Kemal Dinçer Dingeç, Ph.D.

Contact Information

İstanbul Kemerburgaz University
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Work Experience

(February 2016 – Present) Assistant professor in the Industrial Engineering Department at İstanbul Kemerburgaz University, Turkey.

(October 2014 – October 2015) Post-doctoral researcher in the H. Milton Stewart School of Industrial and Systems Engineering at Georgia Institute of Technology, U.S.

(January 2013 – October 2014) Post-doctoral researcher in the Industrial Engineering Department at Boğaziçi University, Turkey.

(January 2012 – January 2013) Researcher in the Department of Industrial and Systems Engineering at Yeditepe University, Turkey.

(April 2010 – January 2012) Researcher in the Industrial Engineering Department at Boğaziçi University, Turkey.

Degrees

Ph.D., Industrial Engineering, Boğaziçi University, Turkey, 2013.
Thesis: "Option Pricing by Simulation".

M.S., Industrial Engineering, Boğaziçi University, Turkey, 2007.
Thesis: "Analysis of Disassembly Systems in Remanufacturing using Kanban control".

B.S., Industrial Engineering, İstanbul Technical University, Turkey, 2005.

Research Interests

Monte Carlo simulation (variance reduction and output analysis), Financial engineering, Stochastic models of manufacturing systems.

Publications

Papers in Archival Journals

1. K. D. Dingeç, H. Sak, and W. Hörmann, Variance reduction for Asian options under a general model framework. *Review of Finance*, 19(2):907–949, 2015. (SSCI)

2. A. Korugan, K. D. Dingeç, T. Önen, and N. Y. Ateş, On the quality variation impact of returns in remanufacturing. *Computers & Industrial Engineering*, 64(4):929–936, 2013. (SCI-E)

3. K. D. Dingeç and A. Korugan, A stochastic analysis of asynchronous demand in disassembly processes of remanufacturing systems. *European Journal of Industrial Engineering*, 7(2):175–205, 2013. (SCI-E)

4. K. D. Dingeç and W. Hörmann, Control variates and conditional Monte Carlo for basket and Asian options. *Insurance: Mathematics and Economics*, 52(3):421–434, 2013. (SCI-E, SSCI)

5. K. D. Dingeç and W. Hörmann, A general control variate method for option pricing under Lévy processes. *European Journal of Operational Research*, 221(2):368–377, 2012. (SCI-E)

6. K. D. Dingeç and W. Hörmann, Using the continuous price as control variate for discretely monitored options. *Mathematics and Computers in Simulation*, 82(4):691–704, 2011. (SCI-E)

Papers in International Refereed Conference Proceedings

1. K. D. Dingeç, C. Alexopoulos, D. Goldsman, J. R. Wilson, W. Chiu, and T. Aktaran-Kalaycı, Jackknifed Variance Estimators for Simulation Output Analysis. In L. Yilmaz, W. K V. Chan, I. Moon, T. M. K. Roeder, C. Macal, and M. D. Rossetti, editors, *Proceedings of the 2015 Winter Simulation Conference*, Institute of Electrical and Electronics Engineers, Piscataway, NJ, 2015.

2. K. D. Dingeç and W. Hörmann, Improved Monte Carlo and Quasi–Monte Carlo Methods for the Price and the Greeks of Asian Options. In A. Tolk, S.Y. Diallo, I.O. Ryzhov, L. Yilmaz, S. Buckley, and J.A. Miller, editors, *Proceedings of the 2014 Winter Simulation Conference*, Institute of Electrical and Electronics Engineers, Piscataway, NJ, 2014.

3. K. D. Dingeç and W. Hörmann, New Control Variates for Lévy Process Models. In C. Laroque, J. Himmelspach, R. Pasupathy, O. Rose and A. M. Uhrmacher, editors, *Proceedings of the 2012 Winter Simulation Conference*, Institute of Electrical and Electronics Engineers, Piscataway, NJ, 2012.

4. A. Korugan and K. D. Dingeç, Analysis of Disassembly Systems in Remanufacturing using Kanban Control. In *Proceedings of the POMS 18th Annual Conference*, Dallas, TX, 2007.

Papers in National Refereed Conference Proceedings

K. D. Dingeç, H. Sak, and W. Hörmann, Asya Opsiyonlarının Stokastik Volatilite Modelleri Altinda Etkin Simülasyonu. *17. Finans Sempozyumu*, Muğla, Turkey, 23–26 Ekim 2013.

Papers Under Review

K. D. Dingeç, Precise Calculation of the Price and the Sensitivities of Basket Options.

Referee Activity

European Journal of Operational Research
International Journal of Production Economics
International Journal of Computer Mathematics
Emerging Markets Finance and Trade
Proceedings of the 2014 Winter Simulation Conference

Presentations

Talks in International Conferences

Improved Monte Carlo and Quasi–Monte Carlo Methods for the Price and the Greeks of Asian Options. *Winter Simulation Conference 2014*, Savannah, GA, USA, December 7–10, 2014.

Control Variates and Conditional Monte Carlo for Asian and Basket Options. *9th IMACS Seminar on Monte Carlo Methods*, Annecy-le-Vieux, France, July 15–19, 2013.

Variance Reduction for Asian Options under a General Model Framework. *The International Conference on Computational Science (ICCS) 2013, Workshop on Computational and Algorithmic Finance (WCAF) 2013*, Barcelona, Spain, June 5–7, 2013.

New Control Variates for Lévy Process Models. *Winter Simulation Conference 2012*, Berlin, Germany, December 9–12, 2012.

A General Control Variate Method for Option Pricing under Lévy Processes. *8th World Congress in Probability and Statistics*, İstanbul, Turkey, July 9–14, 2012.

Variance Reduction for Asian Options. *International Conference on Mathematical Finance and Economics (ICMFE) 2011*, İstanbul, Turkey, July 6–8, 2011.

A New Control Variate Method for Discrete Barrier and Lookback Options. *24th Mini EURO Conference on Continuous Optimization and Information-Based Technologies in the Financial Sector, MEC-EurOPT-2010*, İzmir, Turkey, June 23–26, 2010.

Seminar Talks

Improved Monte Carlo and Quasi–Monte Carlo Methods for the Price and the Greeks of Asian Options. *Department of Industrial Engineering, İstanbul Kültür University*, İstanbul, Turkey, December 11, 2015.

New Control Variates for Lévy Processes and Asian Options. *Institute for Statistics and Mathematics, Vienna University of Economics and Business*, Vienna, Austria, June 20, 2013.

Teaching Experience

Courses Taught

Introduction to Financial Engineering, Spring 2016, B.S. course,
Department of Industrial Engineering, İstanbul Kemerburgaz University.

Statistics for Engineers, Spring 2016, B.S. course,
Department of Industrial Engineering, İstanbul Kemerburgaz University.

Courses Assisted

Statistical Inference, Spring 2014, M.S. course,
Department of Industrial Engineering, Boğaziçi University.

Quantitative Methods in Finance, Fall 2013, M.S. course,
Department of Industrial Engineering, Boğaziçi University.

Statistical Inference, Spring 2013, M.S. course,
Department of Industrial Engineering, Boğaziçi University.

Quantitative Methods in Finance, Fall 2012, Ph.D. course,
Department of Industrial and Systems Engineering, Yeditepe University.

Forecasting, Spring 2011, B.S. course,
Department of Industrial Engineering, Boğaziçi University.

Skills

English: Fluent
Programming languages: R, C
Mathematica, Arena
LaTeX