# The 10th International Conference on Numerical Optimization and Numerical Linear Algebra

August 5-8, 2015

# YANAN, SHAANXI, CHINA

# Conference Schedule

# August 5, Wednesday

08:30-09:00 Opening Ceremony

08:30-08:45 Welcome Address 08:45-09:00 Group Photo

09:00-10:20 Invited Talks V1

Chair: Y.X. Yuan

**09:00-09:40** Oleg Burdakov, A Reduction of Cardinality to Comlementarity in Sparse Optimization

**09:40-10:20 Zhaojun Bai**, Rayleigh Quotient-type Optimizations and Eigenvalue Problems

10:20-10:40 Coffee Break

10:40-12:00 Invited Talks V2

Chair: Xiaojun Chen

10:40-11:20 Micheal Ulbrich, Constrained Optimization with Low-Rank Tensors and Applications to Problems with PDEs under Uncertainty

11:20-12:00 Stefan Ulbrich, Multilevel Methods for PDE-constrained Optimization Based on Adaptive Discretizations and Reduced Order Models

12:00-13:30 Lunch

# 13:30-14:50 Invited Talks V3

Chair: Zhaojun Bai

13:30-14:10 Xiaojun Chen, Sparse Solutions of Linear Complementarity
Problems

**14:10-14:50 Tiande Guo**, Algorithms for Fingerprint Recognition Based on Deep Learning

14:50-15:30 Hongchao Zhang, Projection on a Polyhedron

# 15:30-15:50 Coffee Break

### 15:50-17:10 Contributed Talks C1

Chair: Stefan Ulbrich

**15:50-16:10 Thorsten Koch**, The DIMACS Steiner Tree Implementation Challenge

**16:10-16:30 Zaikun Zhang**, A Subspace Decomposition Framework for Non-linear Optimization

16:30-16:50 Cong Sun, Algorithm for Special Structured Matrix Optimization Problem

16:50-17:10 Qingna Li, Unique Decomposition and New Models for the Ground Moving Target Indication Problem

#### 17:10-18:30 Contributed Talks C2

Chair: Micheal Ulbrich

17:10-17:30 Anwa Zhou, The CP-matrix Completion Problem

17:30-17:50 Li Shen, Inexact Indefinite Proximal ADMMs for 2-block Separable Convex Programs and Applications to 4-block

**18:10-18:30 Huan Gao**, The Selection of Parameter for a Class of Non-smooth Convex Problems Based on AD

### 18:30 Dinner

# August 6, Thursday

#### 09:00-10:20 Invited Talks V4

Chair: Yuhong Dai

**09:00-09:40** Yinyu Ye, On the Convergence of Alternating Direction Method of Multiplier for Linearly Constrained Convex Optimization with Coupled Quadratic Objective

 $\mathbf{09:40\text{-}10:20}$  Shiqian Ma, Some New Results on the Convergence of Multi-Block ADMM

#### 10:20-10:40 Coffee Break

#### 10:40-12:00 Contributed Talks C3

Chair: Yinyu Ye

10:40-11:00 Liwei Zhang, Convergence Analysis of A Modified Levenberg-Marquardt Method for Semismooth Equations

11:00-11:20 Leqin Wu, A Matrix Framework Approach to Solve a High-Deminsional Inverse Problem

11:20-11:40 Ran Gu, A Partial First Order Affine Scaling Method

11:40-12:00 Qian Dong, A Parallel Line Search Subspace Correction Method for Composite Convex Optimization

#### 12:00-13:30 Lunch

#### 13:30-14:30 Contributed Talks C4

Chair: Oleg Burdakov

13:30-13:50 Gonglin Yuan, A Modified PRP Method for Large-scale Non-linear Equations

13:50-14:10 Xinzhen Zhang, Real Eigenvalues of Nonsymmetric Tensors

14:10-14:30 Tingting Wu, Two-Step Methods for Image Zooming Using Duality Strategies

#### 14:30-15:30 Contributed Talks C5

Chair: Tiande Guo

14:30-14:50 Le Han, Convex Relaxation Algorithm for A Structured Simultaneous Low-rank and Sparse Recovery Problem

14:50-15:10 Shujun Bi, Error Bounds for Several Classes of Rank Constrained Optimization Problems and Applications

15:10-15:30 Bo Jiang,  $L_p$  Regularization for Optimization over Permutation Matrices

# 15:30-15:50 Coffee Break

# 15:50-16:50 Contributed Talks C6

Chair: Hongchao Zhang

- **15:50-16:10 Zhibao Li**, Beamformer Configuration Design in Reverberant Environments
- **16:10-16:30 Sanfu Wang**, To Structure The Dictionary of Image Sparse Expression by Using The Bregman Algorithm
- 16:30-16:50 Yanfei Cao, The Retainability Between the Second Beginning of Magic Square Matrix and The Generalized Product of Kronecker

#### 16:50-17:50 Contributed Talks C7

Chair: Shiqian Ma

- 16:50-17:10 Shu Wang, On Low-Rank Solution of Semidefinite Programming and its Applications in Quadratic Constrained Quadratic Programming
- 17:10-17:30 Cheng Chen, A Subspace Multilevel Method for Nonlinear Optimization
- 17:30-17:50 Dong Kang, New Strategies of Stochastic RBF Method for Expensive Black-box Global Optimization

# 17:50-18:30 Invited Talks V5

Chair: Xin Liu

17:50-18:30 Nelson Maculan, Applications of Mixed Integer Nonlinear Programming (MINLP): the Euclidean Steiner Tree Problem and Covering a Solid with Different Spheres

# 18:40-21:00 Conference Banquet