



Operations Research Seminar

Mathematical Models for Studying the Value of Motivational and Cooperational Leadership in Organizational Teams

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A collection of mathematical models is presented for studying the value of leadership in a team where the members interact with each other. These models include the role of a leader in achieving cooperation among the team members and hence improving overall team performance. Each model includes controllable parameters whose values reflect the amount of interaction among the workers as well as the skill and variance of the leader in achieving cooperation and motivation. Computer simulations are used to show how the skill of the leader can overcome, or at least attenuate, the “complexity catastrophe,” in which team performance deteriorates as the amount of interaction among the team members increases.

Biography: Daniel Solow was born in Washington, D.C. at a very young age. He soon learned that Danny was his name and mathematics was his game. He received a Ph.D. in Operations Research from Stanford University and has been a professor at Case Western Reserve University since 1978. His research interests include discrete, linear, and nonlinear optimization and he uses these tools in modeling complex systems. He has also developed systematic methods for teaching mathematical proofs and reasoning, computer programming, and operations research.

Date: Thursday, May 8, 2008

Time: 15:00-16:00

Location: Glasgow 115