

# Industrial and Systems Engineering Seminar

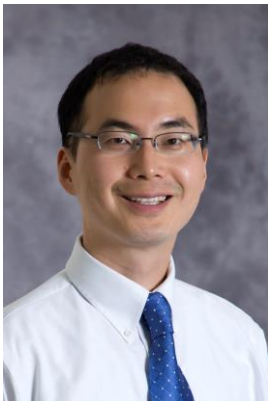
## *Pricing under the Nested Attraction Model with a Multi-stage Choice Structure*

Wednesday, December 3

3:15 PM – Refreshments before the Seminar

3:30 PM – Graduate Seminar

Mechanical Engineering Room 4125 A & B



### **Tim Huh**

Associate Professor

Sauder School of Business

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We develop a solution approach to the centralized pricing problem of a nested attraction model with a multi-stage tree structure. We identify conditions under which the optimal solution can be uniquely determined and characterize the optimal solution as a fixed-point of a single variable. In the special case of a multi-stage nested logit model, we show the impact of asymmetry in price sensitivity and adjustment index (also known as the dissimilarity index) and we derive a closed-form solution when the tree structure is symmetric. We show that the equal mark-up property which holds for the single-stage nested attraction models is not valid in the multi-stage nested choice structure even when price sensitivities are the same for all products.

Joint work with Hongmin Li (ASU)

**BIO:** Woonghee Tim Huh is an associate professor in the Sauder School of Business at the University of British Columbia. His current research interests include supply chain management, inventory control and dynamic pricing. He received a B.A. in sociology, B.Math in computer science and M.Math in combinatorics & optimization from the University of Waterloo, and holds an M.Sc. and a Ph.D. in Operations Research from Cornell University. He is an associate editor for Management Science, Naval Research Logistics and Operations Research Letters, and a senior editor for Production and Operations Management.