

“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*