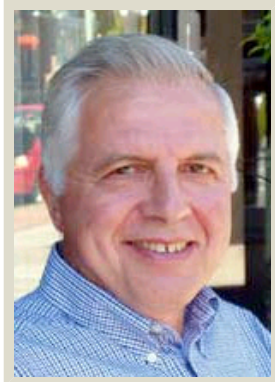


Faculty - Amedeo R. Odoni

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Amedeo R. Odoni

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Education

- S.B. 1965 MIT
- S.M. 1967 MIT
- Ph.D. 1969 MIT

Research Interests

Professor Odoni's research interests are in applied probability theory, stochastic processes and decision-making under uncertainty, principally in air transportation system infrastructure. He looks at models and tools for exploring demand/capacity and demand/delay relationships in airports and air traffic control (ATC) and effective uses of available airport and ATC resources on a daily basis. He and his research group develop optimization algorithms for application in real-time flow management of air traffic; dynamic statistical models for predicting the occurrence of various events in real-time, such as the time of take-off from congested airports; a model to compute delays on a network of airports; computer-aided design of passenger terminals; and dynamic queueing models.

He also pursues research in risk assessment for railroads involving the development of a comprehensive safety performance index for railroad operations, as well as the exploratory analysis of data on accidents at railroad grade crossings and development of statistical models for inter-arrival times of very rare accidents. He also works in probabilistic extensions and variations of classical combinatorial optimization models such as the traveling salesman problem.

Teaching Interests

1.200 Transportation Systems Analysis

1.203 Logistical and Transportation Planning Methods

Selected Publications

Professor Odoni is the author or co-author of three books and more than 80 professional publications, as well as co-editor of six books. He served as editor-in-chief of *Transportation Science* from 1985 to 1991, and is a current or past member of the editorial boards of many professional journals, including *Operations Research*, *Transportation Science*, *Transportation Research C*, *Interfaces*, and the *Journal of Aircraft*.



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