POM 2007: Plenary Session

Honoring William W. Cooper, Charles C. Holt, and Gerald E. Thompson

**Sunday: May 6, 8:30 am -10:00 am Regency Ballroom**

Chair: Paul R. Kleindorfer, INSEAD and The Wharton School

Introductory Comments: Hau L. Lee, Stanford University
Suresh Sethi, University of Texas at Dallas
Martin K. Starr, Rollins College

Speakers: William W. Cooper, Charles C. Holt, and Gerald L. Thompson

The Production and Operations Management Society (POMS) will honor William W. Cooper, Charles C. Holt, and Gerald L. Thompson in this special plenary session. The foundations of modern operations management, and much else, were laid in the 1950s and 1960s at Carnegie Institute of Technology and the UCLA-RAND complex, and all three honorees at the time were at Carnegie Institute of Technology. Several generations of scholars in our profession owe a great deal in their careers to the ideas and scholarly activities of the honorees. After a retrospective by several POMS Fellows on the impact of the "Carnegie School", the honorees will reflect on these early years and their longer-term implications for our profession.

William W. Cooper is the Foster Parker Professor of Finance and Management (Emeritus) at the Red McCombs School of Business at the University of Texas at Austin. He received a B.A. in Economics from Chicago in 1938, and did his graduate work at Columbia University. He was a founding member of the faculty of GSIA at Carnegie Institute of Technology (now Carnegie Mellon University) and the founding Dean of the School of Urban and Public Affairs (now the H. J. Heinz School of Management and Public Policy) at Carnegie. He was the founding President of The Institute of Management Science (TIMS) and he served on editorial boards which led to the founding of both Operations Research and Management Science. Before joining the faculty at the University of Texas at Austin, he was the Arthur Lowes Dickson Professor of Accounting at the Harvard Business School. Author or co-author of more than 500 articles and 20 books,
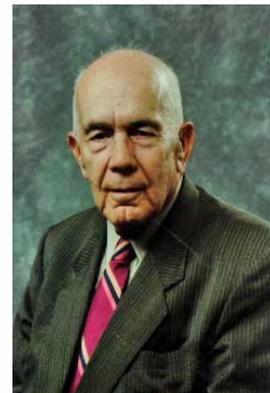
Professor Cooper holds the John von Neumann theory medal awarded jointly by ORSA and TIMS in 1982 for fundamental contributions to the theory of Operations Research and Management Science. Among his many contributions to Operations Management, one must reckon his pioneering work in applying mathematical programming to applications in refinery and transportation operations in the 1950s, which led the way to both practical and theoretical developments in linear and non-linear programming in the 1960s. His pioneering work with Abraham Charnes includes the discovery and elaboration of Data Envelopment Analysis, which has become an important foundation for comparative efficiency analysis in economics and business. Professor Cooper's work has been strongly colored by his commitment to the accounting foundations of economic activity in bringing theory and data together to understand and solve significant managerial and public sector problems.

Charles C. Holt is professor emeritus at the Red McCombs School of Business of the University of Texas at Austin. He earned his B.S. and M.S. degrees in electrical engineering from MIT and M.A. and Ph.D. (1955) in economics from the University of Chicago. He has held positions at the MIT Servo Lab, the Carnegie Institute of Technology, the London School of Economics, the University of Wisconsin, and the Urban Institute. Professor Holt's research has concerned a wide range of topics, including automatic control, computer simulation, control theory, decision support systems for unstructured problems, macroeconomic theory, and operations research. At Carnegie Institute of Technology, he worked in the 1950s to develop the foundations of exponential smoothing, which were further extended by Winters in 1965, and have since been known as the Holt–Winters exponential smoothing models of forecasting. Widely used in business forecasting, these models are embedded in almost all forecasting software and taught in almost all business programs. Professor Holt led the Holt, Modigliani, Muth, and Simon team in their pioneering analysis of feedback control systems for production and inventory models in practice which was published in the now classic book Planning Production, Inventory and Work Force (1960). This work led to many further developments, by Professor Holt and others, in the application of discrete optimal control theory and dynamic programming to economic stabilization policies, and to a variety of industry specific studies from cocoa to aluminum. Because of its analytic foundation, its broad applicability to many areas of business and economics, and its attention to integrating optimization with appropriate estimation techniques (for the cost functions and sales drivers underlying the original model), this work has arguably been amongst the most important applications of the past 50 years in inspiring continuing developments in the integration of theory and practice for business and economics.

Gerald L. Thompson is IBM Professor of Operations Research (Emeritus) of Carnegie Mellon University. He did his doctoral work in Mathematics at the University of Michigan (1953), following his B.S. at Iowa State University (1944) and M.S. at MIT (1948). Following appointments at Princeton, Dartmouth and Ohio Wesleyan, Professor Thompson joined the faculty at Carnegie in 1959 and taught there throughout the rest of his career. He has made fundamental contributions to many areas of applied optimization theory in economics and management science. His notable early achievements included his Introduction to Finite Mathematics (1957) with Kemeny and Snell, which was an important foundation for management science curricula throughout the United States. In Operations Management, Professor Thompson organized with Jack Muth the first conference on scheduling in 1961. This led to their book Industrial Scheduling, which was the stepping stone for the flurry of activity in the area beginning in the 1960s and continuing to this day. He saw early on the promise of optimal control theory, developed by Pontryagin and his co-workers in the 1950s and 1960s, but which had only seen engineering applications until elaborated and applied to economics and management problems by the Carnegie School. Professor Thompson's book with Suresh Sethi, Optimal Control Theory: Applications to Management Science developed the theory and showed its broad applicability to a wide range of problems in operations, marketing and finance. His work in Operations Management has been seminal in areas such as optimal maintenance policies, crew scheduling, production planning, and job sequencing, the latter including his pioneering work in the 1970s on the traveling salesman problem. Professor Thompson has also made significant contributions to the computational foundations of economics, including his work on expanding and contracting economies, on auctions, and on characterizations of various solution outcomes for trading economies.