

Kisung You

B02 Hayes-Healy Center
Notre Dame, IN 46556
kyou@nd.edu
kyou.io

RESEARCH INTEREST	Statistical methods on manifolds, Large-scale optimization on manifolds with divide-and-conquer strategies, Applications to neuroimaging analysis.	
EDUCATION	<p><i>Ph.D.</i>, Statistics August 2016 - Current Department of Applied and Computational Mathematics and Statistics University of Notre Dame, USA</p> <ul style="list-style-type: none">• Advisor: Prof. Lizhen Lin, Prof. Ick Hoon Jin• Research Area: Statistics on Riemannian Manifolds, Markov chain Monte Carlo methods, Bayesian Methods in Machine Learning and Network Analysis, Applications in Neuroimaging <p><i>M.S.</i>, Mathematics August 2015 Department of Computational Science and Engineering Yonsei University, Seoul, South Korea</p> <ul style="list-style-type: none">• Advisor: Prof. Yoon Mo Jung• Thesis: <i>Convergence of Empirical Intensity CDF and Texture Classification</i> <p><i>B.S.</i>, Mathematics August 2013 <i>B.A.</i>, Business Administration Yonsei University, Seoul, South Korea</p>	
FELLOWSHIPS & AWARDS	<ul style="list-style-type: none">• Marilyn Jane Navari Fellowship, University of Notre Dame• Navari Fellowship, University of Notre Dame• Brain Korea 21 Scholarship National Research Foundation of Korea	<p>2017 - 2018</p> <p>2016 - 2017</p> <p>2013 - 2015</p>
PUBLICATIONS	<p>[1] J. H. Park, E-J. Kwak, K. You, Y-S. Jung, and H-D. Jung. (2019). Volume change pattern of decompression of mandibular odontogenic keratocyst. <i>Maxillofacial Plastic and Reconstructive Surgery</i>. 41:2.</p> <p>[2] Y.J. Cha, K. You, and W. Choi. (2016). Vision-based detection of loosened bolts using the Hough transforms and support vector machines. <i>Automation in Construction</i>. 71(2): 181-188.</p>	
PREPRINTS	<p>[i] D. Bao, K. You, and L. Lin. Network Distance Based on Laplacian Flows on Graphs. <i>arXiv:1810.02906</i></p> <p>[ii] I.H. Jin, F. Liu, E.C. Eugenio, K. You, and Y. Yuan. Bayesian Hierarchical Spatial Model for Small Area Estimation with Non-ignorable Nonresponses and Its Applications to the NHANES Dental Caries Assessments. <i>arXiv:1810.05297</i></p>	

PRESENTATIONS

(► Poster presentation; ▷ Contributed talk.)

- MNET 2.0: Big Graphical Mining of Multimodal Brain Networks. NetSci 2016. *Seoul, South Korea*, 06/2016.
- Reusability of deep neural network for human functional networks. NetSci 2016. *Seoul, South Korea*, 06/2016.
- Low-dimensional representation of human brain networks with modularity-based proximity of large-scale functional graphs. NetSci 2016. *Seoul, South Korea*, 06/2016.
- ▷ Convergence of Empirical Intensity CDF and Texture Classification. KSIAM 2015 Spring Conference. *Suwon, South Korea*, 05/2015

SOFTWARE

(• in R on CRAN)

- ADMM Algorithms using Alternating Direction Method of Multipliers.
- carfima Continuous-Time Fractionally Integrated ARMA Process for Irregularly Spaced Long-Memory Time Series Data.
- CovTools Geometrical and Statistical Tools for Covariance Analysis.
- filling Matrix Completion, Imputation, and Inpainting Methods.
- graphon A collection of graphon estimation methods.
- mclustcomp Measures for comparing partitions of sets.
- NetworkDistance Distance Measures for Networks.
- Rdimtools Dimension reduction and estimation methods.
- RiemBase Functions and C++ Header Files for Computation on Manifolds.
- Rlinsolve Fast Iterative solvers for (sparse) linear system of equations.
- ROptSpace Matrix Completion from a partially observed matrix.
- tvR Total Variation Regularization for Signals and Images.
- SAMCpack Stochastic Approximation Monte Carlo Sampler and Methods.
- Zseq Integer Sequence Generator.

TEACHING EXPERIENCE

Instructor Fall 2017 – Current
University of Notre Dame, USA
 • Statistical Methods and Data Analysis Lab (Fall 2017 - Current)

Teaching Assistant Fall 2016 – Summer 2017
University of Notre Dame, USA
 • Systems and Technology: R (Summer 2017)
 • Probability and Statistics for Data Science (Summer 2017)
 • Statistics for the Life Sciences (Spring 2017)
 • Statistics for Business and Economics I (Fall 2016)

REFERENCES

Dr. Lizhen Lin
 Assistant Professor
 Department of ACMS
 University of Notre Dame
 Notre Dame 46445, USA
 ☎ +1 574 631 0301
 ✉ lizhen.lin@nd.edu

Dr. Ick Hoon Jin
 Assistant Professor
 Department of ACMS
 University of Notre Dame
 Notre Dame 46445, USA
 ☎ +1 574 631 2741
 ✉ IckHoon.Jin.32@nd.edu