Program

Morning, August 17 (Wednesday)

8:00	**Boarding bus at Magnolia Hotel**
8:30—8:45	**Opening Ceremony, Chairman: Tatsien Li**
8:45—9:00	**Group photo**

Plenary Session:

Chairman: Genghua Fan

9:00—10:00 **Speaker:** Gerard Jennhwa Chang

Title: Vogan diagrams and the classification of real simple Lie algebras

Lecture Hall

10:00—10:15	Tea Break

Yi Fu Building

Plenary Session:
Chairman: Shun-Jen Cheng

10:15—11:15 **Speaker:** Minoru Wakimoto

Title: Representation theory of W-algebras via quantum reduction
Chairman: Gavin Martin

11:15—12:15 **Speaker:** Shicheng Wang

Title: Solenoids in dynamics and in topology

12:15 **Lunch**   Dining Hall in the campus

Afternoon, August 17 (Wednesday)

	Lecture Hall, Yi Fu Building	**Room 602, School of Mathematical Sciences**	**Room 608, School of Mathematical Sciences**
	Invited Session:	Invited Session:	Invited Session:
	PDE and Applications	Lie Theory and Geometry	Low Dimensional Topology
	Chairman: J. X. Hong, Y. Zhou	**Chairman:** Shu-Jen Cheng, Q. S. Wu	**Chairman:** G. Martin, Zhi Lü
13:30—14:15	**Speaker:** Qin Han	**Speaker:** Eng Chye Tan	**Speaker:** Jie Wu
	Title: Local Isometric Embedding of Surfaces in R^3	**Title:** Toric Deformation of the GL (n)Tensors Product Algebra	**Title:** From braid groups to homo- topy groups
14:15—15:00	**Speaker:** Guan Bo	**Speaker:** Yucai Su	**Speaker:** Jonathan Hillman
	Title: Some fully nonlinear elliptic equations from geometric problems	**Title:** Lie bialgebras of generalized Witt type	**Title:** PD_4-complexes with stro -ngly minimal models
15:00—15:15	Tea Break		
	Invited Session:	Invited Session:	Invited Session:
	Algebra and Combinatorics	Lie Theory and Geometry	Low Dimensional Topology
	Chairman: Genghua Fan, Jia-Yu Shao	**Chairman:** Shun-Jen Cheng, Q. S. Wu	**Chairman:** G. Martin, Zhi Lü
15:15—16:00	**Speaker:** Akira Saito	**Speaker:** Aaron Phillips	**Speaker:** Gyo Taek Jin
	Title: Forbidden Subgraphs and Matchings in Graphs	**Title:** What's so great about the affine Hecke algebra?	**Title:** Marginal knots and strongly marginal knots
16:00—16:45	**Speaker:** Jia-Yu Shao	**Speaker:** Ruibin Zhang	**Speaker:** Gaven Martin

	Title: The determinantal regions of complex sign pattern matrices and ray pattern matrices	**Title:** Quantum Supergroups and Knot Invariants	**Title:** Quasiregular self Mappings of hyperbolic manifolds and the generalized Lichnerowicz Conjecture
17:00	Boarding bus at the School of Mathematical Sciences		

Morning, August 18 (Thursday)

	Lecture Hall, Yi Fu Building	**Room 602, School of Mathematical Sciences**	**Room 608, School of Mathematical Sciences**
8:00	**Boarding bus at Magnolia Hotel**		
	Invited Session:	Invited Session:	Invited Session:
	Algebra and Combinatorics	Lie Theory and Geometry	Nonlinear Analysis
8:45—9:30	**Chairman:** Genghua Fan, J. Y. Shao **Speaker:** Wenan Zang	**Chairman:** Shu-Jen Cheng, Q. S. Wu **Speaker:** Jae-Hoon Kwon	**Chairman:** C. Rogers, Z. X. Zhou **Speaker:** Decio Levi
9:30—10:15	**Title:** Bonds with Parity Constraints **Speaker:** Minchun Hong	**Title:** Crystal graphs For Lie superalgebras and Cauchy identity **Speaker:** :Eugene Xia	**Title:** Multiscale Analysys of discrete nonlinear equations **Speaker:** Wolfgang Schief
	Title: Infinitely many Equilibrium configurations of the liquid crystal system	**Title:** Dynamics of the mapping class group action on moduli spaces	**Title::** Integable discrete differential of plated membranes in equilibrium
10:15—10:30	Tea Break		
	Invited Session:	Invited Session:	Invited Session:
	Algebra and Combinatorics	Kinetic Theory	Complex Dynamical Systems
10:30—11:15	**Chairman:** Genghua Fan, J. Y. Shao **Speaker:** Cai Heng Li	**Chairman:** Tai-Ping Liu, W. K. Wang **Speaker:** Chiun-Chuan Chen	**Chairman:** Y. Nishiura, Q. Zhou **Speaker:** Bill Kalies
	Title: Factorisations of Almost Simple Groups	**Title:** Thermal Creep Flow for Linearized Boltzmann Equation	**Title:** An algorithmic Approach to Chain Recurrence
11:15—12:00	**Speaker:** Ko-Wei Lih	**Speaker:** Tong Yang	**Speaker:** Sharah Day
	Title: On an Interpolation Property of Graphs	**Title:** Boltzmann equation with external force and vlasov-Poisson-Boltzmann system in infinite vacuum	**Title:** A topological approach for computational studies of infinite-dimensional maps
12:15	Lunch		Dining Hall in the campus

Afternoon, August 18(Thursday)

	Lecture Hall, Yi Fu Building	**Room 602, School of Mathematical Sciences**	**Room 608, School of Mathematical Sciences**
	Invited Session:	Invited Session:	Invited Session:
	PDE and Applications	Kinetic Theory	Complex Dynamical Systems
13:30—14:15	**Chairman:** J. X. Hong, Y. Zhou **Speaker:** Xingbin Pan	**Chairman:** Tai-Ping Liu, W. K. Wang **Speaker:** Fraydoun Rezakhanlou	**Chairman:** Y. Nishiura, Q. Zhou **Speaker:** Thomas Wanner
	Title: On a Problem Related to Vortex Nucleation in3-Dimensional Superconductors **Speaker:** Daoming Cao	**Title:** Coagulation-Fragmentation Processes and Smoluchowski's Equation **Speaker:** Hiroshi Sugimoto	**Title:** Computational Approaches to Phase Separation Dynamics **Speaker:** Takashi Teramoto
14:15—15:00	**Title:** Multiscale-bump standing waves with a critical frequency for nonlinear Schr ¥"odinger equations	**Title:** Rarefied gas flows Induced by temperature Fields and their Applications。:	**Title:** Morphological Characterization of Diblock Copolymer Problem
15:00—15:15	Tea Break		
15:15—16:55	**Short Communications.** The groups and venues will be announced at the conference site.		

Evening, August 18 (Thursday)

17:00	**Boarding bus at the School of Mathematical Sciences**
18:00—20:00	**Conference Banquet at Yang Zhou Restaurant**
21:00—22:00	**Huangpu River Tour**

Morning, August 19 (Friday)

8:15	**Boarding bus at Magnolia Hotel** Plenary Session:	
8:45—9:45	**Chairman:** Tai-Ping Liu **Speaker:** Shih-Hsien Yu **Title:** From positive solution of Boltzman shock layer to wave-particle duality in Boltzmann equation for the construction of Green's function	
9:45—10:00	**Tea Break**	
	Plenary Session:	Lecture Hall Yi Fu Building
10:00—11:00	**Chairman:** Jiaxing Hong **Speaker:** Shuxing Chen **Title:** Multidimensional Shock Theory	
11:00—12:00	**Chairman:** Yasumasa Nishiura **Speaker:** Konstantin Mischaikow **Title:** Computational Homology in Nonlinear Dynamics	
12:15	**Lunch**	Dining Hall in the campus

Afternoon, August 19 (Friday)

	Lecture Hall, Yi Fu Building Invited Session: Complex Dynamical Systems	**Room 602, The School of Mathematical Sciences** Invited Session: Kinetic Theory	**Room 608, The School of Mathematical Sciences** Invited Session: Nonlinear Analysis
13:30—14:15	**Chairman:** Y. Nishiura, Q. Zhou **Speaker:** Makoto Iima **Title:** Collision of counter-propagating localized convection cells in binary fluid mixture	**Chairman:** Tai-Ping Liu, W. K. Wang **Speaker:** Seung-Yeal Ha **Title:** Initial-boundary Value problem for the Boltzmann equationg Near vacuum	**Chairman:** C. Rogers, Z. X. Zhou **Speaker:** Peter Vassiliou **Title:** Contact, Control, Integrable Systems
14:15—15:00	**Speaker:** Yasumasa Nishiura **Title:** Scattering among Particle - like patterns in Dissipative system	**Speaker:** Xuguan Lu **Title:** On the Boltzmann Equation for Fermi-Dirac Particles with Very Soft Potentials	**Speaker:** Liqun Qi **Title:** Eigenvalues of Tensors and Their Applications
15:00—15:15	Tea Break		
	Invited Session: Asymptotic Problems	Invited Session: Applied Differential Geometry	Invited Session: Nonlinear Analysis
15:15	**Chairman:** R. Wong, W. Y. Qiu **Speaker:** Walter Van Assche	**Chairman:** P. G. Ciarlet, Q. Ding **Speaker:** Robert Jerrard	**Chairman:** C. Rogers, Z. X. Zhou **Speaker:** Kenji Kajiwara

—16:00

	Title: Quadratic Hermite Approximation to the Exponential function	**Title:** Refined Jacocobian Estimates and vortex Dynamics for the gross-Pitayevski equation	**Title:** Symmetries and Hyper-geometric solution for the Painlev equations
16:00 —16:45	**Speaker:** Pavel Bleher	**Speaker:** Liliana Gratie	**Short Communications.**
	Title: The large *N* limit in random matrix models: the Riemann-Hilbert approach	**Title:** Intrinsic linear shell equations	The groups and venues will be announced at the conference site
17:00	**Boarding bus at the School of Mathematical Sciences**		

Morning, August 20 (Saturday)

8:15	**Boarding bus at Magnolia Hotel**		
	Lecture Hall, Yi Fu Building	**Room 602, The School of Mathematical Sciences**	**Room 602, The School of Mathematical Sciences**
	Invited Session:	Invited Session:	Invited Session:
	Low Dimensional Topology	Applied Differential Geometry	Asymptotics Problems
8:45—9:30	**Chairman:** G. Martin, Zhi Lü **Speaker:** Hitosh Murakami	**Chairman:** P. G. Ciarlet, Q. Ding **Speaker:** Sheng Zhang	**Chairman:** R. Wong, W. Y. Qiu **Speaker:** Adri Olde Daalhuis
	Title: Asymptotic behaviors of the colored Jones polynomials	**Title:** Mathematical modeling of elastic arches and shape finding of stiff arches	**Title:** Exponential asympototic of nonlinear ODEs and PDEs; Part I
9:30—10:15	**Speaker:** Kee Yuen Lam	**Speaker:** Tomohiro Yanao	**Speaker:** Christopher Howls
	Title: <u>The Kervaire Invariant Problem in the Homotopy Theory of Spheres</u>	**Title:** <u>Geometric Effects in Structural Isomerization Dynamics of Atomic Clusters</u>	Title: Exponential asymptotics for nonlinear ODEs and PDEs: part II:
10:15—10:30	Tea Break		
	Invited Session:	Invited Session:	Invited Session:
	PDE and Applications	Applied Differential Geometry	Asymptotics Problems
10:30—11:15	**Chairman:** J. X. Hong, Y. Zhou **Speaker:** Gen Nakamura	**Chairman:** P. G. Ciarlet, Q. Ding **Speaker:** Pascal Frey	**Chairman:** R. Wong, W. Y. Qiu **Speaker:** Arno Kuijlaars
	Title: Reconstruction of inclusions for the inverse boundary value problem for non-stationary heat equation	**Title:** Anisotropic Delaunay mesh adaptation for numerical simulations	**Title:** Riemann-Hilbert Methods in random matrix theory
11:15—12:00	**Speaker:** Zhang Ping	**Speaker:** Crisitinel Mardare	**Speaker:** Zhao Yuqiu
	Title: Infinitely many equilibrium configurations of the liquid Crystal system	**Title:** Continuity of an immersion in H^1 as a function of its metric tensor in L^1	**Title:** On a uniform Treatment of Darboux's method
12:15	**Lunch**		Dining Hall in the campus

Afternoon, August 20 (Saturday)

City Tour (Shanghai Museum or Yu Yuan Garden)

13:30 Boarding bus at The School of Mathematical Sciences

August 21 (Sunday)

8:15	**Boarding bus at Magnolia Hotel**
8:45—9:45	Plenary Session:

Chairman: R. Miura

Speaker: Roderick Wong

Title: A Panoramic View of Asymptotics

9:45—10:00	Tea Break

Plenary Session:

10:00—11:00 **Chairman:** Roderick Wong

Speaker: Colin Rogers

Title: Hidden Integrability in Gasdynamics Tzitzeica Vortex Streets and their Reciprocals

11:00—12:00 **Chairman:** Tatsien Li

Speaker: Philippe G. Ciarlet

Title: A surface viewed as a function of its two fundamental forms

Lecture Hall

Yi Fu Building

12:15 **Lunch** Dining Hall in the campus

13:15 **Boarding bus at Yi Fu Building**