

SEMINAR SERIES
Department of Quantitative Analysis and Operations Management
College of Business Administration
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“Precedence Theorems for One-Machine Weighted Tardiness”

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111 Lindner Hall

In an earlier paper by Emmons (1969), the problem of sequencing jobs on a single machine in order to minimize total tardiness was analyzed. Emmons provided three theorems for specifying precedence relations for pairs of jobs. His theorems apply when the tardiness penalty for each job grows at the same rate. Rinnooy Kan, Lageweg, and Lenstra (1975) later extended Emmons's theorems to the case when job tardiness penalties can grow at different rates for different jobs. Presented here is a set of stronger theorems than those of Rinnooy Kan, et al., which more fully exploit the special properties of the weighted tardiness function.

John J. Kanet (BS, Mech. Eng., Lehigh, 1967; MBA, Loyola College, 1979; PhD, Penn State, 1979) is Professor and Niehaus Chair in Operations Management at the University of Dayton. Formerly Burlington Professor of Management at Clemson University, he was a Senior Fulbright Research Scholar to Germany three times (1983-84, Univ. Erlangen/Nürnberg; 1992-1993 Univ. GH Essen, 2001, Univ of Munich). He is a former materials manager for the Black & Decker Mfg. Co. He served as Area Editor for Production and Operations Management and member of the editorial advisory board for Journal of Operations Management. He is a lifetime member of POMS, having won the Best Paper Award at the 1992 national conference. Jack's research interests include new approaches to production/logistics planning systems design and performance measurement.