

# Interfaces

WHERE PRACTICE AND THEORY CONVERGE

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## SPECIAL SECTION: WAGNER PRIZE PAPERS

**349** The Daniel H. Wagner Prize for Excellence in Operations Research Practice  
**Joseph H. Disenza**

**353** Merrill Lynch Improves Liquidity Risk Management for Revolving Credit Lines  
**Tom Duffy, Manos Hatzakis, Wenyue Hsu, Russ Labe, Bonnie Liao, Xiangdong (Sheldon) Luo, Je Oh, Adeesh Setya, and Lihua Yang**  
Merrill Lynch developed a Monte Carlo simulation incorporating OR/MS techniques that freed up about \$4 billion of liquidity.

**370** GE Asset Management, Genworth Financial, and GE Insurance Use a Sequential-Linear-Programming Algorithm to Optimize Portfolios  
**Kete Charles Chalermkraivuth, Srinivas Bollapragada, Michael C. Clark, John Deaton, Lynn Kiaer, John P. Murdzek, Walter Neeves, Bernhard J. Scholz, and David Toledano**  
Since its implementation in 2003, GE used the SLP algorithm to optimize more than 30 portfolios valued at over \$30 billion. In broader use at GEAM, GEI, and Genworth, it should provide about \$75 million in benefits over five years.

**381** Maximizing Federal Natural Gas Royalties  
**Steven A. Stoddard**  
The US Minerals Management Service uses a goal-price metric and an optimization model to decide whether to accept royalties in value (cash) or in kind (physical transfer of gas).

**393** Reinventing Crew Scheduling at Netherlands Railways  
**Erwin Abbink, Matteo Fischetti, Leo Kroon, Gerrit Timmer, and Michiel Vromans**  
An OR model supported development of scheduling rules that satisfied crew members, resolved nationwide strikes, and cut personnel costs.

**402** Scheduling Employees in Quebec's Liquor Stores with Integer Programming  
**Bernard Gendron**  
The Société des Alcools du Québec uses an integer-programming model to schedule more than 3,000 employees to work in over 400 stores every week, saving over \$1,000,000 annually.

**411** Ensuring Access to Emergency Services in the Presence of Long Internet Dial-Up Calls

**V. Ramaswami, David Poole, Soohan Ahn, Simon Byers, and Alan Kaplan**

To make sure its customers get a dial tone, AT&T used queueing models and statistical data analysis to find the cause of congestion and to effect a graceful degradation of service under overloads.

## REGULAR FEATURES

**423** Practice Abstracts

**Brian T. Denton**

**425** Editorial: The Sixth *Interfaces* Ranking of Universities' Contributions to the Practice Literature

**Michael H. Rothkopf**

**429** Model World: Tales from the Time Line—The Definition of OR and the Origins of Monte Carlo Simulation

**Saul I. Gass and Arjang A. Assad**

**445** Contributors

**448** Meeting Calendar

## BOOK REVIEWS

**436** Benjamin Lev

*Operations Research in Space and Air*

**Tito A. Ciriani, Giorgio Fasano, Stefano Gliozzi, and Roberto Tadei, eds.**

*Introducing Game Theory and Its Applications*

**Elliott Mendelson**

*An Optimization Primer: On Models, Algorithms, and Duality*

**John L. Nazareth**

*Optimization Principles: Practical Applications to the Operation and Markets of the Electric Power Industry*

**Narayan S. Rau**

*Stochastic Networks and Queues*

**Philippe Robert**

*Strategy and Organization in Supply Chains*

**Stefan Seuring, Martin Muller, Maria Goldbach, and Uwe Schneidewind, eds.**