



A Tour of Modeling Techniques

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Date: Thursday, June 5th, 2008

Time: 12 pm

Room: Lecture Theatre 11

Abstract: This talk presents a series of examples that illustrate four approaches to modeling: disjunctive modeling, mixed integer modeling, modeling in constraint programming, and an integrated modeling approach. Disjunctive models are not only useful in their own right, but they form part of a principled approach to mixed integer modeling that I will describe. The examples include production planning, facility location, lot sizing, freight transport, employee scheduling, product configuration, and machine allocation and scheduling.

Bio: John Hooker is T. Jerome Holleran Professor of Business Ethics and Social Responsibility, and Professor of Operations Research, at Carnegie Mellon University. His research interests include operations research, business ethics, and cross-cultural issues, and he has published over 130 articles and seven books in these fields. He is founding editor-in-chief of the Journal of Business Ethics Education and an area editor for INFORMS Journal on Computing. He was recently named an INFORMS Fellow for outstanding contributions to operations research and the management sciences. His recent book *Integrated Methods for Optimization* reflects his primary research interests in operations research, and his book *Working across Cultures* is used as a text in cross-cultural business courses. He developed the instructional materials for the business ethics program at CMU's Tepper School of Business. In the 1990s he re-organized CMU's undergraduate business program and led the design of its curriculum.