



Announcement

Canellation of Plenary Lecture

The plenary lecture of Kirwan, Frances C., has been cancelled. Aug. 23, 11:15–12:15, CH01.

Reception for IMU Delegates

On the occasion of the designation of Spain as organizer of the ICM 2006, the Spanish IMU Committee is pleased to invite the Delegates of the IMU General Assembly, together with highest representatives of national mathematical societies, to a cocktail to be served at the Banquet Hall of Continental Grand Hotel today (August 23rd) at 19:30.

Cultural Performance by Chinese Song and Dance Ensemble

Date/Time: Friday, August 23rd, 19:30–21:30

Venue: Convention Hall No.1, BICC (Second Floor)

Description: Featuring Chinese folk music, songs and dances, including Chinese traditional musical instruments such as the ancient *zeng* and *pipa*. The performance also includes tenors and sopranos, acrobatic show and excerpts of Peking Opera.

Fees: Free of charge.

Scientific Program – Editorial Changes

Public Talk by Wu Wen-Tsun

Date: Tuesday, August 27, 2002, 14:00 (P.41).

Venue: Exhibition Hall of Chinese Science and Technology \Rightarrow China Science and Technology Museum, 1 Bei San Huan Zhong Lu, Beijing.

Title: On the Development of Real number system in Ancient Chinese Mathematics \Rightarrow On the development of real number system in ancient China.

Plenary Lecture

The chair of Noga Alon's lecture is changed: Gowers, Williams T. (University of Cambridge, United Kingdom), on Aug. 23, 8:30–9:30, CH01.

10. Probability and Statistics

Invited speaker K. Johansson's chair is changed: Chung, Dong-Myung (Sogang University, Korea), Aug. 24, 15:00–15:45, CH01.

Scientific Program – Changes

Correction to the 2nd Daily News:

Short talk is changed to Poster (in Section 5): Namdari, Mehrdad (Shahid Chamran University of Ahvaz, Iran), *Algebraic properties of $C_\infty(X)$* , From Aug. 24, 14:45–15:00, R3051 \Rightarrow Aug. 24, 16:15–17:15, EH02.

7. Lie Groups and Representation Theory

The chair of Eckhard Meinrenken's lecture is changed: Zhao, Kaiming, (AMSS, CAS, China), Aug. 23, 17:15–18:00, CH17B.

8. Real and Complex Analysis

Short Talk: Sukhotin, Alexander Mikhailovich, From Aug. 27, 14:45–15:00, R3051 \Rightarrow **Poster:** Aug. 24, 17:00–17:15, R5015.

9. Operator Algebras and Functional Analysis

Niknam, Assadollah (Ferdowsi University of Mashad, Iran), From Aug. 27, 14:45–15:00, R3051 \Rightarrow Aug. 24, 14:25–14:40, R5015.

10. Probability and Statistics

Short Talk: Wei, Li (Nankai University, China), *Upper bounds estimation on the*

probability of ruin with variable premium rate and disturbed by diffusion in a Markovian environment, Aug. 24, 17:50–18:05, R5020.

11. Partial Differential Equations

Wen Guo Chun will replace Chen, Dechang to give the talk. Aug. 26, 15:15, R3018.

18. Mathematics Education and Popularization of Mathematics

Short Talk: Aug. 24, 15:30–15:45, Michtchenko, Tatiana M., *Basic geometric configurations as a principle of methodical maintenance of the school geometry course*, R3058, ⇒ **Poster:** Aug. 24, 17:20–18:20, EH02.

Cancellation

2. Algebra

Short Talk: Aug. 23, 15:15–15:30, Akinci, Karen Denise, *Cotorsion theories and resolutions*, R5023.

Short Talk: Aug. 26, 17:00–17:15, Zhang, Jiangfeng *Note on the computation of Noetherian normalization*, R5018.

3. Number Theory

Short Talk: Aug. 23, 13:40–13:55, Sun, Qi, *On diagonal equations over finite fields*, CH14.

Short Talk: Aug. 24, 17:50–18:05, Ozluk, Ali E *Distribution of zeros of quadratic L-functions of imaginary quadratic number fields*, R5016.

4. Differential Geometry

Short Talk: Aug. 26, 16:45–17:00, Karpunin, Grigory, *Minimal networks and combinatorial Morse theory*, R3051.

5. Topology

Short Talk: Aug. 24, 15:15–15:30, Xin, Yumei, *The fuzzy symmetric generalized proximity bases and subbases*, R3051.

8. Real and Complex Analysis

Short Talk: Aug. 26, 16:15–16:30, Zorii, Natalia, *Variational problems in the theory of potentials in locally compact spaces*, R5017.

10. Probability and Statistics

Short Talk: Aug. 27, 13:55–14:10, Sun, Liuquan, *Regression analysis for a semi-parametric model with panel data*, R5020.

11. Partial Differential Equations

Short Talk: Aug. 24, 17:20–17:35, Kassmann, Moritz, *On Harnack's inequality for nonlocal and discrete Dirichlet forms*, R5019.

12. Ordinary Differential Equations and Dynamical Systems

Short Talk: Aug. 23, 17:20–17:35, Koplatadze, Roman (A. Razmadze Mathematical Institute of the Georgian Academy of Sciences, Georgia), *Comparison theorem for differential equations with several deviations*, R5021.

13. Mathematical Physics

Short Talk: Aug. 26, 17:20–17:35, Fan, En-gui, *A family of completely integrable multi-Hamiltonian structure systems explicitly related to some celebrated equations*, CH13.

16. Numerical Analysis and Scientific Computing

Short Talk: Aug. 24, 13:40–13:55, Antipin, Anatoly, *Methods of computing of equilibrium and game solutions*, R5014.

Short Talk: Aug. 24, 14:10–14:25, Chong, Yun Chol, *An algorithm of $O(\sqrt{n}L)$ iterations for linear and semidefinite programming (SDP) problems*, R5014.

Short Talk: Aug. 27, 13:55–14:10, Zhang, Shugong *Algebraic interpolation on manifold and the instability of the interpolation nodes*, R5023.

17. Applications of Mathematics in the Sciences

Short Talk: Aug. 24, 16:45–17:00, Neves, Armando G. M., *Upper and lower bounds on Mathieu characteristic numbers of integer orders*, R3030.

Short Talk: Aug. 24, 17:35–17:50, Merino, Glicina, *Cellular automata model for adsorption-desorption with diffusion of particles*, R3030.

ad-hoc Talks and Posters

1. Logic

Short Talk: Welch, Philip (Bonn & Bristol), *On Foreman & Magidors' mutually stationary sets*, Aug. 24, 16:45–17:00, R3058.

2. Algebra

Short Talk: Shahabi Shojaei, Mohammad Ali (Tabriz University, Iran), *Cycle structure of the group $SP(4, q)$* , Aug. 23, 15:15–15:30, R5023.

Short Talk: Neelakanta, Sthanumoorthy (University of Madras, India), *Some classes of root systems of generalized Kac-Moody algebras*, Aug. 23, 15:30–15:45, R5023.

Short Talk: Vámos, P. (University of Exeter, United Kingdom), *Matrix type of rings*, Aug. 27, 15:30–15:45, R3058.

3. Number Theory

Short Talk: Ongarbaev, Ernar Saginbekovitch (Yasawi Kazakh-Turkish International University, Kazakhstan), *To the Golbach-Euler's theorem*, Aug. 23, 15:30–15:45, CH14.

5. Topology

Short Talk: Tserennadmid, Batkhoo (Mongolian State Pedagogical University, Mongolia), *Ω -box topology*, Aug. 24, 14:45–15:00, R3051.

Short Talk: Skopenkov, Arkadiy (Moscow State University, Russia), *The Whitehead torus, the Hudson-Habegger invariant and classification of embeddings of 4-manifolds into R^7* , Aug. 27, 18:05–18:20, R3030.

Short Talk: Elena, Koudriavtseva (Moscow State university, Russian), *Wecken property for roots of mapping between surfaces*, Aug. 27, 14:25–14:40, R3030.

6. Algebraic and Complex Geometry

Short Talk: Nieto, Isidro (Instituto de física y matematicas, Universidad Michoacana, Mexico), *Visualization of real quartic surfaces containing 16 skew lines*, Aug. 27, 17:00–17:15, CH14.

8. Real and Complex Analysis

Short Talk: Piccione, Paolo (Universidade de So Paulo, Brazil), *Group valued maps and a construction of the Maslov index for Lagrangian paths in infinite dimension*, Aug. 26, 16:15–16:30, R5017.

9. Operator Algebras and Functional Analysis

Short Talk: Smailov, Yesmukhanbet S. (Karaganda State University of E.A.Buketov, Kazakhstan), *About embedding in space of multipliers of trigonometric Fourier series*, Aug. 23, 14:25–14:40, R5021.

10. Probability and Statistics

Short Talk: Wulsohn, Aubrey (Warwick University, UK), *Infinite divisibility and censoring lognormal distributions*, Aug. 23, 17:00–17:15, R5014.

Short Talk: Fourati, Sonia (Universite Paris 6, France), *Wiener-Hopf factorisation of Cauchy processes and the Dilogarithm*, Aug. 24, 18:05–18:20, R5020.

11. Partial Differential Equations

Short Talk: Tchernykh, Elena (Kafedra Vysshaya Matematika, MEI, Russia), *On the behavior of the solutions of parabolic equations with reversible time direction in a rectangular domain*, Aug. 24, 18:05–18:20, R5019.

Short Talk: Demidenko, Gennadii V. (Sobolev Institute of Mathematics, Russia), *On isomorphic properties of quasielliptic operators*, Aug. 24, 17:50–18:05, R5019.

12. Ordinary Differential Equations and Dynamical Systems

Short Talk: Aulbach, Bernd (University of Augsburg, Germany), *Geometric Properties of Nonautonomous Dynamical Systems*, Aug. 23, 17:20–17:35, R5021.

Short Talk: Kakishov, Kanybek Kakishovich (Kyrgyz State National University, Kyrgyzstan), Aug. 24, 14:25–14:40, R5023.

Short Talk: Mestel, B. (Exeter Univ., UK), *Renormalisation in quasiperiodically driven quantum systems*, Aug. 27, 14:25–14:40, R5020.

Short Talk: Panakhov, E. and Unal IC (Firat University, Turkey), *On the inverse problem for Dirac system*, Aug. 27, 15:30–15:45, R5020.

14. Combinatorics

Short Talk: Bau, Sheng (University of Natal, South Africa), *On Cycles in Regular Graphs*, Aug. 27, 17:00–17:15, R5021.

17. Applications of Mathematics in the Sciences

Poster: Brannstrom, A., A. Johansson and D.J.J Sompter, *Understanding the role of stochasticity and space in individual-based models of ecology poster*, Aug. 23, 14:45–15:45, EH02.

Short Talk: Ma, Wanbiao (University of Science and Technology, China), *Dynamical properties of SIR epidemic model with time delay*, Aug. 26, 16:45–17:00, CH14.

18. Mathematics Education and Popularization of Mathematics

Short Talk: Ueno, Yoshiaki (Tokyo Institute of Polytechnics, Japan), *Kronecker's lecture on the concept of numbers and Fujisawa's Mathematics Education*, Aug. 24, 15:30–15:45, R3058.

Short Talk: Hirahata, Hirotohi (Kagawaken Ottemae Takamatsu High School, Japan), *Our activities at math group (MSG) for high school teachers in Kagawa*, Aug. 27, 17:00–17:15, R3058.

Short Talk: Zimmermann, Bernud (University of Jena, Germany), *On Heuristics in Ancient Arabic and Chinese Mathematics and use in textbooks*, Aug. 27, 18:05–18:20, R3058.

19. History of Mathematics

Informal Seminar on the Grunwald-Wang Theorem: Wilhelm Grunwald 1932- Wang Shianghao 1950

Aug. 24, 17:20–18:20, R5023, Lorenz, F. (Munster, Germany) and Roquette, P. (Heidelberg, Germany).

Elsevier Science's Offer

To celebrate the 24th International Congress of mathematicians in China, Elsevier Science (stand 204, 205) gives FREE electronic access to over 40 journals in mathematics. This offer is valid from September 1st until 30th 2002.

Available from www.sciencedirect.com/science/hone/mathematics

Interlinked Magic Square

5	68	3	70	1	72
32	41	34	39	36	37
42	31	40	33	38	35
67	6	69	4	71	2
18	55	16	57	14	59
19	54	21	52	23	50
53	20	51	22	49	24
56	17	58	15	60	13
11	62	9	64	7	66
26	47	28	45	30	43
48	25	46	27	44	29
61	12	63	10	65	8

This Interlinked Magic Square is extracted from Yang Hui's Xugu Zhaiqi Suanfa (1275). It consists of nine small squares on surface, each of them includes eight numbers that form an octagon. There are many properties in it, such as:

- (1) The whole square can also be regarded as a combination of thirteen small squares.
- (2) The sum of the eight numbers in each small square is 292.
- (3) The sum of the four numbers of the upper (lower, left, or right) part of each small square is 146 ($=292/2$).
- (4) The sum of the six numbers in each row is 219.
- (5) The sum of the six numbers in each even column is 218, and in each odd column is 220.
- (6) The above properties stand unchanged when the rows (or columns) are moved four by four.

Do you know how to construct the square?

Footloose tours – Item I

A brief of descriptions of the footloose tours on August 23 are as follows:

Tour 4: Beijing Botanic Garden;
booked out

Description: Located at the Foot of the Fragrant Hills, Beijing Botanic Garden is one of the largest botanic gardens in China. The recent built greenhouse is also one of the main attractions of the botanic garden. The Temple Recumbent Buddha (Wo Fo Si) is inside the Botanic Garden.

Meeting: **9:00 a.m.** in front of BICC

Duration: approx. 3 hours

Entrance Fee: 5 Yuans for the Botanic Garden; an additional 5 Yuans for the Temple of the Recumbent Buddha

Tour 7: Ancient Observatory (Gu Guan Xiang Tai); booked out

Description: This ancient observatory seats on a high platform which was used to be the battlements of a watchtower on the Beijing city walls. An astronomical observatory was set up around this site in 1279 during the Yuan Dynasty, and astronomical instruments designed and made by the famous astronomer, hydraulics engineer and mathematician Guo Shou Jing and by other astronomers were installed on the top of the observatory. The observatory and instruments were the most advanced in the world at that time.

Meeting: **15:00 p.m.** in front of BICC

Duration: approx. 3 hours

Entrance Fee: 10 Yuans

Footloose tours – Item II

LOCAT TOURS

LT-1: The Great Wall at Juyong Pass and the Ming Tombs

Departure time: 08:30 in front of BICC

Fees: US\$ 38 or RMB 315 per person, lunch included. Tickets available at Registration Desk.

Description: During this one-day tour, you will visit a section of the Great Wall at Juyong Pass and one of the Ming Tombs. The Great Wall stretches 6000 kilometers from East to West China, traversing five provinces and two autonomous regions. Built first in 221 B.C. and re-built several times in the following 1500 years, it has become a symbol of the ancient Chinese civilization. After the visit to the Wall and lunch, you will visit an emperor's tomb of the Ming Dynasty (1380-1644). This tomb is a mausoleum of the 13th Ming emperor and is the only one that has been excavated. And, the best part of the tomb area is the Spirit Way - giant stone carvings of human beings, animals and mythical monsters standing guard.

Tour operated on:

Aug. 23 8:30–17:00

Aug. 24 8:30–17:00

Aug. 26 8:30–17:00

Aug. 27 8:30–17:00

LT-2: The Forbidden City and the Temple of Heaven

Description: In this one-day tour you will see the imperial palace and the Temple of Heaven. The Forbidden City was constructed in 1406. It was the imperial palace of the Ming and Qing Dynasties. An architectural masterpiece, it was China's political center for 500 years. It is now converted into a museum with a large imperial collection of porcelain, gold ware, bronze ware, jade ware, traditional paintings, and jewelry. After lunch, you will visit the Temple of Heaven. The Temple of Heave was built 600 years ago. It served as a means of communication between the Emperor and the Heaven. The buildings are a masterpiece of ancient architecture.

Departure time: 08:30 in front of BICC

Fees: US\$ 32 or RMB 265 per person, lunch included. Tickets available at Registration Desk.

Tour operated on:

Aug. 24 8:30–17:00

Aug. 25 8:30–17:00

Aug. 26 8:30–17:00

LT-3: Summer Palace and the Lama Temple*Departure time:* 08:30 in front of BICC*Fees:* US\$ 26 or RMB 215 per person, lunch included. Tickets available at Registration Desk.*Tour operated on:*

Aug. 25 8:30–16:30

Aug. 27 8:30–16:30

LT-4: Tiananmen Square, Beihai Park, and the Lane Tour*Departure time:* 08:30 in front of BICC*Fees:* US\$ 26 per person, lunch included. Tickets available at Registration Desk.*Tour operated on:*

Aug. 26 8:30–16:30

LT-5: Museum of Chinese History, the Zoo and the Silk Street*Description:* In the morning you will visit the Museum of Chinese History where you will see various archaeological findings that illustrate the development of the Chinese nation. After lunch, you will visit the Beijing Zoo and see the Giant Panda, an endangered species of animal native to China. Then, you will have a walk around the Silk Alley, a shopping street (market) in the embassy area.*Departure time:* 08:30 in front of BICC*Fees:* US\$ 24 or RMB 200 per person, lunch included. Tickets available at Registration Desk.*Tour operated on:*

Aug. 23 8:30–16:30

Aug. 25 8:30–16:30

Aug. 27 8:30–16:30

NOTICE: Tour counter will be closed at 18:00, August 25. No more tickets will be sold after that time. If you wish to take such tours after that time, please contact the tour desk at the Continental Grand Hotel.

Signing by Laurent Lafforgue, Today!

From 13:30 on, at, Springer-Verlag, booth No.216, Laurent Lafforgue will sign copies of his research work “Chtoucas de Drinfeld at Correspondence de Langlands” at the booth of Springer-Verlag. Come to the Springer booth to get your free signed copy!

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