



XXXIX Annual Conference
Italian Operational Research Society
Hotel Continental Terme, Ischia – Italy
September 7th – 11th, 2008

EWGT2008 - 12th Meeting Euro Working Group on Transportation

OPTIMISATION AND LOGISTICS IN TRANSPORTATION AND COMMUNICATION NETWORKS

Sunday Sept. 7th 2008

EWGT2008 WELCOME

Pitecusa Room

Time: 14.30 – 15.00

Maurizio Bielli *Welcome to EWGT2008 participants*

FT – FREIGHT TRANSPORTATION

Chair: S. Val Blasco

EWGT2008

Pitecusa Room

Time: 15.00 – 16.30

- FT.1 *Optimal location of rail-road terminals based on freight demand models*
U. Crisalli, A. Comi, N. de Santis
- FT.2 *Assessment of modal transfer of freight on the Franco-Iberian atlantic corridor*
J.P. Benoit
- FT.3 *Bottlenecks analysis in multimodal freight centers in Spain*
S. Val Blasco, M. Pérez Bernal, E. Larrodé Pellicer

TDM – TRANSPORT DEMAND MODELS

Chair: A. Vitetta

EWGT2008

Primavera Room

Time: 15.00 – 16.30

- TDM.1 *A system of models for passenger air transport demand estimation in a regional airport*
E. Bonvino, M. Ottomanelli, D. Sassanelli
- TDM.2 *A mixed RP/SP demand model to evaluate policy actions for optimizing the freight mobility system in Sicily*
M. Migliore, M. Catalano, G. Maiorana
- TDM.3 *Urban freight distribution in urban area: demand and routing models*
A. Polimeni, F. Russo, A. Vitetta

Sunday Sept. 7th 2008

EWGT2008

ITS - INTELLIGENT TRANSPORTATION SYSTEMS

Chair: A. Campagna

Nitrodi Room

Time: 15.00 - 16.30

- ITS.1 *A traffic estimation model based on inductive loops and floating car data for the city of Milano: a work in progress*
O. Caccia Dominioni, D. Ciccarelli, A. Colorni, A. Luè
- ITS.2 *State of the art in the estimation of traffic flow parameters from instrumented vehicles counts and new possibilities in incident detection methodologies*
V. Astarita, G. Guido, F. Crocco
- ITS.3 *An ICT innovative system for fleet management*
A. Campagna, F. Filippi, F. Ortenzi, F. Sarracco

Optimization Technologies Workshop:

ILOG WS

BUILDING STATE-OF-THE-ART DECISION SUPPORT APPLICATIONS

Workshop Presenter: Hermann Stolle

Serapide Room

Time: 15.00 - 19.00

- 15:00-15:45 *Introduction to ILOG Optimization*
- 15:45-16:30 *Selling Industry Projects and Related Research Projects with Mixed Integer Programming*
- 16:30-17:00 **Coffee break**
- 17:00-18:30 *Technical overview of the ILOG Optimization Suite including the new product versions ODM 3, OPL 6, CP Optimizer 2 and CPLEX 11*
- 18:30-19:00 **Q&A**

Sunday Sept. 7th 2008

EWGT2008

NN - NEURAL NETWORKS

Chair: M. Ottomanelli

Pitecusa Room

Time: 17.00 - 18.30

- NN.1 *Saturation flow estimation using artificial neural networks*
M. Ottomanelli, L. Caggiani, D. Sassanelli
- NN.2 *Simulation of pedestrians behaviour at unsignalized roadway crossings by adaptive neural network based fuzzy inference system*
M. Ottomanelli, G. Iannucci, D. Sassanelli
- NN.3 *Hybrid models of neural network method for road safety regulations: Safety index calibration and Intelligent Transportation Systems based safety control*
H.B. Celikoglu, G.E. Gurcanli

EWGT2008

TAM - TRAFFIC ASSIGNMENT MODELS

Chair: G.E. Cantarella

Primavera Room

Time: 17.00 - 19.00

- TAM.1 *A multimodal equilibrium model with crossed congestion for simulating the urban freight distribution*
L. D'Acerno, M. Gallo, B. Montella
- TAM.2 *Equilibrium assignment models with elastic demand: which algorithms and which approaches to the calibration of mode choice parameters?*
G.E. Cantarella, A. Carteni, S. de Luca
- TAM.3 *A multimodal multiuser approach with elastic demand for analysing pricing policies in urban contexts*
R. Ciccarelli, L. D'Acerno, M. Gallo, B. Montella
- TAM.4 *Airport groudside traffic management: a polynomial case*
G. Andreatta, L. De Giovanni, G. Salmaso

EWGT2008

FM - FLEET MANAGEMENT

Chair: O.G.B. Madsen

Nitrodi Room

Time: 17.00 - 18.30

- FM.1 *Fleet sizing for cyclic distribution planning*
B. Raa
- FM.2 *Modelization of time-dependent urban freight problems by using a multiple number of distribution centers*
D. Escuín Finol, C. Millán Ibor, E. Larrodé Pellicer
- FM.3 *The double TSP with multiplestacks - heuristic solution approaches*
O.G.B. Madsen, H.L. Petersen

Monday Sept. 8th 2008

AIRO2008 AND EWGT2008 OPENING SESSION

Pitecusa Room

Time: 14.30 - 16.00

L. Berlinguer, L. Bianco, E. Cosenza, R. De Leone, A. Mazzeo, C. Sbordone, G. Trombetti

Welcome to EWGT2008 and AIRO2008 participants

INVITED LECTURE (IN OPENING SESSION)

Pitecusa Room

Time: 15.30 - 16.00

Ennio Cascetta

The regional metro system project of Campania: Design methodology and impacts evaluation

INVITED LECTURE (IN PLENARY SESSION)

Chair: A. Sforza

Pitecusa Room

Time: 16.00 - 17.00

Teodor G. Crainic

Stochastic network design

AIRO2008

MCDM - MULTI CRITERIA AND DECISION MAKING

Chair: A. Colorni

Pitecusa Room

Time: 17.30 - 19.30

MCDM.1

UK transport appraisal procedure: a possible integration with a MCDA method
M. Inserra, E. Avineri

MCDM.2

Communication network in system of systems architectures
E. Liguigli, D. Mascolo, M.F. Norese

MCDM.3

The art and science of robust decision-making
M. Sniedovich

MCDM.4

The analytic hierarchy process as a public decision making method: the case of justice efficiency in Italy
A. Colorni, P. Intini, A. Luè

MCDM.5

Instant lotto
L. Maino, G. Rando Mazzarino

Monday Sept. 8th 2008

AIRO2008

CP1 - CUTTING AND PACKING 1 (Invited Session)

Chair: C. Arbib

Primavera Room

Time: 17.30 - 19.30

- CP1.1 *2-Dimensional packing problems in telecommunications*
A. Lodi, S. Martello, M. Monaci
- CP1.2 *Models for exact solution of two dimensional cutting stock problem*
J.M. Valério de Carvalho, C. Alves, F. Alvelos, R. Macedo, T.M. Chan, E. Silva
- CP1.3 *Trim loss minimization under a given number of open stacks*
C. Arbib, F. Marinelli, F. Pezzella
- CP1.4 *Cutting stock with no three parts per pattern: Work-in-process and pattern minimization,*
C. Arbib, A. Aloisio, F. Marinelli
- CP1.5 *A heuristic approach for a container loading problem with non-convex domain*
M. Boccia, C. Di Martino, F. Mosca, A. Sforza, C. Sterle

AIRO2008

ORDM - OR AND DATA MINING IN BIOLOGICAL DATA (Invited Session)

Chair: E. Messina

Nitrodi Room

Time: 17.30 - 19.30

- ORDM.1 *Optimal Kernel Selection by Genetic Programming for SVM Learning Methods*
D. Conforti, R. Guido
- ORDM.2 *Discrete Optimization Algorithms for the K-hyperplane Clustering Problem*
E. Amaldi, S. Coniglio, K. Dhyani
- ORDM.3 *An Application of a Clustering Lagrangian Heuristic to Identify Cancer Subtypes*
M.C.V. Nascimento, F.M.B. Toledo, A.C. Ponce de Leon Ferreira de Carvalho
- ORDM.4 *Learning gene's Transcriptional Regulatory Networks*
I. Giordani, G. Mauri, E. Messina, F. Archetti
- ORDM.5 *Operations research applications in biomedicine*
P.M. Pardalos

AIRO2008

HEUR - HEURISTICS

Chair: D. Favaretto

Serapide Room

Time: 17.30 - 19.30

- HEUR.1 *A time-window heuristic for multi-machine set-up reduction*
J. April
- HEUR.2 *A new self-adaptive pheromone model for ant colony optimization applied to scheduling*
D. Anghinolfi, M. Paolucci
- HEUR.3 *On exploration in stochastic algorithms: an application to ant colony optimization*
P. Pellegrini, D. Favaretto, E. Moretti
- HEUR.4 *A heuristic algorithm based on the set covering approach for the multicut problem*
D. Kimoto, M. Yagiura, T. Ono, T. Hirata
- HEUR.5 *The one finger keyboard layout problem*
M. Dell'Amico, J.C. Diaz, M. Iori, R. Montanari

Monday Sept. 8th 2008

EWGT2008

PTR - PUBLIC TRANSPORTATION

Chair: R. García-Ródenas

Bridge Room

Time: 17.30 - 19.30

- PTR.1 *Optimization of the departure schedule at a public transit terminal with multiple destinations*
G. Improta, G. Bruno, A. Sgalambro
- PTR.2 *A tabu search algorithm for real-time railway traffic optimisation*
D. Pacciarelli, F. Corman, A. D'Ariano, M. Pranz
- PTR.3 *Optimizing frequencies in a transit network: an integer nonlinear bi-level programming approach*
R. García-Ródenas, V. Montesinos-Calvo-Parra
- PTR.4 *Telematic technologies for public transportation users in Ischia*
F. Murolo

AIRO2008 AND EWGT2008 WELCOME PARTY

Hotel Continental Terme

Time: 20:00

AIRO2008	NSLP - NUMERICAL SOLUTION OF LINEAR PROBLEMS (Invited Session) Dedicated to Gianfranco Cimmino (1908-1989) Chair: C. Sbordone	
	Pitecusa Room	Time: 8.30 - 10.00
NSLP.1	<i>Cimmino's method for solving linear equations systems</i> I. Galligani	
NSLP.2	<i>Cimmino's method for the dirichlet problem</i> E. Lanconelli	
NSLP.3	<i>The subgradient method and applications to evolutionary equilibrium problems</i> P. Daniele	
NSLP.4	<i>Cimmino' method and the next generation of iterative solvers</i> V. Simoncini	

AIRO2008	ROUT1 - ROUTING 1 Chair: G. Laporte	
	Primavera Room	Time: 8.30 - 10.00
ROUT1.1	<i>The parking warden tour problem</i> M. Bruglieri, A. Colorni, D. Ciccarelli, A. Luè	
ROUT1.2	<i>Pickup and delivery problem with split load</i> J. Pelikán	
ROUT1.3	<i>A hybrid two phase algorithm for computing tours in a spare parts warehouse</i> M. Prandtstetter, G.R. Raidl	
ROUT1.4	<i>Algorithms for the swapping problem</i> G. Laporte, C. Bordenave, M. Gendreau	

AIRO2008	OC - OPTIMIZATION AND CONTROL Chair: M. Locatelli	
	Nitrodi Room	Time: 8.30 - 10.00
OC.1	<i>Boolean-controlled systems via receding horizon and linear programming</i> D. Bauso	
OC.2	<i>Support vectors machine for automatic emotion recognition in speech</i> G. Arosio, E. Fersini, E. Messina, F. Archetti	
OC.3	<i>Optimal dynamical malfunction diagnosis for plants and complex machines</i> S. Teobaldo, G. Patrizi, L. Di Giacomo	
OC.4	<i>Approximation algorithms for linear fractional-multiplicative problems</i> D. Depetrini, M. Locatelli	

Tuesday Sept. 9th 2008

AIRO2008

WN - WIRELESS NETWORKS

Chair: F. Archetti

Serapide Room

Time: 8.30 - 10.00

- WN.1 *On the location problems arising in planning wireless sensor networks for mobile target Detection*
E. Amaldi, A. Capone, M. Cesana, I. Filippini
- WN.2 *Minimum power multicasting in wireless networks under probabilistic node failures*
J. Barta, V. Leggieri, R. Montemanni, P. Nobili, C. Triki
- WN.3 *Using shortest path computations to solve wireless network design problems*
C. Mannino, S. Mattia, A. Sassano
- WN.4 *A machine learning approach to the analysis of wireless sensor networks*
E. Messina, D. Toscani, F. Archetti

INVITED LECTURE (IN PLENARY SESSION)

Chair: G. Rinaldi

Pitecusa Room

Time: 10.30 - 11.30

Rolf Möhring *Routing in graphs with applications in traffic and logistics*

AIRO2008

TM - TRANSPORTATION MODELLING

Chair: A. Nuzzolo

Pitecusa Room

Time: 11.30 - 13.30

- TM.1 *The conjoint use of rating and choice data for capturing the passenger perceptions about public transport services*
L. Eboli, G. Mazzulla
- TM.2 *Acoustic pollution from motorway traffic: a model for the optimal noise barriers location*
A. Fiorentino, A. Sannino, A. Sforza
- TM.3 *A group decision method based on Electre III: the assessment of a transportation system*
A. Luè
- TM.4 *The schedule-based approach in Public Transport modelling: state-of-the-art and possible developments*
A. Nuzzolo, U. Crisalli
- TM.5 *Simulation tools for the optimization of transit handling process in Roma airport*
B. Beltran, S. Carrese, L. Scannizzo

Tuesday Sept. 9th 2008

AIRO2008

ROUT2 - ROUTING 2

Chair: D. Vigo

Primavera Room

Time: 11.30 - 13.00

- ROUT2.1 *An exact algorithm for the pickup and delivery problem with time windows*
E. Bartolini, R. Baldacci, A. Mingozzi
- ROUT2.2 *An adaptive guidance approach for the heuristic solution of a multi-trip vehicle routing problem*
M. Battarra, M. Monaci, D.Vigo
- ROUT2.3 *Column generation for the split delivery vehicle routing problem*
A. Ceselli, G. Righini, M. Salani
- ROUT2.4 *A model and an algorithm for the single-depot vehicle scheduling with route time constraints (SDVSRTC)*
P. Coppola, R. Tribioli

AIRO2008

NLA - NUMERICAL LINEAR ALGEBRA: ABS METHODS AND EXTENSIONS

(Invited Session) Dedicated to Jenő Egerváry (1891-1958)

Chair: E. Spedicato

Nitrodi Room

Time: 11.30 - 13.30

- NLA.1 *Part I: A sketch of the life and main achievements of the hungarian mathematician E. Egerváry*
A. Galantai
- NLA.2 *Part II: The rank reduction linear algebra process of E. Egerváry,*
A. Galantai
- NLA.3 *ABS methods for integer linear systems and inequalities and integer linear programming*
N. Mahdavi-Amiri
- NLA.4 *ABS methods for continuous linear systems and nonlinear optimization*
E. Spedicato
- NLA.5 *Jenő Egerváry: From the origins of the Hungarian algorithm to satellite communication*
S. Martello

AIRO2008

CP2 - CUTTING AND PACKING 2

Chair: G. Patrizi

Serapide Room

Time: 11.30 - 13.30

- CP2.1 *Multi-dimensional bin packing with multi-drop constraints*
V.A. Armentano, O.C. Bassi de Araújo
- CP2.2 *Packing of polygons by the sentinels method*
E.G. Birgin, J.M. Martínez, W.F. Mascarenhas, D.P. Ronconi
- CP2.3 *Solving knapsack problems as linear complementarity problems*
L. Di Giacomo
- CP2.4 *Improvement of the bottom-up algorithm for the two-dimensional guillotine cutting stock problem*
M. Russo, A. Sforza, S. Prete
- CP2.5 *Heuristic and exact methods for the open stacks problem*
L. De Giovanni, F. Pezzella, M. Pfetsch, G. Rinaldi, P. Ventura

Tuesday Sept. 9th 2008

SEMIPLINARY SESSION

Pitecusa Room

Time: 14.30 – 15.30

Giancarlo Michellone *Strategy of Project for Sustainable Mobility/Industry 2015/MSE*

ROUND TABLE

Primavera Room

Time: 14.30 – 15.30

Alberto Colorni, Mario G. Dutto, Francesco Girardi, Giovanni Righini, Carlo Sbordone
Teaching of Mathematics and Operational Research

AIRO2008

LOG1 - LOGISTICS 1

Chair: M.F. Monaco

Pitecusa Room

Time: 16.00 – 18.00

- LOG1.1 *Analysis of management policies due to maritime terminal expansion*
D. Ambrosino, A. Sciomachen, E. Tanfani
- LOG1.2 *The ship planning problem at a transshipment container terminal*
M.F. Monaco, M. Sammarra
- LOG1.3 *A two level facility location system for freight distribution in urban areas*
T.G. Crainic, A. Sforza, C. Sterle
- LOG1.4 *Regional ICT platforms for logistic flows management*
P. Paganelli, E. Perossa

AIRO2008

ROUT3 - ROUTING 3

Chair: R. Tadei

Primavera Room

Time: 16.00 – 18.00

- ROUT3.1 *Vehicle routing under time dependent travel times: the impact of congestion avoidance*
L. Kok, M. Schutten, E. Hans
- ROUT3.2 *EC regulations on drivers' working hours and their integration into vehicle routing and scheduling*
H. Kopfer, C.M. Meyer, M. Bloos
- ROUT3.3 *Bounds for the two-echelon vehicle routing problem*
S. Mancini, T.G. Crainic, G. Perboli, R. Tadei
- ROUT3.4 *An exact method for the vehicle routing problem with time windows*
R. Baldacci, E. Bartolini, A. Mingozzi, R. Roberti
- ROUT3.5 *The periodic vehicle routing problem*
R. Baldacci, E. Bartolini, A. Mingozzi

Tuesday Sept. 9th 2008

TTPS - TRAFFIC AND TRANSPORTATION PROBLEMS AND SOFTWARE

AIRO2008

(Invited Session)

Chair: G. Bruno

Nitrodi Room

Time: 16.00 - 18.00

- TTPS.1 *TransCAD® e TransModeler®: software for transportation planning*
G. D'Alessandro, S. Perelli
- TTPS.2 *Latest approach to adaptive traffic control*
G. Canepari, C. Di Taranto

ORNGN - OR CHALLENGES IN NEXT GENERATION NETWORKS

AIRO2008

(Invited Session)

Chair: G. Oriolo

Serapide Room

Time: 16.00 - 18.00

- ORNGN.1 *Routing optimization of networks based on multiple spanning trees*
A. de Sousa, D. Santos, F. Alvelos
- ORNGN.2 *Carrier class support on ethernet*
I. Bartoli, L. Vellante, P. Iovanna, R. Sabella, G. Oriolo, L. Sanità
- ORNGN.3 *On the complexity of resilient network optimization problems*
M. Zotkiewicz, M. Pioro, A. Tomaszewski
- ORNGN.4 *Optimal sequence of offers in mixed fee-consumption pricing packages*
M. Naldi, A. Pacifici
- ORNGN.5 *Optimal design of next generation networks*
A. Bley, R. Wessály

ECO - ECONOMICS

AIRO2008

Chair: E. Esposito

Bridge Room

Time: 16.00 - 18.00

- ECO.1 *Dynamic variational formulation of the oligopolistic market equilibrium problem*
A. Barbagallo
- ECO.2 *Technology practices of road haulage companies in southern Italy: an empirical assessment*
P. Evangelista, E. Esposito
- ECO.3 *Foreign direct investment (FDI) in China: analysis of a case study*
M. Falasco, M. Cardinali, E. Guzzini
- ECO.4 *Dynamic financial chain management*
L. Di Giacomo, G. Patrizi
- ECO.5 *The role of 3PLs Internet technology in supporting extended enterprise: an exploratory survey*
P. Evangelista, E. Esposito, E. Sweeney

Tuesday Sept. 9th 2008

EWGT2008

DNL - DYNAMIC NETWORK LOADING

Chair: M. di Gangi

Primavera Room

Time: 18.00 - 20.00

- DNL.1 *Stochastic dynamic network loading for travel time variability due to incidents*
R. Corthout, C. Tampère, B. Immers
- DNL.2 *A generic node model for unsignalized intersections in dynamic macroscopic simulation*
R. Corthout, C. Tampère, D. van OudHeusden, D. Cattrysse, B. Immers
- DNL.3 *Multi-modal mesoscopic simulation of dynamic network loading of transportation systems*
M. di Gangi
- DNL.4 *Traffic signal timing through a genetic algorithm using the general link transmission model*
G. Gentile, D. Tididi

EWGT2008

TIM - TRAVELLER INFORMATION MODELS

Chair: G. Bifulco

Nitrodi Room

Time: 18.00 - 19.30

- TIM.1 *Data fusion for updating information in modeling drivers. choice behavior*
M. Dell'Orco, D. Teodorovic
- TIM.2 *Specification and calibration of a Compliance Model for ATIS applications*
G.N. Bifulco, F. Simonelli, R. Di Pace
- TIM.3 *The effect of the compliance elasticity hypothesis on the simulation of ATIS effects on networks*
G.N. Bifulco, F. Simonelli, R. Di Pace

AIRO2008	NLO1 - NONLINEAR OPTIMIZATION 1 (PRIN Project Invited Session)
	Chair: M. Pappalardo
	Pitecusa Room Time: 8.30 - 10.00
NLO1.1	<i>On the solution of variational inequalities via incremental bundle methods</i> M. Gaudio, G. Giallombardo, G. Miglionico
NLO1.2	<i>A successive quadratic programming method for nonsmooth variational inequalities</i> I. Konnov, B. Panucchi, M. Passacantando
NLO1.3	<i>A descent method for nonsmooth variational inequalities via regularization</i> B. Panucchi, M. Pappalardo, M. Passacantando
NLO1.4	<i>Decomposition methods for generalized potential games</i> F. Facchinei, V. Piccialli, M. Sciandrone

AIRO2008	TNEP - TRAFFIC NETWORK EQUILIBRIUM PROBLEMS
	Chair: M. Florian
	Primavera Room Time: 8.30 - 10.00
TNEP.1	<i>A new look at path space algorithms for the network equilibrium problem</i> M. Florian, I. Constantin
TNEP.2	<i>Congestions and backward propagation of queues in road networks</i> A. Cutolo, R. Frattaruolo, R. Manzo
TNEP.3	<i>Weighted Traffic equilibrium problem: a way to integrate mobile technologies</i> A. Barbagallo, S. Giuffr�, S. Pia
TNEP.4	<i>The mixed behavior traffic network equilibrium problem</i> L. Scrimali

AIRO2008	MIP1 - MIXED INTEGER PROGRAMMING 1
	Chair: A. Lodi
	Nitrodi Room Time: 8.30 - 10.00
MIP1.1	<i>Finding mixed-integer linear solutions through non-linear programming</i> C. D'Ambrosio, M. Fischetti, A. Lodi, A. W�chter
MIP1.2	<i>A computational comparison of SOCP and linear formulations for the convex envelope of some functions arising in mixed-integer nonlinear programming</i> A. Frangioni, C. Gentile
MIP1.3	<i>Minimal infeasible subsystems and benders cuts</i> M. Fischetti, D. Salvagnin, A. Zanette
MIP1.4	<i>MILP techniques for solving hydro scheduling and unit commitment problem</i> A. Borghetti, C. D'Ambrosio, A. Lodi, S. Martello

Wednesday Sept. 10th 2008

AIRO2008

DBPM - DRIVER BEHAVIOR PREDICTIVE MODELS (Invited Session)

Chair: M. Dell'Amico

Serapide Room

Time: 8.30 - 10.00

- DBPM.1 *An application of support vector machines and hidden Markov models for cars' maneuvers recognition*
F. Lolli, S. Marzani, L. Minin, R. Montanari
- DBPM.2 *Driver distraction modelling following machine learning approaches*
F. Tango, L. Minin, S. Marzani, R. Montanari
- DBPM.3 *Driver activity assessment with a machine vision system*
M. Kutila, G. Bianimo, G. Markkula, N. Parra
- DBPM.4 *Algorithms to predictely identify the best manoeuvre*
M. Dalio, F. Biral, E. Bertolazzi

AIRO2008

EO - ENERGY OPTIMIZATION (PRIN Project Invited Session)

Chair: R. Musmanno

Bridge Room

Time: 8.30 - 10.00

- EO.1 *A stochastic short-term scheduling model for hydro power and wind power coordination*
M.T. Vespucci, M. Innorta, F. Maggioni, M. Bertocchi
- EO.2 *Multi-auction electricity bidding via multistage stochastic programming*
R. Musmanno, N. Scordino, C. Triki, A. Violi
- EO.3 *Reliability-based risk-metric computation for electricity trading*
R. García-Bertrand, A.J. Conejo, R. Mínguez
- EO.4 *Hybrid Lagrangian-MILP approaches for unit commitment problems*
A. Frangioni, C. Gentile, F. Lacalandra

INVITED LECTURE (IN PLENARY SESSION)

Chair: P. Festa

Pitecusa Room

Time: 10.30 - 11.30

Mauricio G.C. Resende *Algorithms for node placement in path-disjoint network monitoring*

Wednesday Sept. 10th 2008

AIRO2008	LOG2 - LOGISTICS 2 Chair: G. Improta	
	Pitecusa Room	Time: 11.30 - 13.30
LOG2.1	<i>An agent based approach for modelling location problems</i> G. Bruno, A. Genovese, G. Improta, A. Sgalambro	
LOG2.2	<i>A fixed charge network flow model for the optimization of distribution networks based on crossdocking</i> G. Bruno, G. Improta, A. Sgalambro, C. Vinti	
LOG2.3	<i>Inventory performance measures in a three stage supply chain with stochastic demand and replenishment times: the exponential case</i> M.J. Vidalis, V.A. Aggelis, S.I. Koukourmialos	
LOG2.4	<i>A note on "the single-vendor single-buyer integrated inventory problem with quality improvement and lead time reduction - minimax distribution-free approach"</i> S. van Volsem	
LOG2.5	<i>LOGICA: Tools and activities to support logistics and geographical marketing</i> D. Aponte, Z. D'Agostino	

AIRO2008	RNO - ROBUST NETWORK OPTIMIZATION (PRIN Project Invited Session) Chair: M. Fischetti	
	Primavera Room	Time: 11.30 - 13.30
RNO.1	<i>Chance constrained network design</i> A. Frangioni, F. Pascali, M.G. Scutellà	
RNO.2	<i>Network optimization structured models under uncertainty in engineering problems</i> M. Di Francesco, A. Manca, P. Zuddas	
RNO.3	<i>Single-source routing with concave costs</i> S. Fiorini, G. Oriolo, L. Sanità, D.O. Theis	
RNO.4	<i>Robust link congestion optimization under combined IS-IS and MPLS protocols models and experimental evaluation</i> D. Cherubini, A. Fanni, A. Frangioni, C. Murgia, M.G. Scutellà, P. Zuddas	
RNO.5	<i>Robustness through branch-and-cut and the uncertain set covering problem</i> M. Fischetti, M. Monaci	

AIRO2008	GT - GAME THEORY (Invited Session) Chair: S. Tijs	
	Nitrodi Room	Time: 11.30 - 13.30
GT.1	<i>Consensus in noncooperative dynamic games: a multi-retailer inventory application</i> D. Bauso, L. Giarré, R. Pesenti	
GT.2	<i>Inventory control in a supply chain with emergency shipments</i> J. Timmer	
GT.3	<i>Nash-Cournot and Stackelberg assumptions in partially cooperative situations</i> L. Mallozzi, S. Tijs	
GT.4	<i>Allocation rules incorporating interval uncertainty</i> M. Dall'Aglio, R. Branzei, S. Tijs	
GT.5	<i>Cooperative interval games</i> S. Tijs, S. Zeynep Alparslan Gok, R. Branzei	

Wednesday Sept. 10th 2008

AIRO2008

SCHED - SCHEDULING

Chair: L. Bianco

Serapide Room

Time: 11.30 - 13.30

- SCHED.1 *A recovering beam search approach to the discrete-time economic lot scheduling problem with setup carry-overs*
M. Ghirardi
- SCHED.2 *New decomposition-based algorithms for project scheduling problems under time/cost trade-off settings*
E. Klerides, E. Hadjiconstantinou
- SCHED.3 *Epidemic logistics: a deterministic resource scheduling model using the concept of deteriorating jobs*
C.P. Pappis, N. Rachaniotis, T. Dasaklis, N. Karacapilidis
- SCHED.4 *A branch-and-bound algorithm to minimize earliness and tardiness in a single machine scheduling problem*
D.P. Ronconi, M.S. Kawamura
- SCHED.5 *A new lower bound for the resource-constrained project scheduling problem with generalized precedence relations*
L. Bianco, M. Caramia

AIRO2008

STOCH - STOCHASTIC OPTIMIZATION

Chair: M. Bertocchi

Bridge Room

Time: 11.30 - 13.30

- STOCH.1 *Uncertainty models and solution of dynamic optimization problems in financial applications*
G. Consigli, G. Iaquinta
- STOCH.2 *A decision support system for risk management*
P. Beraldi, A. Violi
- STOCH.3 *A single-sink transportation problem: stochastic optimization models*
F. Maggioni, M. Kaut, L. Bertazzi
- STOCH.4 *Structural properties of stochastic dynamic concave optimization problems and approximations of the value and optimal policy functions*
G. Gnecco, M. Sanguineti
- STOCH.5 *Stochastic second-order cone programming in mobile ad-hoc networks*
F. Maggioni, E. Allevi, M. Bertocchi, F. Potra

Wednesday Sept. 10th 2008

AIRO2008

LOG3 - LOGISTICS 3

Chair: P. Zuddas

Pitecusa Room

Time: 14.30 - 16.30

- LOG3.1 *Master bay plan problem: benchmark for different heuristic methods*
D. Ambrosino, D. Anghinolfi, M. Paolucci, A. Sciomachen
- LOG3.2 *An integrated berth allocation and quay crane assignment model*
R. van Schaeren, W. Dullaert, B. Raa
- LOG3.3 *The Tactical Berth Allocation Problem (TBAP) with quay crane assignment and transshipment-related quadratic yard costs*
G. Giallombardo, L. Moccia, M. Salani, I. Vacca
- LOG3.4 *Supporting street-turns by an optimization model*
M. Di Francesco, S. Orrù, P. Zuddas
- LOG3.5 *Measuring and optimizing congestion in container terminals*
M. Salani, I. Vacca, A. Vandale

AIRO2008

SPE - SYSTEM PERFORMANCE EVALUATION AND DEA

Chair: R. De Leone

Primavera Room

Time: 14.30 - 16.30

- SPE.1 *A data envelopment analysis (DEA) based system for the evaluation of environmental performance: an application to brick industries*
A. Bruno, M. Gaudio, G. Vinci
- SPE.2 *Warehouse benchmarking for assessing the impact of congestion*
E. Vreys, F. Cruijssen, B. De Borger, W. Dullaert
- SPE.3 *Evaluating efficiency in public transportation systems by using DEA methodology*
R. De Leone, E. Marchitto
- SPE.4 *Electoral traps*
B. Simeone

Wednesday Sept. 10th 2008

AIRO2008

GTP - GAME THEORY PRACTICE (Invited Session)

Chair: V. Fragnelli

Nitrodi Room

Time: 14.30 - 16.30

- GTP.1 *Using auctions to allocate chores*
L. Cioni
- GTP.2 *Combining shapley value and statistics to the analysis of gene expression data in children exposed to air pollution*
S. Moretti, D. van Leeuwen, H. Gmuender, S. Bonassi, J. van Delft, J. Kleinjans,
F. Patrone, D.F. Merlo
- GTP.3 *Electoral systems, multicameral cohesion majorities and europe*
G. Gambarelli
- GTP.4 *Game theory and natural resources allocation: contextualized or context free experiments?*
F. Patrone
- GTP.5 *Weighted bankruptcy rules and the museum pass problem*
B. Casas-Mendez, I. Garcia-Jurado, V. Fragnelli
- GTP.6 *A Cooperative Game Theory Approach to Water Pricing in a Complex Water Resources System*
D. Deidda, J.A. Alvarez, M.Á. Pérez Martín, G.M. Sechi, R. Zucca, P. Zuddas

AIRO2008

COIP - COMBINATORIAL OPTIMIZATION AND INTEGER PROGRAMMING

Chair: G. Lancia

Serapide Room

Time: 14.30 - 16.30

- COIP.1 *Cutting planes for surveying italian agriculture and industry*
R. Bruni, F. Bianchi, G. Bianchi, A. Reale
- COIP.2 *Extended formulations for some 0-1 symmetry-breaking polytopes*
Y. Faenza, V. Kaibel
- COIP.3 *A randomized multistart rank-2 algorithm for Max-Cut*
P. Festa, M.G.C. Resende
- COIP.4 *Can pure cutting plane algorithms work?*
A. Zanette, M. Fischetti, E. Balas
- COIP.5 *Local search inequalities,*
G. Lancia, F. Rinaldi, P. Serafini

Wednesday Sept. 10th 2008

AIRO2008

ORLS - OR AND LIFE SCIENCES

Chair: G. Romanin-Jacur

Bridge Room

Time: 14.30 - 16.30

- ORLS.1 *Composing medical crews with equity and efficiency*
R. Aringhieri
- ORLS.2 *Optimization models for the management of week-hospital patients*
D. Conforti, F. Guerriero, R. Guido, M.L. Conforti
- ORLS.3 *Construction of constant GC-content DNA codes via a heuristic algorithm*
R. Montemanni, D.H. Smith
- ORLS.4 *An interactive simulator for the "118" service in Milan*
A. Pagliosa, A. Pinciroli, G. Righini, G. Sesana
- ORLS.5 *Pregnancy-birth course in italian regions: a flexible simulation model*
A. Barella, P. Facchin, G. Romanin-Jacur

EWGT2008

TES - TRAFFIC ESTIMATION AND SIMULATION

Chair: H. Wakabayashi

Primavera Room

Time: 17.00 - 18.30

- TES.1 *Feasibility of a learning-machine speed control approach for ACC applications*
G.N. Bifulco, F. Simonelli, R. Di Pace
- TES.2 *Dynamic shortest path algorithm on bi-level transport networks*
L. Meschini
- TES.3 *Travel time variation and travel time reliability indexes for highway users and Administrators*
H. Wakabayashi

EWGT2008

PP - PLANNING POLICIES

Chair: R. de Lima Júnior

Nitrodi Room

Time: 17.00 - 19.00

- PP.1 *A fuzzy set based decision support system for planning road transport of hazardous materials*
L. Tangari, M. Ottomanelli, D. Sassanelli
- PP.2 *Traffic safety on Turkish highways*
G.E. Gurcanli, H.B. Celikoglu
- PP.3 *A multi-criteria meta-heuristic for territories alignment*
P.C. R. de Lima Junior, J.F. de Sousa, J. Barros Basto
- PP.4 *Sustainable tool problem optimization*
B. Beltran, S. Carrese

AIRO2008	NLO2 - NONLINEAR OPTIMIZATION 2 (PRIN Project Invited Session)	
	Chair: M. Gaudioso	
	Pitecusa Room	Time: 8.30 - 10.00
NLO2.1	<i>Some results on quadratic model-based interpolation algorithms for derivative-free optimization</i> G. Fasano, J.L. Morales, J. Nocedal	
NLO2.2	<i>Sequential penalty derivative-free methods for nonlinear constrained optimization</i> G. Liuzzi, S. Lucidi, M. Sciandrone	
NLO2.3	<i>Starting-Point Strategies for Potential Reduction Methods</i> S. Cafieri, M. D'Apuzzo, V. De Simone, D. di Serafino	
NLO2.4	<i>Concave programming for minimizing the zero-norm over polyhedral sets</i> F. Rinaldi, F. Schoen, M. Sciandrone	

AIRO2008	RWO - RAILWAY OPTIMIZATION (Invited Session)	
	Chair: P. Toth	
	Primavera Room	Time: 8.30 - 10.00
RWO.1	<i>Non-cyclic train timetabling and comparability graphs</i> V. Cacchiani, A. Caprara, P. Toth	
RWO.2	<i>Dynamic recoverable robustness for optimization problems in railways</i> G. Di Stefano	
RWO.3	<i>A service design problem for a railway corridor</i> A. Caprara, E. Malaguti, P. Toth	
RWO.4	<i>A quantitative approach to the definition of the line scheme configuration for a subway</i> F. Di Maio, L. Marongiu, D. Pennino, M.E. Nenni	

AIRO2008	CSR - CREW SCHEDULING AND ROSTERING	
	Chair: F. Pezzella	
	Nitrodi Room	Time: 8.30 - 10.00
CSR.1	<i>Algorithmic improvements in solving real vehicle and crew scheduling problems</i> F. Bernazzani, S. Carosi, A. Gaffi, L. Girardi, A. Frangioni	
CSR.2	<i>A decomposition approach to the integrated vehiclecrew-rostering problem</i> M. Mesquita, M. Moz, A. Paias, M. Pato	
CSR.3	<i>A column generation approach for the multiple depot crew scheduling problem: A case study</i> F. Marinelli, F. Pezzella, R. Rosetti	
CSR.4	<i>A new approach for solving the crew scheduling and rostering problem for long-distance bus drivers using metaheuristics</i> V. Vera Valdés	

AIRO2008

PT - PATHS AND TREES

Chair: F. Della Croce

Serapide Room

Time: 8.30 - 10.00

- PT.1 *A reverse algorithm for the tricriterion shortest path problem*
L.L. Pinto, C.T. Bornstein, N. Maculan
- PT.2 *Heuristic and exact approaches to the quadratic minimum spanning tree problem*
R. Cordone, G. Passeri
- PT.3 *The Steiner tree problem with delays: formulation and reduction procedures*
V. Leggieri, M. Haouari, S. Layeb, C. Triki
- PT.4 *Optimizing security investments in shortest-path networks*
P. Cappanera, M.P. Scaparra

AIRO2008

NLO3 - NONLINEAR OPTIMIZATION 3 (PRIN Project Invited Session)

Chair: F. Schoen

Pitecusa Room

Time: 10.30 - 12.00

- NLO3.1 *The repulsive assignment problem*
M. Gaudioso, L. Moccia, M.F. Monaco
- NLO3.2 *Application of real-coded genetic algorithms to gravitational wave detection*
D. di Serafino, S. Gomez, L. Milano, G. Toraldo, F. Riccio
- NLO3.3 *A multi-stage method for the sensor localization problem*
A. Cassioli, F. Schoen, M. Sciandrone
- NLO3.4 *A convergent hybrid decomposition algorithm model using second order information for SVM training*
S. Lucidi, L. Palagi, A. Risi, M. Sciandrone

AIRO2008

SS - STABLE SET (Invited Session)

Chair: S. Smriglio

Primavera Room

Time: 10.30 - 12.00

- SS.1 *The stable set problem on claw-free graphs*
G. Oriolo, U. Pietropaoli, G. Stauffer
- SS.2 *On the stable set polytope of claw-free graphs*
U. Pietropaoli, A. Wagler
- SS.3 *The stable set polytope of graphs with stability number three*
A. Pêcher, A. Wagler
- SS.4 *Linear relaxations for the maximum stable set problem: a computational study*
M. Giandomenico, F. Rossi, S. Smriglio, A.N. Letchford

Thursday Sept. 11th 2008

AIRO2008

MIP2 - MIXED INTEGER PROGRAMMING 2 (Invited Session)

Chair: P. Avella

Nitrodi Room

Time: 10.30 - 12.00

- MIP2.1 *A cutting plane approach to cardinality and 0-norm optimization*
S. Canale, I.R. de Farias, JR., M. Zhao
- MIP2.2 *Computational testing of exact mixed knapsack separation for MIP problems*
P. Avella, M. Boccia, I. Vasilyev
- MIP2.3 *On the value function of a mixed integer linear program*
T. Ralphs

AIRO2008

PS - PLANNING AND SCHEDULING (Invited Session)

Chair: A. Agnetis

Serapide Room

Time: 10.30 - 12.00

- PS.1 *Improving the preemptive bound for the single machine min-max lateness problem subject to release times*
F. Della Croce, V. T'Kindt
- PS.2 *Scheduling unreliable activities in unsupervised systems title*
A. Agnetis, P. Detti, M. Pranzo, M.S. Sodhi
- PS.3 *Coordinating stakeholders in a fashion supply network*
M. Flamini, V. Gammieri, G. Nicosia, A. Pacifici, S. Vegliani
- PS.4 *Speeding up a rollout algorithm for complex parallel machine scheduling*
M. Pranzo, M. Ciavotta, C. Meloni

AIRO2008

DM - DATA MINING (Invited Session)

Chair: G. Felici

Pitecusa Room

Time: 12.00 - 13.30

- DM.1 *Integer programming models for feature selection problems*
P. Bertolazzi, G. Felici, P. Festa
- DM.2 *Classifying emergency medical services through data mining procedures*
A. Testi, E. Ivaldi, G. Paoli
- DM.3 *Box Clustering and two new classes of graphs for logic mining*
E. Boros, F. Ricca, B. Simeone, V. Spinelli
- DM.4 *Combining discrete SVM and fixed cardinality warping distances for multivariate time series classification*
C. Orsenigo, C. Vercellis

Thursday Sept. 11th 2008

AIRO2008

TN - TELECOMMUNICATION NETWORKS

Chair: C. Mannino

Primavera Room

Time: 12.00 - 13.30

- TN.1 *Models and bounds for the two level hierarchical facility location problem*
B. Addis, G. Carello, A. Ceselli
- TN.2 *A power-indexed formulation for WiMAX network Planning*
F. D'Andreagiovanni, C. Mannino, A. Sassano
- TN.3 *Efficient and fair routing for ad-hoc telecommunication networks*
A. Lodi, E. Malaguti, N.E. Stier-Moses
- TN.4 *Telecommunication networks with sources and destinations: analysis and optimization*
C. De Nicola, R. Manzo, L. Rarità

AIRO2008

ND - NETWORK DESIGN

Chair: M. Caramia

Nitrodi Room

Time: 12.00 - 13.30

- ND.1 *A bilevel optimization approach for a hazmat network design problem*
L. Bianco, M. Caramia, S. Giordani
- ND.2 *An optimization model for the service network design problem*
I. Isametdinov, A. Martyushev, S. Yurkevich
- ND.3 *An application of network design with orientation constraints*
A. Caprara, J. Schweizer, E. Traversi
- ND.4 *A fully distributed lagrangean metaheuristic for a P2P overlay network design problem*
M.A. Boschetti, V. Maniezzo, M. Roffilli

AIRO2008

TSP - TRAVELLING SALESMAN PROBLEM

Chair: G. Ghiani

Serapide Room

Time: 12.00 - 13.30

- TSP.1 *The bi-objective travelling salesman with profits on trees*
S. Coene, C. Filippi, F.C.R. Spieksma, E. Stevanato
- TSP.2 *A heuristic approach for the asymmetric TSP with time-dependent traveling time*
J.F. Cordeau, G. Ghiani, E. Guerriero
- TSP.3 *Real-time insertion and sample scenario planning for the dynamic and stochastic travelling salesman problem*
G. Ghiani, E. Manni, B.W. Thomas
- TSP.4 *A 0-1 LP Model for the traveling tournament problem*
G. Lancia, P. Serafini

AIRO2008 AND EWGT2008 CLOSING SESSION

Pitecusa Room

Time: 13.30 - 14.30

M. Bielli, P. Festa, and A. Sforza

Final Remarks