



INFORMS Student Chapter Seminar Series



Dr. J. Cole Smith

Associate Provost for
Academic Initiatives
Clemson University

Formulations Accounting for Uncertainty: Robustness, Interdiction, Expectation, VaR, and CVaR

Abstract

This talk will provide an introduction to optimization models that address stochastic and two-stage optimization problems. Although some of the talk will regard interdiction modeling and bilevel optimization, which are predominantly useful when considering multi-agent optimization settings, most of the presentation will regard strategies for modeling optimization under uncertainty. Specifically, we will discuss robust optimization and (scenario-based) stochastic programming models, including minimization of expected costs, value at risk, and conditional value at risk. Some concepts will be better understood by those having a thorough understanding of optimization, but the vast majority of this talk will be accessible to graduate students or undergraduates having a keen interest in optimization models.

About the Speaker

Dr. Cole Smith is Associate Provost of Academic Initiatives and Professor of Industrial Engineering at Clemson University. He received his B.S. in Mathematical Sciences from Clemson University in 1996 and his Ph.D in Industrial & Systems Engineering from Virginia Tech in 2000. His research interests include combinatorial optimization models and algorithms, optimization of large-scale systems and network problems. He received the Fellow award from the Institute of Industrial and Systems Engineers in 2018. His career is full of many other prestigious paper and teaching awards. Dr. Smith currently serves as the Chair of the INFORMS Computing Society, INFORMS Vice President for Publications, and IISE Senior Vice President for Continuing Education.

Freeman Hall
Auditorium

Tuesday, September 17
12:30 – 1:45 pm