

SEMINAR SERIES  
Department of Quantitative Analysis and Operations Management  
College of Business Administration  
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## **"Stand Allocation at Zurich Airport"**

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**12:30 p.m.**

**218 Lindner Hall**

The assignment of aircraft / rotations to stands is an important part of the daily operation of an airport. The location and type of stand allocated to a plane affects the service performed by a number of departments within the airport such as catering, re-fuelling, customs and passport control to name a few. Certain factors such as carrier, size of aircraft, origin of the flight and subsequent destination of the airplane as well as the availability of stands, determine the assignment. In order to accommodate the increase in the daily number of flights expected at Zurich airport in the future, a new Midfield terminal is currently under construction. As part of a simulation model for the airport operations in the year 2006, a procedure for assigning planes to stands, including the additional midfield stands, had to be developed. A set of rules for stand allocation exists and while some rules are hard and must be satisfied, others are soft and should be met if possible. Since every airport is configured differently, there is no standard allocation procedure that can apply to all airports.

After introducing the problem and its constraints, various solution procedures will be discussed and the results from the implemented approach will be presented. The organizational structure of the airport and the problems stemming from it will also be pointed out. Other airline related projects may be discussed.

Dr. Eleni Pratsini is a senior scientist with the Institute of Operations Research (IFOR) at the Swiss Federal Institute of Technology, Zurich (ETHZ). She leads the Engineering Operations group and is involved in industrial-based research projects in collaboration with companies such as Swissair, Atraxis AG, Holcim and Planzer. Prior to joining IFOR, Dr. Pratsini was an Associate Professor in the Department of Decision Sciences and Management Information Systems at Miami University. She has published a number of research articles in the areas of production, manufacturing and environmental engineering. Dr. Pratsini holds a Civil Engineering degree from the University of Birmingham (U.K.), an MBA from UCLA and a Ph.D. in Quantitative Analysis from the University of Cincinnati.