

Song-Hee Kim

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EMPLOYMENT

Marshall School of Business, University of Southern California, Los Angeles, CA
Assistant Professor of Data Sciences and Operations, 2015-Present

Yale School of Management, New Haven, CT
Postdoctoral Associate in Operations Management, 2014-2015

EDUCATION

Columbia University, New York, NY
Ph.D., Operations Research, 2014
Dissertation: *Data-Driven Decisions in Service Systems*
Advisors: Professors Ward Whitt, Carri W. Chan, and Marcelo Olivares
M.S., Operations Research, 2009

Cornell University, Ithaca, NY
B.S., *magna cum laude*, Operations Research and Industrial Engineering, 2008

RESEARCH INTERESTS

Making data-driven decisions within service systems with an emphasis on problems related to healthcare delivery
Empirical/Statistical Analysis, Stochastic Modeling, Queueing Theory, Dynamic Programming

PUBLICATIONS

1. Kim, S.-H., Whitt, W., & Cha, W.C. A Data-Driven Model of an Appointment-Generated Arrival Process at an Outpatient Clinic, *INFORMS Journal on Computing*, forthcoming.
2. Kim, S.-H., Chan, C.W., Olivares, M., & Escobar, G. 2016. Association Among ICU Congestion, ICU Admission Decision, and Patient Outcomes, *Critical Care Medicine*, 44(10), 1814-1821.
Feature Article
3. Kim, S.-H., Vel, P., Whitt, W., & Cha, W.C. 2015. Poisson and Non-Poisson Properties in Appointment-Generated Arrival Processes: the Case of an Endocrinology Clinic, *Operations Research Letters*, 43, 247–253.

4. Kim, S.-H. & Whitt, W. 2015. The Power of Alternative Kolmogorov-Smirnov Tests Based on Transformations of Data, *ACM Transactions on Modeling and Computer Simulation (TOMACS)*, 24(4), article 24.
5. Kim, S.-H., Chan, C.W., Olivares, M., & Escobar, G. 2015. Intensive Care Unit Admission Control: An Empirical Study of Capacity Allocation and its Implication on Patient Outcomes, *Management Science*, 61(1), 19–38.
First Prize for 2013 M&SOM Student Paper Competition *Finalist for 2013 INFORMS Health Applications Society Student Paper Competition* *Finalist for 2013 INFORMS Pierskalla Award*
6. Kim, S.-H. & Whitt, W. 2014. Are Call Center and Hospital Arrivals Well Modeled by Nonhomogeneous Poisson Processes?, *Manufacturing and Service Operations Management*, 16(3), 464–480.
Finalist for 2016 M&SOM Best Paper Award *Finalist for 2017 M&SOM Best Paper Award*
7. Kim, S.-H. & Whitt, W. 2014. Choosing Arrival Process Models for Service Systems: Tests of a Nonhomogeneous Poisson Process, *Naval Research Logistics*, 61(1), 66–90.
8. Kim, S.-H. & Whitt, W. Using Simulation to Study Statistical Tests for Arrival Processes and Service Time Models for Service Systems, *Proceedings of the 2013 Winter Simulation Conference*, R. Pasupathy, S.-H. Kim, A. Tolk, R. Hill, and M. E. Kuhl, eds., Washington, D.C.
9. Kim, S.-H. & Whitt, W. 2013. Estimating Waiting Times with the Time-Varying Little’s Law. *Probability in the Engineering and Informational Sciences*, 27(4), 471–506.
10. Kim, S.-H. & Whitt, W. 2013. Statistical Analysis with Little’s Law. *Operations Research*, 61(4), 1030–1045.

ABSTRACT

1. Kumar, S.I., Kim, S.-H., Winnie, K., Cobb, J.P. & Brown, J. Pilot Implementation of a novel ICU Admission, Discharge, Triage Tool at an Academic Medical Center. *American Thoracic Society (ATS) International Conference*. Poster presentation. Washington, DC, May 2017.

WORKING PAPERS

1. Gupta, V., Han, B.R., Kim, S.-H., & Paek, H. Maximizing Intervention Effectiveness.
2. Bartel, A., Chan, C.W., & Kim, S.-H. Should Hospitals Keep Their Patients Longer? The Role of Inpatient Care in Reducing Post-Discharge Mortality.
3. Kim, S.-H., Pinker, E., Rimar, J., & Bradley, E. Refining workload measure in hospital units: From census to acuity-adjusted census in intensive care units.

HONORS AND AWARDS

M&SOM Best Paper Award (Finalist), 2017
 Management Science Meritorious Service Award, 2016
 M&SOM Best Paper Award (Finalist), 2016
 INFORMS Pierskalla Award (Finalist), 2013

M&SOM Student Paper Competition (First Prize), 2013
INFORMS Health Applications Society Student Paper Competition (Finalist), 2013
Samsung Scholarship (full tuition and stipend), 2008-2013
Deming Doctoral Research Fellowship, The W. Edwards Deming Center at Columbia Business School, 2011
Accelerated Bachelor's Degree Completion (3 years) at Cornell University, 2005-2008
Member of Tau Beta Pi (Engineering Honor Society)
Member of the Cornell Chapter of Omega Rho (Operations Research & Management Science Honor Society)

TEACHING EXPERIENCE

USC Marshall School of Business:

Operations Management, Undergraduate core, Spring 2017 (half-term). (4.39, 4.22, 4.46, 4.63/5.00)
Operations Management, Undergraduate core, Spring 2016. (4.67, 4.23/5.00)

Teaching Assistant, Columbia University:

Service Engineering, MS/BS elective, Spring 2013. (4.9/5.0)
Service Engineering, MS/BS elective, Spring 2012. (5.0/5.0)
Dynamic Pricing and Revenue Management, MS elective, Spring 2011. (4.5/5.0)
Simulation, MS/BS core, Fall 2009. (Evaluation not collected)

*Average evaluation score in parentheses

PROFESSIONAL ACTIVITIES AND SERVICE

Research Collaborations with Industry Partners:

- Kaiser Permanente, Oakland, CA, 2010-2014
- Samsung Medical Center, Seoul, South Korea, 2012-present
- Yale New Haven Hospital, New Haven, CT, 2014-present
- Keck Hospital of USC, Los Angeles, CA, 2015-present

Technical Reviewer: Management Science, Manufacturing & Service Operations Management (M&SOM), Operations Research, Production and Operations Management, INFORMS Journal on Computing, Naval Research Logistics, Annals of Operations Research, Flexible Services and Manufacturing

Judge: M&SOM Service SIG Workshop (2015), M&SOM Healthcare SIG Workshop (2016), INFORMS Health Application Society Student Paper Competition (2015), M&SOM Student Paper Competition (2014, 2015, 2016, 2017), POMS College of Healthcare Operations Management (CHOM) Best Paper Competition (2016), Pier-skalla Best Paper Award (2017)

Conference Session Chair: INFORMS Annual Meeting 2016 ("Empirical Studies in Healthcare OM", "Dealing with Uncertainty in Hospital Operations" co-chaired with Tinglong Dai, "Joint Session APS/MSOM: Service Systems in Applied Probability I"), POMS Annual Conference 2017 ("Operating Room Scheduling"), INFORMS Annual Meeting 2017 ("Healthcare/Service Systems in Applied Probability", "Behavioral, Incentive and Policy Issues in Healthcare" co-chaired with Tinglong Dai)

INVITED TALKS AND CONFERENCE PRESENTATIONS

- 2017 School of Business Administration, University of Miami
School of Management, University College London
21st Applied Probability Day: Honoring Ward Whitt, New York, NY
POMS Annual Conference, Seattle, WA
SoCal OR/OM Day, Los Angeles, CA
Young Scholars Workshop, 12th Annual Behavioral Operations Conference, Cambridge, MA
- 2016 POMS Annual Conference, Orlando, FL
USC Schaeffer Center Brown Bag Seminar, Los Angeles, CA
DSO Graduate Research Forum, USC Marshall, Los Angeles, CA
Young European Queueing Theorists Workshop (YEQT), Eindhoven, Netherlands
INFORMS Annual Meeting, Nashville, TN
- 2015 The Sixth POMS-Hong Kong International Conference, Guangzhou, China
Department of Industrial and Systems Engineering, North Carolina State University
MSOM Healthcare Special Interest Group (SIG) Conference, Toronto, Canada
Healthcare INFORMS Meeting, Nashville, TN
The Joint Statistical Meetings (JSM), Seattle, WA
Dr. Shinyi Wu's Group Meeting, USC, Los Angeles, CA
INFORMS Annual Meeting, Philadelphia, PA
USC Electrical Engineering Department Seminar, Los Angeles, CA
- 2014 Wisconsin School of Business, University of Wisconsin-Madison
Marshall School of Business, University of Southern California
Harvard Business School, Harvard University
London Business School
Stern School of Business, New York University
Yale School of Management, Yale University
Kelley School of Business, Indiana University
Department of Industrial and Operations Engineering, University of Michigan
Guest lecture for *Service Operations* (PhD course) at NYU Stern School of Business
Guest lecture for IEOR 4505 *Operations Research in Public Policy* at Columbia University
POMS Annual Conference, Atlanta, GA
INFORMS Annual Meeting, San Francisco, CA
- 2013 Department of Industrial Engineering and Operations Research, University of California at Berkeley
Guest lecture for IEOR 4615 *Service Engineering* at Columbia University
Guest lecture for IEOR 4505 *Operations Research in Public Policy* at Columbia University
POMS Annual Conference, Denver, CO
MSOM Conference, INSEAD, France
INFORMS Applied Probability Conference, San Jose, Costa Rica
Healthcare INFORMS Meeting, Chicago, IL
Workshop on Empirical Research in Operations Management, Philadelphia, PA
INFORMS Annual Meeting, Minneapolis, MN

Nanyang Business School, Nanyang Technological University, Singapore
Naveen Jindal School of Management, University of Texas at Dallas
Kellogg School of Management, Northwestern University
Johnson Graduate School of Management, Cornell University
School of Operations Research and Information Engineering, Cornell University
Lundquist College of Business, University of Oregon
Winter Simulation Conference, Washington, D.C.
HKUST Business School, The Hong Kong University of Science and Technology

- 2012 International INFORMS Meeting, Beijing, China
INFORMS Annual Meeting, Phoenix, AZ
MSOM Conference, New York, NY
- 2011 Healthcare INFORMS Meeting, Montreal, Canada