Announcement

Public Lecture by Professor Wu Wen-Tsun

Tuesday, August 27, 2:00 PM

Limited seating is available for this lecture, which is part of an International Symposium on the History of Chinese Mathematics (see page 41 of the Congress Program for details). Please reserve a place by coming to the Congress Office (R3057) where tickets are available *at no cost*.

The symposium will be held at the China Museum of Science and Technology. Buses will leave from the front of the International Convention Center at 8:15 AM and at 1:15 PM to take participants to the Museum. Admission to the Museum for Professor Wu's lecture will require presentation of your ticket.

Buses will return to the International Convention Center following the symposium.

Symposium on History of Chinese Mathematics

Tuesday, August 27, 9:00 AM-12:30 PM and 2:00 PM-5:00 PM

The symposium will be held at the China Museum of Science and Technology. Buses will leave from the front of the International Convention Center at 8:15 AM and at 1:15 PM to take participants to the Museum. Admission to the Museum will require presentation of your ICM-2002 Congress badge. The Museum will provide a box lunch and a beverage *at no cost* to those who have reserved a place for the morning session of the symposium.

All who attend the **Symposium** on the History of Chinese Mathematics are cordially invited to a reception following the symposium, hosted by Elsevier Science and the China Museum of Science and Technology. Admission to the reception will require a separate ticket which will be distributed to those who attend the symposium. Buses will return to the International Conference Center from the Museum at approximately 7:00 PM.

Scientific Program – Changes

3. Number Theory

Short Talk: Tianze, *Small solutions of quadratic equations with prime variables in arithmetic progressions*, From Aug. 27, 18:05–18:20, Wang, R5015 ⇒ Aug. 27, 16:45–17:00, R5015.

5. Topology

Short Talk: Namdari, Mehrdad, *Algebraic properties of $C_\infty(X)$*, From Aug. 24, 14:45–15:00, R3051 ⇒ **Poster**: Aug. 24, 16:15–17:15, EH02.

8. Real and Complex Analysis

Short Talk: Ash, J. Marshall, *Symmetric and quantum symmetric derivatives of Lipschitz functions*, From Aug. 27, 16:30-16:45, CH13 ⇒ Aug. 24, 14:10-14:25, R5017.

Correction: **Poster**: Sukhotin, Alexander Mikhailovich ⇒ **Short Talk**: Aug. 24, 15:30–15:45, CH13.

9. Operator Algebras and Functional Analysis

Short Talk: Liu, Peide, *On the weak analytic Radon-Nikodym property*, From Aug. 24, 18:05–18:20, R5015 ⇒ Aug. 24, 17:50–18:05, R5015.

Short Talk: Niknam, Assadollah, From Aug. 27, 14:45–15:00, R3051 ⇒ Aug. 24, 14:25–14:40, R5015.

Short Talk: Lu, Shijie, *Decomposability of finite-rank operators in commutative subspace lattice algebras*, From Aug. 27, 15:15–15:30, R3051 ⇒ Aug. 24, 18:05–18:20, R5015.

10. Probability and Statistics

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

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

12. Ordinary Differential Equations and Dynamical Systems

Short Talk: Tang, Chunlei, *Periodic solutions of not uniformly coercive subquadratic Hamiltonian systems*, Aug. 24, 14:25–14:40, CH14 $\Rightarrow$ **Poster**: Aug. 24, 13:40–14:40, EH02.

14. Combinatorics

Short Talk: Xiang, Kai-Yao, *A method constructing the minimal group with graph*, From Aug. 24, 17:50–18:05, CH14 $\Rightarrow$ **Poster**: Aug. 24, 13:40–14:40, EH02.

16. Numerical Analysis and Scientific Computing

Title Changed: Liu, Biyue, *A Numerical Study of Viscous Flows in curved Tubes with Atherosclerotic Plaques*, Aug. 26, 14:10-14:25, R5019.
Short Talk: Sadov, Sergey, *Double integrals* $\int\int_{[-1,1]^2} |x-y|^\alpha P_m(x)P_n(y)\,dxdy$ *and solution of boundary integral equations on polygons*, Aug. 26, 16:45–17:00, R3030 $\Rightarrow$ **Poster**: Aug. 24, 13:40–14:40, EH02.

17. Applications of Mathematics in the Sciences

Short Talk: Alireza, Fakarzadeh J., *Optimum domain in orthogonal coordinates for nonlinear wave optimal control system by the shape-measure method*, From Aug. 26, 16:30-16:45, CH14 $\Rightarrow$ Aug 24, 17:00-17:15, R3051.

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, $\Rightarrow$ **Poster**: Aug. 24, 17:20–18:20, EH02.

Cancellation

2. Algebra

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

3. Number Theory

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. 27, 14:25–14:40, Gong, Jianhua *On quasiconformally homogeneous manifolds in space*, CH14.
Short Talk: Aug. 26, 16:45–17:00, Karpunin, Grigory, *Minimal networks and combinatorial Morse theory*, R3051.
Short Talk: Aug. 26, 15:15–15:30, Pan, Jianzhong, *A generalized intersection theorem*, R3051.

Short Talk: Aug. 26, 15:15–15:30, Moghaddamfar, Ali Reza *A characterizaton of the groups* $PGL_2(p)$, *p prime*, $5 < p < 100$, 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.

9. Operator Algebras and Functional Analysis

Short Talk: Aug. 27, 14:25–14:40, Li, Yangrong, *Contraction integrated semigroups and their applications to continuous-time Markov chains*, R3051.

10. Probability and Statistics

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

11. Partial Differential Equations

Short Talk: Aug. **24**, 18:05-18:20, Fang, Daoyuan, *A note for the singularities of semilinear Cauchy problems*, R5019.

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

13. Mathematical Physics

Short Talk: Aug. **26**, 17:20–17:35, Fan, Engui, *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, *Celluar automata model for adsorption-desorption with diffusion of particles*, R3030.

ad-hoc Talks and Posters

1. Logic

Poster: Denisov, Alexander S. (Research Institute of Mathematics, Russia), *The condition (Z)*, Aug. 24, 13:40–14:40, EH02.

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

2. Algebra

Short Talk: csörgö, Piroska (Eötuös Unversity, Hungary), *On loops and groups* Aug. 26, 17:00–17:15, R5018.

Poster: Kenzi, Sato (Tamagawa Unversity, Japan), *Free Group of the Special Orthogonal Groups*, Aug. 24, 14:45–15:45, EH02.

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

4. Differential Geometry

Short Talk: Mendonca, Sergio (UFF, Brazil), *A connectedness principle in the geometry of positice curvature*, Aug. 26, 17:00-17:15, R3051.

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. 27, 14:25–14:40, CH14.

5. Topology

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

Poster: Namdari, Mehrdad (Shahid Chamran University of Ahvaz, Iran), *Algebraic properties of $C_\infty(X)$*, 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 fisica 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: Zayed, Ahmed I. (DePaul University, USA), *A q-Analogue of the Whittaker-Shannon-Kotel'nikov Sampling Theorem*, Aug. 24, 15:30-15:45, R5017.

Short Talk: Gong, Jianhua *On quasiconformally homogeneous manifolds in space*, Aug. 24, 14:25–14:40, R5017.

9. Operator Algebras and Functional Analysis

Poster: Sadik, Nazim (Istanbul University, Turkey), *A characterization of the disk algebras*, Aug. 24, 17:20–18:20, EH02.

Short Talk: Mabizela, Sizwe G. (University of Cape Town, South Africa), *Hausdorff Lipschitz continuity of the simultaneous best approximation operator*, Aug. 26, 18:05–18:20, R5019.

Short Talk: Desquith, Etienne (Institut de Recherches Mathématiques (IRMA), Ivory Coast), *The banach algebra induced by a double centralizer*, Aug. 24, 15:30–15:45, R5015.

Short Talk: Wu, Shuhong (Wuhan University, China), *A property of numerical range of operators*, Aug. 27, 15:15–15:30, R3051.

10. Probability and Statistics

Poster: Jeong-Hoon Kim (Yonsei University, S. Korea), *Asymptotics of noncentered mixing Stochastic differential equations*, Aug. 24, 13:40–14:40, EH02.

Short Talk: Fourati, Sonia (INSA de Rouen and université 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: Kakishov, Kanybek Kakishovich (Kyrgyz State National University, Kyrgyzstan), Aug. 24, 14:25–14:40, R5023.

Short Talk: Mestel, B. (Exeter Univ., UK), *Renormalisation in quasiperidically 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.

13. Mathematical Physics

Short Talk: Shepelsky, Dmitry (Institute for Low Temperature Physics, Ukraine), *The modified KdV equation on the half-line*, Aug. 26, 17:20–17:35, CH13.

14. Combinatorics

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

15. Mathematical Aspects of Computer Science

Short Talk: Li, Dafa (Tsinghua University, China), *Using theorem prover ANDP to simplify von Plato's apartness geometry and orthogonality*, Aug. 24, 16:45–17:00, CH13.

17. Applications of Mathematics in the Sciences

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.

Poster: Carlauilla Jose Luis & Fernandez Meicedes, (Castilla-La Mancha, Spain), *Number registration*, Aug. 24, 17:20–18:20, EH02.

Short Talk: Hirahata, Hirotoshi (Kagawaken Otemae 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).

Informal Seminar on K-Theory

Aug. **24**, 16:15-17:00, R5014, Yu, Guoliang (Vandervilt University, USA), *The Novikov*

conjecture and geometry of groups.
Aug. **24**, 17:15-18:00, R5014, Roe, John (Pennsylvania State University, USA), *Large scale index theory.*

Informal Seminar on the Grunwald-Wang Theorem 1932-1950
Aug. **24**, 17:20-18:20, R5023, Lorenz, F.

(Munster, Germany) and Roquette, P. (Heidelberg, Germany).

Informal Seminar on Matrix Problems
Aug. **26**, 17:15–18:00, R5014, Zhang, Yingbo, *On hom-spaces of tame algebras.*
Aug. **27**, 16:15–17:00, R5014, Roiter, A. *Representations of Marked quivers.*

PEKING OPERA

(Booked out)

Date and Time: Sunday, August 25, 2002 at 19:30
Venue: Chang'an Theatre
Transportation: Buses start in front of the BICC at 18:30. Since there is no conference sessions on Sunday, please get to BICC on your own in time. The buses will take you back to BICC after the show. There will be no shuttle bus from BICC to your hotels.
Following is a description of the three selections of the Opera:
1. *The Crossroads*: Jiao Zan, a senior officer of the Song Dynasty, is being exiled under guard to Shamen Island because he has killed a treacherous court offcial. Marshel Yang orders Ren Tanghui to protect Jiao in secret. Ren and Jiao put up for the night at the Crossroad Inn. The inn-keeper Liu Lihua believes that Ren intended to murder Jiao, so he steals into Ren's room and fight with him in the dark. Only when the inn-keeper's wife comes in with a candle do the three realize in the end that all has been the result of misunderstanding.
2. *Stealing Magic Herbs*: This is an episode of The Romance of the White Snake. On the day of Dragon Boat Festival, Xu Xian advises his wife, Bai Suzhen, for a drink of medicated wine. At her dead drunkenness, Bai shows herself in her true colors - a white snake. At the sight of this, Xu is scared to death. To save her husband, Bai goes to the forbidden mountains to steal magic herbs. There she fights with the guards - crane boys and deer boys, and gets the right herbs she wants.
3. *Farewell My Concubine (The Death of Yu Ji)*: Liu Bang and Xiang Yu have agreed to a truce and drawn a demarcation line at Honggou. Liu's general makes a feign surrender to Xiang and then successfully lures Xiang and his troops into an ambush. Xiang and his troops are surrounded and cannot break through. When his soldiers hear their folk songs sung from the enemy, they take it for granted that their fellow soldiers have given up fighting, and their morale goes down. Xiang realizes that the game is as good as lost and indulges in his drinks in despair. He bids farewell to his lover, Yu Ji, who dances her last before killing herself with a sword.

Four depicted figural characters in Peking Opera

A female role   A male role   A dramatic male role   A clown role

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/home/mathematics

Footloose Tours

Brief descriptions of the footloose tours on August 24 are as follows.
Tour 5: Peking University; <u>booked out</u>
Description: Peking University is one of the best and most famous universities in China. Having over 100 years history, Peking University is also one of the oldest universities in China. The site of Peking University was a garden in the Qing Dynasty. This tour is a walk in the beautiful campus of Peking University.
Meeting: **9:00 a.m.** on the road in front of BICC
Duration: aprrox. 3 hours
Entrance Fee: free

Tour 8: Exhibition Hall of Chinese Science and Technology; <u>booked out</u>
Meeting: **15:00 p.m.** on the road in front of BICC
Duration: aprrox. 3 hours
Entrance Fee: 20 Yuans

Brief descriptions of the footloose tours on August 26 are as follows.
Tour 9: Confucius Temple (FU Zi Miao); <u>booked out</u>
Description: The Confucius Temple in Beijing was built during the Yuan Dynasty in 1306, and it is the second largest Confucian temple in China after the one in Qu Fu, Shantong Province.Confucius, the great thinker and philosopher in ancient China during the Spring and Autumn period(770-476BC), lived between 551-479 BC. The Confucianism founded by him advocates the rule of virtue and benevolence and stresses good morals.
Meeting: **9:00 a.m.** on the road in front of BICC
Duration: aprrox. 3 hours
Entrance Fee: 10 yuans

Tour 4-B: Beijing Botanic Garden (Bei Jing Zhi Wu Yuan); <u>booked out</u>
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.** on the road in front of BICC
Duration: aprrox. 3 hours
Entrance Fee: 5 Yuans for the Botanic Garden; an additional 5 Yuans for the Temple of the Recumbent Buddha.

Tour 6-B: Yuan Ming Yuan (the old Summer Palace); <u>booked out</u>
Description: Yuan Ming Yuan (the Garden of Perfection and Brightness) is actually three gardens. It used to be the summer palace in Qing Dynasty (please notice that it is older than the Summer Palace, the later one being one of the most visited places in Beijing now). The whole garden was destroyed by Anglo-French joint force in 1860. The whole grounds were set on fire, and treasures were plundered.Since most the buildings were wooden structures, almost nothing escaped the fires, except in on corner of the garden there still stand some broken stone pillars and collapsed arches. This is a group of Western-style Renaissance buildings to the north of the Garden. They were designed by Western architects employed by the Qing court at the time, and constructed by Chinese artisans. From the ruins we still can imagine out the grandeus of the palaces.
Meeting: **9:00 a.m.** on the road in front of BICC
Duration: aprrox.3 hours
Entrance Fee: 10 Yuans for the Park, an additional 15 Yuans to see the Ruins.

An informal meeting

An informal meeting of mathematicians from India and of Indian origin is scheduled for Monday the 26th, at around 8:45 in Room 3058. There is no specific Agenda, but we should honor Dr. Madhu Sudan, the first Indian to win the Nevalinna Prize. (Hopefully, Prof. Madhu Sudan finds time to attend it.) For any comments or suggestions, please contact Prof. Subhash C. Saxena at Continental Grand Hotel and/or leave a message.

There is a free postcard for each ICM2002 participant. Please go to third floor of the Convention Hall to receive the postcard by showing your name tag and ID number.