**, J. Auerbach\*, Q. Ye\*, and H. Ye\*, "Resilience of heavy rail transit networks of United States", *The 112<sup>nd</sup> Association of American Geographers (AAG) Annual meeting*, March 31, 2016, San Francisco, CA.
- 2015 Song, Y, **H. Kim**, and K. Lee, "Equity implications of the subway network expansion in a Metropolitan Area", *The 62<sup>nd</sup> Regional Science Association International (RSAI) 2015 Annual meeting*, November 13, 2015, Portland, OR.
- 2015 **Kim, H**, "Assessing vulnerability of mass transit systems using reliable paths problems", *The 62<sup>nd</sup> Regional Science Association International (RSAI) 2015 Annual meeting*, November 14, 2015, Portland, OR.

- 2015 Song, Y, and **H. Kim**, "Network evolution and the change of its structural characteristics: the case of Seoul Subway System", *Annual Meeting of Korean Geographers*, November 2015, Seoul, South Korea.
- 2015 Ye, H\*, and **H. Kim**, "Locating health care facilities using an alternative covering location problem", *The 111<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 23, 2015, Chicago, IL.
- 2015 **Kim, H**, and Q. Ye\*, "Assessing vulnerability of public transit systems: A reliable paths optimization approach", *The 111<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 22, 2015, Chicago, IL.
- 2015 Ye, Q\*, and **H. Kim**, "Reducing hazards vulnerability of transportation network: A case study with the Amtrak rail system", *The 111<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 21, 2015, Chicago, IL.
- 2014 **Kim, H**, Y. Song, and T. Ahn, "Examining accessibility and reliability with the evolution of subway system in Seoul Metropolitan Area", *The 61<sup>th</sup> Regional Science Association International (RSAI) 2014 Annual meeting*, November 15, 2014, Washington D.C.
- 2014 **Kim, H**, and M. Vanderlan\* "A Geographical perspective: Behavior of hub location in hub network design", *The 110<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 12, 2014, Tampa, FL.
- 2014 Li, Y\*, and **H. Kim**, "Survivability of the Beijing subway system with the completion of an additional subway line", *The 110<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 12, 2014, Tampa, FL.
- 2014 Kim, K, **H. Kim**, and Y. Chun, "A spatial optimization approach for districting housing market areas", *The 110<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 12, 2014, Tampa, FL.
- 2014 Ye, H\*, and **H. Kim**, "Measuring spatial health disparity in a GIS environment: A Case Study of Hillsborough County, FL", *The 110<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 12, 2014, Tampa, FL.
- 2014 Ye, H\*, and **H. Kim**, "Measuring spatial health disparity in a GIS environment", *UT Geography's Inaugural Research Symposium*, February 21, Knoxville, TN.
- 2013 Kim, K, **H. Kim**, and Y. Chun, "Location optimization for detecting p-functional spatial clusters", *The 60<sup>th</sup> Regional Science Association International (RSAI) 2013 Annual meeting*, November 15, 2013, Atlanta. GA.
- 2013 **Kim, H**, "Ad-hoc hub location problem for air transportation networks", *The 60<sup>th</sup> Regional Science Association International (RSAI) 2013 Annual meeting*, November 15, 2013, Atlanta. GA.
- 2013 **Kim, H**, and M. Ryerson, "q-Ad-hoc hub assignment due to hub outages", invited for the session Optimization, Spatial Analysis and GIS of the 2013 *INFORMS Annual meeting*, October 7, 2013, Minneapolis, MN.

- 2013 **Kim, H.** and M. Ryerson, "Evolution of hub hierarchies of passenger airlines of U.S.", *The 109<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 13, 2013, Los Angeles, CA. (Session Chair of Spatial Optimization and Analysis).
- 2013 **Kim, C.** Y. Chun, and **H. Kim**, "An examination of traffic accidents", *The 109<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 9, 2013, Los Angeles, CA.
- 2013 **Kim, K.** Y. Chun, and **H. Kim**, "Location optimization for detecting p-functional spatial clusters", *The 109<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 13, 2013, Los Angeles, CA.
- 2013 **Kim, H.** "Ad-hoc hub location problem for sea port outage", *The 3<sup>rd</sup> KSEA Southeastern Regional Conference (SERC), Geospatial Technology for Our Vulnerable Society*, February 23, 2013, Atlanta, GA.
- 2012 **Kim, K.** Y. Chun, and **H. Kim**, "A heuristic approach for delineating functional regions", *The 59<sup>th</sup> Regional Science Association International (RSAI) 2012 Annual meeting*, November 8, 2012, Ottawa. Canada.
- 2012 **Kim, H.** and Y. Song, "Evolution of an urban massive transit system: Seoul's experience", *The 108<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, February 27, 2012, New York, NY.
- 2012 **Kim, K.** **H. Kim**, and Y. Chun, "Developing a heuristic algorithm for a p-functional regions problem", *The 108<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, February 26, 2012, New York, NY.
- 2012 Kim, C, **H. Kim**, and J. Lee, "Toward a realistic hub network model: Examining differences between theoretical and practical hub locations using empirical air passenger data", *The 108<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, February 27, 2012, New York, NY.
- 2011 **Kim, H.** Y. Chun, and K. Kim, "Districting functional regions using geographical flows", *The 58<sup>th</sup> Regional Science Association International (RSAI) 2011 Annual meeting*, November 11, 2011, Miami. FL.
- 2011 **Kim, H.** Panelist, Establishing identity of geographic features: a special focus on controversies in naming the sea between Korea and Japan, *Panel Session in The 107<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 14, 2011, Seattle, WA.
- 2011 **Kim, H.** "p-Hub protection models: survivable hub network design", *Special Session for Spatial Optimization and GIS, The 107<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 13, 2011, Seattle, WA.
- 2010 **Kim, H.** C. Kim and Y. Chun, "Network reliability and resiliency of rapid transit systems: a case study of the transit system in the greater metropolitan area of Washington D.C.", *The 57<sup>th</sup> Regional Science Association International (RSAI) 2010 Annual meeting*, November 11, 2010, Denver. CO.

- 2010 **Kim, H.**, C. Anderson\*, and Y. Chun, "Crime scene locations in cases of criminal homicide: spatial crime analysis in a GIS environment", *Special Session for Crime mapping and Modeling, The 106<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 15, 2010, Washington D.C.
- 2010 **Kim, C.**, Y. Chun, **H. Kim**, and S. Sang, "Network autocorrelation in modeling commodity flows of the U.S.", *The 106<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 16, 2010, Washington D.C.
- 2009 **Kim, C.**, Y. Chun, and **H. Kim**, "Modeling the spatio-temporal structure of traffic accident: link-based analysis", *The 56<sup>th</sup> Regional Science Association International (RSAI) 2009 Annual meeting*, San Francisco, CA.
- 2009 **Kim, H.**, "Network reliability of public transportation systems: a case study of Korean subway networks", *Special Session for Critical Infrastructure, The 105<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, March 16, 2009, Las Vegas, NV.
- 2008 **Kim, H.**, "Multi-objective hub location models for reliable network design", *The 104<sup>th</sup> Association of American Geographers (AAG) Annual meeting*, April 16, 2008, Boston, MA.
- 2007 **Kim, H.**, and M. E. O'Kelly, "*p*-Hub protection models for survivable network design", 2007, *The 103<sup>rd</sup> Association of American Geographers (AAG) Annual meeting*, April 20, 2007, San Francisco, CA.
- 2006 **Kim, H.**, and M. E. O'Kelly, "*p*-Hub dispersion models for reliable design in telecommunication network", *Regional Science Association International (RSAI) 2006 Annual meeting*, November, 2006, Toronto, Canada.
- 2006 **Kim, H.**, and M. E. O'Kelly, "*p*-Hub dispersion model of telecommunication network", *The 102<sup>nd</sup> Association of American Geographers (AAG) Annual meeting*, March 11, 2006, Chicago, IL. (Chair of Session: Spatial Analysis of Human Dimensions).
- 2005 **Kim, H.**, and M. E. O'Kelly, "Enhancing the network performance of the commercial Internet", *101<sup>st</sup> The Association of American Geographers (AAG) Annual meeting*, April 5, 2005, Denver, CO.
- 2004 **Kim, H.**, and M E. O'Kelly, "Survivability of commercial backbones with peering: a case study of Korean networks", *Regional Science Association International (RSAI) 2004 Annual meeting*, Seattle, WA.
- 2004 **O'Kelly, M.E.**, **H. Kim**, and C. Kim, "Network analysis for resilience and survivability", *Regional Science Association International British and Irish Section*, August 20, 2004, Cork, Ireland.
- 2004 Kim, C, M. E. O'Kelly, and **H. Kim**, "Internet backbone network design", *The 101<sup>st</sup> Association of American Geographers (AAG) Annual meeting*, March 19, 2004, Philadelphia, PA.
- 2004 **Kim, H.**, M.E. O'Kelly, and C. Kim, "Network reliability and resilience of hubs in the commercial Internet", *The 101<sup>st</sup> Association of American Geographers (AAG) Annual meeting*, March 19, 2004, Philadelphia, PA.

- 2001 Huh, W, and **H. Kim**, "Information flows on the Internet of Korea" paper presented at *Digital Communities 2001: Cities in the Information Society Conference*, November 4-6, 2001, Chicago, IL.
- 2001 **Kim, H**, "Spatial structure and characteristics of information flows on the Internet" paper presented at *The Korean Geographical Society (KGS)*, May 2001, Kongju, South Korea.

## **TEACHING**

### ***Department of Geography, University of Tennessee (2011-present)***

- **GEOG411:** Introduction to GIS (Fall 2012, Fall 2013, Spring 2014, Fall 2014)
- **GEOG449:** Geography of Transportation (Fall 2012, Fall 2013, Spring 2015, Spring 2016)
- **GEOG495:** Special Topics in Geography: Spatial analysis and GIS for urban issues (Spring 2012)
- **GEOG501:** Colloquium in Geography (Spring 2015)
- **GEOG506:** Direct Readings (Summer 2012, Spring 2013, Fall 2013, Spring 2014, Summer 2014, Fall 2014)
- **GEOG509:** Topics in Geography: Fundamentals of location analysis and modeling (Fall 2011)
- **GEOG509:** Topics in Geography: GIS for socio-economic problems (Spring 2014, Spring 2016)
- **GEOG517:** Geographic Information Management and Processing (Spring 2012, Spring 2013, Spring 2015)
- **GEOG549:** Topics in the Geography of Transportation (Fall 2015)
- **GEOG649:** Seminar in Transportation Geography (Fall 2014)

### ***Department of Geography, Environment, and Planning, University of South Florida (2008-2011)***

- **GIS5049:** GIS for non-majors (Fall 2008-10, Spring 2009-11, Summer 2009-11)
- **GIS5075:** Global Positioning Systems (Fall 2008-10, Summer 2009-11)
- **GIS6307:** Socio-economic applications for GIS (Spring 2010-11)
- **CGN6933:** GIS in Transportation (2009 Spring, Guest lecture)

### ***Department of Geography, Ohio State University (2005-2007)***

- **Geography120:** Earth System II: Atmospheric Environment (Winter 2007, Fall 2006)
- **Geography200:** World Regional Geography (Spring 2005-6, Winter 2005-6, Fall 2004-5)
- **Geography645:** Geography of Transportation (Spring 2007)

## **PROFESSIONAL ACTIVITIES & SERVICE**

### **A. International/National levels**

- 2014-2016 Board Member (elected), Transportation Geography Specialty Group (TGSG) of *Association of American Geographers (AAG)*
- 2002-present Member, Spatial Analysis and Modeling (SAM) Specialty Group of *Association of American Geographers (AAG)*

- 2014-present Board Member (elected), *Korean-American Association for Geospatial and Environmental Sciences* (KAGES)
- 2014-present News Letter Editor (elected), *Korean-American Association for Geospatial and Environmental Sciences* (KAGES)
- 2013-present Editorial Board Member (elected), *The Korean Association of Professional Geographers*
- 2011-2013 SEDAAG Program Committee, South East Division of AAG
- 2009-2010 Member, Scholarship Grant Review Committee, Pixoneer Scholarship Awards, *Korean-American Association for Geospatial and Environmental Sciences*

## **B. University/College/Department levels**

### ***University of Tennessee (2011-present)***

#### Departmental Service

- 2016 Spring Member, GIS Coordinator Search Committee, Department of Geography
- 2016 Spring Member, GIS Faculty Search Committee, Department of Geography
- 2015 Spring Visiting Speakers/Colloquium 501 Coordinator, Department of Geography
- 2014-present Member (elected), Executive Committee, Department of Geography
- 2014-present Member (elected), Award Committee, Department of Geography
- 2013-present Chair, Technology/Tech Fee Committee, Department of Geography
- 2014-present Member, Graduate Admission Committee (GAC), Department of Geography
- 2011-present Computer labs administrator, Department of Geography
- 2012-2014 Member, Web/Social Media Committee, Department of Geography
- 2011-2014 Member, Undergraduate Program Committee, Department of Geography

#### College Service

- 2015-present The Faculty Senate (elected), College of Arts and Sciences, University of Tennessee
2016. April Big Orange Family Campaign Volunteers

#### University Service

- 2016 Member, Review Committee, Chancellor's Awards of Excellence in Teaching
- 2014-present Member, Baker Center Global Security Programming Committee, Howard H. Baker Center

### ***University of South Florida (2008-2011)***

#### Departmental Service

- 2011 July Faculty Search Committee for GIS, Department of Geography
- 2008-2011 Chair, GIS Committee, Department of Geography
- 2009 February Member, Student Travel Grants Review Committee, Department of Geography
- 2008 August Member, Faculty Search Committee for Urban Planning, Department of Geography

University Service

2009 November Organizer, USF Graduate & Professionals Recruitment Fair, University of South Florida

*Ohio State University (2002-2008)*Departmental Service

2008 April      Presentation Assistant, Graduate Student Recruitment, Department of Geography

2006 May      Professional Graphic Assistant, the Presidents Salute to Undergraduate Academic Achievement, Department of Geography

2004-2005      Graduate Student Representative, Department of Geography

**C. Conferences Organization**

2000. Aug      Assistant session coordinator for International Geographical Union (IGU) Annul Conference, Seoul, South Korea.

2000 July-Aug Assistant coordinator for International Geographical Union (IGU) commission on Communication Networks and Telecommunication, Annul Conference and Pre-Congress Meeting, Kwangju, South Korea.

**D. Continuing Education Activities**

2014 June      OIT Security Awareness Training, University of Tennessee.

2011 Summer   Grant Writing and Proposal Development Certificate program, University of Tennessee (taken 5 courses).

2011 Fall      New Faculty Orientation for Research (3 sessions).

GRADUATE SUPERVISION*University of Tennessee (2011-present)*Major Advisor (3 doctoral and 2 master students)**Ph.D. (graduated)**

- Huaiyen Ye, Ph.D. Geography, University of Tennessee (Graduated 2016 Spring, Senior Geospatial Statistician, Location, Inc.)

**Ph.D. (in progress)**

- Qian Ye, Geography, University of Tennessee (Fall 2014-in progress)
- Jeremy Auerbach, Geography, University of Tennessee (Fall 2015-in progress)

**M. S. (graduated)**

- Robert Taylor, Geography, University of Tennessee (2016 Spring, GIS-T Researcher at University of Tennessee Transportation Center)
- Yan Li, Geography, University of Tennessee (2014 Summer, currently Ph.D program at Univ. of Minnesota)



**Committee Member** (6 doctoral and 3 master students' committees)**Ph.D. (graduated)**

- Gengen He, Geography, University of Tennessee (Graduated, 2016 Assistant Professor career in the School of Geographical Sciences at University of Nottingham Ningbo China)
- Yang Xu, Geography, University of Tennessee (Graduated, 2015, Post-doctoral position at the Sensible City Lab of MIT)
- Ziliang Zhao, Ph.D. Geography, University of Tennessee (Graduated, 2015, Amazon)

**Ph.D. (in progress)**

- Sandhya Nepal, Geography, University of Tennessee (2014-in progress)
- Jiaoli Chen, Geography, University of Tennessee (2012- in progress)
- Michael Vanderlan, Ph.D. Geography, University of Tennessee (2010-in progress)

**M. S. (graduated)**

- Kelly Sims, M.S. Geography, University of Tennessee (graduated 2014 Winter, ORNL)
- Yicong Zhong, M.S. Geography, University of Tennessee (graduated 2014 Winter)
- Yuan Liu, M.S. Geography, University of Tennessee (graduated 2014 Winter, ESRI)

***University of South Florida (2008-2011)*****Committee Member** (1 doctoral and 5 master students' committees)**Ph.D. (graduated)**

- Sean Barbeau, Computer Science, University of South Florida (2012 Summer, CUTR senior researcher)

**M. S. (graduated)**

- Tyler Hoffmann, Geography, University of South Florida (graduated, 2010)
- Casey C. Anderson, Anthropology, University of South Florida (graduated, 2009)
- Geoffery Fouad, Geography, University of South Florida (graduated, 2009)
- Ariana Tatum, Geography, University of South Florida (graduated, 2009)
- Clay Smithers, Geography, University of South Florida (graduated, 2009)

**UNDERGRADUATE RESEARCH SUPERVISION**

- Darcy Ayers, Anthropology, University of Tennessee.

**Note:** Darcy Ayers was the winner of the 2015 Summer Undergraduate Internship from Office of Undergraduate Research (2015) under my supervision.

**PROFESSIONAL REVIEW SERVICE****A. Grant Peer Research Reviews**

2015 NSF grant proposal review for the Geography and Spatial Science (GSS) Program

2014 NSF grant proposal review for the Methodology, Measurement, and Statistics (MMS) Program

**B. Journal review services** (\*indicates SCI/SSCI journals)

*Annals of the Association of American Geographers\** (2009, 2010, 2014)

*Applied Mathematical Modelling\** (2011)

*Areas\** (2013)

*Computers & Industrial Engineering* (2014)

*Crime Modeling and Mapping Using Geospatial Technology* (2011)

*European Journal of Operational Research\** (2013, 2014, 2015)

*Geographical Analysis\** (2008, 2009, 2012, 2013 (3), 2014(2))

*GeoJournal* (2010, 2014)

*ICCCT Telecommunications Systems* (2012)

*International Journal of Applied Geospatial Research* (2011)

*International Journal of Geographic Information Science* (2016)

*Journal of Advanced Transportation\** (2015, 2016)

*Journal of Geographical Systems\** (2010(2), 2016)

*Journal of the Economic Geographical Society of Korea* (2014)

*Journal of the Korean Cartographic Association* (2013, 2015)

*Journal of the Korean Geographical Society* (2014)

*Journal of Transport Economics and Policy\** (2011, 2012)

*Journal of Transport Geography\** (2014(3), 2015(3))

*Multimedia Tools and Applications\** (2013, 2014)

*Social Science & Medicine\** (2014(2))

*Spatial and Spatio-Temporal Epidemiology* (2009)

*Telematics and Informatics* (2011)

*The Korean Association of Professional Geographers* (2013)

*The KSCE Journal of Civil Engineering\** (2013(2))

*Transactions in GIS\** (2012, 2013(3), 2014, 2015)

*Transportation\** (2016)

*Transportation Research E\** (2010, 2013)

*Transportation Science\** (2014, 2015)

**PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS**

2013-present	Institute for Operations Research and the Management Science (INFORMS)
2011-present	Korean-American Scientists and Engineers Association (KSEA)
2009-present	South Eastern Division of the Association of American Geographers (SEDAAG)
2009-present	Korean-American Association for Geospatial and Environmental Sciences (KAGES)
2008-present	Florida Society of Geographers (FSG)

2004-present    Regional Science Association International (RSAI)  
2002-present    The Association of American Geographers (AAG)  
1999-present    The Korean Geographical Society (KGS)

**SOFTWARE PROFICIENCIES**

**GIS Software:** ArcGIS, TRANSCAD

**GPS Units:** GARMIN GPS device series, Trimble SE, TRACT-IT (Mobile GPS), ArcPad

**Programming Languages:** Visual Basic, ArcObject, FORTRAN, C, Pythons

**Optimization Software:** CPLEX, LINGO, GAMS

**Statistics Software:** SPSS, R

(Last updated on 5/20/2016)