"Ettore Majorana" Centre for Scientific Culture

International School of Mathematics "G. Stampacchia"

46th Workshop

New Problems and Innovative Methods in Nonlinear Optimization

July 31 – August 9, 2007

Erice, Italy

List of invited and contributed lectures

Invited lectures

I. M. Bomze
Recent developments in copositive programming

M. D'Apuzzo
Mutual Impact of Numerical Linear Algebra and Large-Scale Optimization

C. A. Floudas
Deterministic Global Optimization: Advances in Convex Underestimation Methods and Applications

W. Hager
Multilevel Quadratic Programming Techniques for Graph Partitioning

I. V. Konnov
Solution Methods for Multi-valued Variational Inequalities

S. Lucidi
New DIRECT-type algorithms for global optimization problems

J. M. Martínez
Practical Augmented Lagrangian Methods

J.-S. Pang
On the global solution of linear programs with linear complementarity constraints

M. Pappalardo
Equilibrium problems of variational type: models, methods and algorithms

P. M. Pardalos
Analysis of Greedy Approximation with Non-submodular Potential Functions

D. Ralph
Revisiting convergence of SAA/SPO methods for two stage stochastic programs

F. Schoen
Large Scale Global Optimization in practice

D. Sun *The Role of Metric Projectors in Nonlinear Conic Optimization Problems*

M. Teboulle *A Convex Optimization Approach for a Class of Nonconvex Quadratic Estimation Problems*

L. N. Vicente
A globally convergent primal-dual interior-point filter method for nonlinear programming (ipfilter): new filter optimality measures and computational results

H. Wolkowicz
Strong Duality and Stability in Conic Convex Optimization

Y. Ye
Semidefinite Programming Relaxation Model for Graph Realization and Sensor Network Localization

Y. Yuan
Subspace Techniques for Nonlinear Optimization

Contributed lectures

P. Absil
Vector transport on nonlinear manifolds

K. Allali
Approximate subdifferentials of marginal functions: the Lipschitzian case
G. Bigi
Outer approximation algorithms for canonical DC problems

A. Cassioli
Dissimilarity measures for population–based global optimization algorithms

V. De Simone
ESOPO: an Environment for Solving Optimization Problems Online

G. Di Pillo
A truncated Newton method in an augmented Lagrangian framework for nonlinear programming

G. Eichfelder
Multiobjective bilevel optimization

F. Facchinei
Title to be communicated

G. Giallombardo
Incremental methods for nonsmooth convex optimization

G. Liuzzi
A derivative–free algorithm for inequality constrained optimization problems

M. Locatelli
Improving the Lovasz–Schrijver bound by copositive cuts

G. Nicosia
Multi–objective optimization for circuit design problem and protein structure prediction

B. Panicucci
Descent methods for generalized variational inequalities via gap functions

M. Passacantando
Equivalent unconstrained optimization problems for generalized variational inequalities

G. Patrizi
Simultaneous estimation and optimization of empirical processes by generalized variational inequalities

A. Pelliccioni
Deterministic and neural network model: a successful application for the air dispersion model

V. Piccialli
An unconstrained minimization method for solving low rank SDP relaxations of the max cut problems

L. Prigozhin
Unbalanced L1 Monge–Kantorovich problem

A. Risi
A class of decomposition methods for SVM training

M. Roma
Iterative computation of approximate inverse preconditioner for nonconvex unconstrained optimization

E. Sachs
On the role of adjoints in finance

N. Sukhorukova
Uniform approximation by polynomial splines of the highest defect: necessary and sufficient optimality conditions and their generalisations

J. Ugon
Optimisation approach to clustering: the choice of a similarity function

L. Velazquez
A hybrid optimization approach for solving automated parameter estimation problems

A. Zorin
Complex filtering schemes in experimental data estimation