

**THE FIRST
INTERNATIONAL
CONFERENCE
ON NUMERICAL ALGEBRA
AND
SCIENTIFIC COMPUTING
(NASC06)**

(<http://lsec.cc.ac.cn/~NASC06/>)

Institute of Computational Mathematics

October 22–25, 2006

PROGRAM

OCTOBER 21 (SATDAY) REGISTRATION and RECEPTION

- 15:00-17:30 REGISTRATION
Place: The Reception Hall of Tian-Chuang Hotel
- 18:00- RECEPTION DINNER
Place: Jade Palace Hotel
(In Coffeeshop on the 2nd Floor)

OCTOBER 22 (SUNDAY)
OPENING CEREMONY AND LECTURES

8:30-9:00	OPENING CEREMONY
9:00-9:15	PHOTO
9:15-10:35	INVITED TALKS Chairperson: Zhong-Ci Shi
9:15-9:55	G.H. Golub: Solving Least Square Problems
9:55-10:35	I.S. Duff: Design and Use of a Sparse Direct Solver for Skew-Symmetric Systems
10:35-10:45	TEA BREAK
10:45-12:05	INVITED TALKS Chairperson: Gene H. Golub
10:45-11:25	M. Benzi: An Augmented Lagrangian Approach for the Navier-Stokes Equations
11:25-12:05	M.H. Gutknecht: A Simpler Presentation of Simpler GMRES
12:05-14:00	LUNCH (The 4th Floor of Wu-Ke Restaurant)
14:00-15:40	CONTRIBUTED TALKS Chairperson: Lothar Reichel
14:00-14:25	G.V. Muratova: Multigrid Method for Solving Convection-Diffusion Problems with Dominant Convection
14:25-14:50	E.-X. Jiang: An Algorithm for Solving Shifted Skew-Symmetric System
14:50-15:15	L.-Z. Lu: Restarted GMRES Method Augmented with the Combination Harmonic Ritz Vectors and Error Approximations
15:15-15:40	Y.-F. Su: A Structure-Preserving Algorithm for Computing a Few Eigenpairs
15:40-15:50	TEA BREAK
15:50-17:05	CONTRIBUTED TALKS Chairperson: Raymond H. Chan
15:50-16:15	S.-F. Xu: Updating Quadratic Models with No Spill-Over
16:15-16:40	H. Dai: On Generalized Inverse Eigenvalue Problems
16:40-17:05	J.-G. Xue: Tail Probability of Queue Length of Low-Priority Customers in a Nonpreemptive Priority MAP/PH/1 Queue
17:05-17:20	TEA BREAK
17:20-18:00	ANA Prize Session Chairperson: Zhao-Jun Bai
17:20-17:40	Candidate A:
17:40-18:00	Candidate B:
18:30	DINNER Place: Guolin Restaurant
20:30-	SELECTION OF APPL. NUMER. ALGEBRA PRIZE Place: Room 301, Sci./Tech. Complex Building Panel Chairs: I.S. Duff, G.H. Golub, Z.-C. Shi

OCTOBER 23 (MONDAY)

LECTURES

8:30-10:30	INVITED TALKS Chairperson: Iain S. Duff
8:30-9:10	A.J. Wathen: Block Preconditioning and Iterative Solution Methods for Incompressible Fluid Flow
9:10-9:50	K. Hayami: GMRES Methods for Least Squares Problems
9:50-10:30	Zhao-Jun Bai: A Two-Dimensional Arnoldi Algorithm for Model Order Reduction of Parameterized Linear Dynamical Systems
10:30-10:40	TEA BREAK
10:40-12:00	INVITED TALKS Chairperson: Andrew J. Wathen
10:40-11:20	R.H. Chan: A Unified Tight Frame Approach for Missing Data Recovery in Images
11:20-12:00	Q. Ye: Eigenvalue Problems and the LTSA Algorithm for Nonlinear Dimensionality Reduction
12:00-14:00	LUNCH (The 4th Floor of Wu-Ke Restaurant)
14:00-15:40	CONTRIBUTED TALKS Chairperson: Lev A. Krukier
14:00-14:25	T. Sogabe: Bi-Conjugate Residual Method for Nonsymmetric Linear Systems
14:25-14:50	F.-S. Bai: Computing Permanent and Permanental Polynomial
14:50-15:15	D.-L. Chu: Algebraic Characterizations for Positive Realness of Descriptor Systems
15:15-15:40	C.-G. Li: Eigenvalue Analysis of Some Pressure-Velocity Correction Algorithms for Incompressible Flow
15:40-15:50	TEA BREAK
15:50-17:30	CONTRIBUTED TALKS Chairperson: Ken Hayami
15:50-16:15	J.-F. Yin: A Class of Preconditioners Based on Incomplete Orthogonal Decomposition for Least Squares Problems
16:15-16:40	M.-S. Wei: On Stable Perturbations of Stiffly Weighted Least Squares Problems
16:40-17:05	W.-G. Gao: Eigenpair Calculation in Ab-initio Total Energy Minimization
17:05-17:30	S. Shu: A Two-Grid Descretization Method for 2-D Thermal Conduction Equations with Three Temperatures
18:00	BANQUET (INCLUDING ISSUE OF THE PRIZE) Place: Zhongyue-Building Restaurant

OCTOBER 24 (TUESDAY)

LECTURES

8:30-10:30	INVITED TALKS Chairperson: Martin H. Gutknecht
8:30-9:10	L. Reichel: Iterative Methods for Inverse Problems
9:10-9:50	J.-C. Sun: Parallel Preconditioners for Large Scale Partial Differential Equation Systems
9:50-10:30	E.G. Ng: Multithreading for Matrix Factorizations in a Distributed Memory Environment
10:30-10:40	TEA BREAK
10:40-12:00	INVITED TALKS Chairperson: Michele Benzi
10:40-11:20	L.A. Krukier: Skew-Symmetric Iterative Method for Solution of Transport-Dominated Convection-Diffusion Problems
11:20-12:00	L. Cvetkovic: H -Matrix Theory vs. Eigenvalue Localization
12:00-14:00	LUNCH (The 4th Floor of Wu-Ke Restaurant)
14:00-14:40	INVITED TALKS Chairperson: Esmond G. Ng
14:00-14:40	M.K. Ng: Matrix Computations and Image Processing
14:40-14:55	TEA BREAK
14:55-16:10	CONTRIBUTED TALKS Chairperson: Jia-Chang Sun
14:55-15:20	X.-P. Liu: Reduce Global Communication in Parallel Krylov Subspace Methods: A Survey
15:20-15:45	C.-H. Guo: Some Results on a Nonsymmetric Algebraic Riccati Equation
15:45-16:10	Y.-J. Wu: Modifications of Marder-Weitzner Method for Solving Nonlinear Eigenvalue Problems
16:10-16:20	TEA BREAK
16:20-17:35	CONTRIBUTED TALKS Chairperson: M.K. Ng
16:20-16:45	Y.-Z. Song: General Results on Improvement of Classical Iterative Method for M -Matrices
16:45-17:10	L.-J. Zhang: Parallel Two Level Sparse Approximate Inverse Based on Sherman-Morrison Formula
17:10-17:35	S.-J. Yang: Generalized Viete-Newton Theorem
17:35-17:45	TEA BREAK
17:45-18:00	CLOSING CEREMONY
18:30	DINNER Place: The 4th Floor of Wu-Ke Restaurant

OCTOBER 25 (WEDNESDAY)
EXCURSION

7:30-16:30	EXCURSION (To Badaling Great Wall)
7:30 (EXACT)	Buses Start from the gates of both Jade Palace Hotel and Tian-Chuang Hotel
18:00	DINNER Place: Zhongyue-Building Restaurant