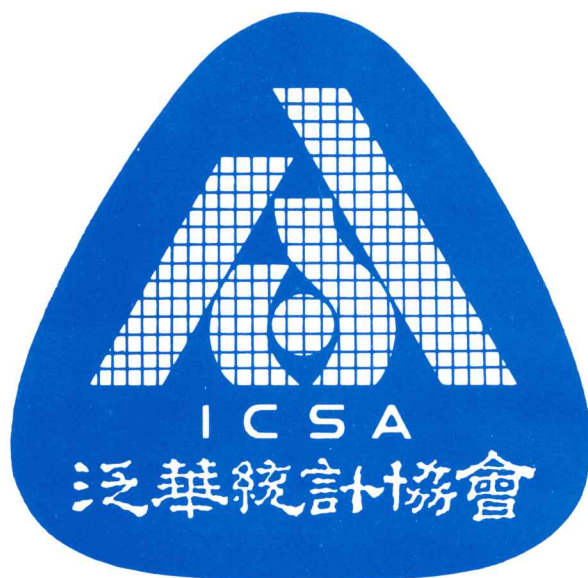


泛華統計協會 會刊

International Chinese Statistical Association

Website: <http://icsa.org>



Bulletin
January 2000



編者的話：

會刊是我們會員的主要交流園地，預計每年在一月及七月發行兩期，希望各位踴躍賜稿，文章以一至二頁為主，須用中文繁體字或英文書寫，文章性質以一般性非專門學術的文章為主，以前或本期會刊內的各篇短文都是很好的範例，稿件如採用，我們希望能由作者安排打字，完稿的上，下，左，右邊 (margin) 至少要有四分之三英吋，頁碼離底邊二分之一英吋，打字打在 8" x 11" 的白紙上。為統一見，若以英文書寫，請用 Microsoft Word 打字，中文繁體字請用 Microsoft Word with Valupack Fareast feature 打字。稿件的截止日期是六月十五日及十二月十五日。截止日期後收到的將列為下一期的稿件。

刊內付有本會的申請表 (application form)，其中會員動態內的著作 (publication) 以一年內的新作品為限。

從 1994 年度起本會酌收徵才廣告費一頁 U.S.\$200 或半頁 U.S.\$120。

對於以上的一些構想，如果您有任何建議，請與泛華協會執行長丁乃迺迪 (地址見下) 聯絡，以期這份刊物更為完善。

2000 會刊通訊錄編輯人員

王淑貞 (Chair)
曹振海
施維中

韓建佩
楊海亮

Publication Committee

Jun Shao (Chair),
Zhiliang Ying,
Ker-Chau Li,

James J. Chen
Sue-Jane Wang
Naitee Ting

Website: <http://www.icsa.org>

I.C.S.A. c/o Naitee Ting, Ph.D.
198 Spicer Hill
Ledyard, CT 06339-1534
U.S.A.

EXECUTIVES AND MEMBERS OF THE COMMITTEES OF ICSA 2000

EXECUTIVES

President	Chien-Pai Han (2000)
Past President	Tar Timothy Chen (2000)
President-elect	Chao Agnes Hsiung (2000)
Executive director	Naitee Ting (1998-00)
Treasurer	Xiu Chen (1998-00)

BOARD OF DIRECTORS

I-Shou Chang (1999-01), Hung Chen (1998-00), Rongdean Chen (1999-01), Tar Timothy Chen (1998-00), Jianqing Fan (2000-02), Chien-Pai Han (1999-01), Agnes Hsiung (2000-02), H.-M. James Hung (1998-00), Ker-Chau Li (2000-02), Dennis K.-J. Lin (1998-00), Karl K. Lin (2000-02), Dan-Yu Lin (1999-01), Jen-Pei Liu (1998-00), Nancy C. H. Lo (1999-01), Jun Shao (2000-02), Mei-Cheng Wang (2000-02), Zhiliang Ying (1999-01), Cun-Hui Zhang (1998-00), Frank Shen (2000-02, Biometrics Section Representative)

STANDING COMMITTEES

PROGRAM COMMITTEE

Ouhong Wang (chair 2000; member 2000-01), Hung-Ir Li (2000), Wei Shen (2000), Mei-Cheng Wang (1999-00)
Term of reference: to plan, coordinate and arrange the annual meeting, 2000.

FINANCE COMMITTEE

Xiu Chen (chair 1998-00), H.-M. James Hung (2000-02), Christina Show (1998-00)
Term of reference: to oversee the budget and financial situation of the Association.

NOMINATING AND ELECTION COMMITTEE

Nancy C. H. Lo (chair 2000; member 1999-00), Dennis K.-J. Lin (2000-01), Chao Agnes Hsiung (1999-00), Mei-Cheng Wang (2000-01)
Term of reference: to nominate the candidates for the President-elect and members of Board of Directors.

PUBLICATION COMMITTEE

Jun Shao (chair 2000; member 1998-00), James J. Chen (2000-02), Zhiliang Ying (1999-01), Sue-Jane Wang (Bulletin), Ker-Chau Li (Statistica Sinica), Naitee Ting (ex-officio)
Term of reference: to supervise the publication policy of the Association and make recommendations with respect to the editorial policy of various publications.

CURRENT COMMITTEES

MEMBERSHIP COMMITTEE

Tzu-Cheng Kao (Chair 2000, member 2000-02), James J. Chen (1999-01), Chong Gu (2000-02), Xuming He (1998-00), Zhaohai Li (2000-02), Xufeng Niu (2000-02), Joe Shih (1998-00), Jane-Ling Wang (1999-01), Hung Chen (1999-01, Taiwan), Yeh Lam (1999-01, Hong Kong), Bo-Cheng Wei (1999-01, China)
Term of reference: to recruit more new members and contact potential interested individuals and organizations.

FUNDRAISING COMMITTEE

Naitee Ting (chair 2000), Jianping Dong (2000-02),

Kuang-Chao Chang (2000-02, Taiwan)

Term of reference: to consider fund raising drive through individuals and corporations

PUBLIC RELATIONS COMMITTEE

Yi Tsong (Chair 2000, member 2000-02), Naisyin Wang (2000-02),

Shi-Yong Feng (China), Sik-Yum Lee (Hong Kong), Lung-An Li (Taiwan)

Term of reference: to contact news media and publicize ICSA activities, to serve as a liaison between ICSA and other professional organizations such as ASA, Biometric Society for joint activities.

AWARDS COMMITTEE

Jack C. Lee (Chair, 2000; member 1999-00), Lynn Kuo (2000-02),

Ming Tan (2000-02), Wai-Yuan Tan (1999-00), Mark Yang (1999-01),

Cun-Hui Zhang (1999-01)

Term of reference: to accept, evaluate, and recommend nominations for ICSA various awards.

PROFESSIONAL ACHIEVEMENT COMMITTEE

Yuan S. Chow (chair 2000; member 1999-01), I-Shou Chang (1999-00),

James C. Fu (2000-02), Grace Yang (1999-00), Zhenhai Yang (2000-02, China)

Term of reference: to discuss ICSA Fellows and Chinese COPSS award.

COMMUNICATION COMMITTEE

Chung Chen (chair 2000; member 1999-01), Don Sun (web), Hubert Chen (listserv)

Term of reference: to evaluate the database and the use of internet.

CONFERENCE COMMITTEE

Wai-Keung Li (chair), Xiao-Li Meng, Howell Tong, Kai-Tai Fang, Fred Ho, Jianqing Fan

Term of reference: to arrange the 5th ICSA International Conference, 2001.

APPLIED STATISTICS SYMPOSIUM COMMITTEE

Jia-Yeong Tsay (co-chair), Zhiliang Ying (co-chair), Danny Chaing,

Rongdean Chen, Irwin Ho, Irving Hwang, Frank Shen, Weichung Shih,

Kao-Tai Tsai, Weiying Yuan

Term of reference: to organize the Applied Statistics Symposium, 2000.

BOOK AND JOURNAL DONATION COMMITTEE

Tar Timothy Chen (Chair)

Term of reference: to solicit book and journal donations and to arrange the delivery to universities or colleges in need.

EXECUTIVE DIRECTOR AND TREASURER SEARCH COMMITTEE

Chao Agnes Hsiung (Chair), Smiley W. Cheng, Shein-Chung Chow,

Nancy C. H. Lo, Naitee Ting

Term of reference: to recommend candidates for Executive Director and Treasurer for 2001-03.

STRATEGIC COMMITTEE (all former presidents)

Tar Timothy Chen (chair 2000), Jeff C. F. Wu, Shein-Chung Chow,

Kuang-Fu Cheng, Smiley Cheng, Chiao Yeh, Yuan S. Chow, Jack C Lee,

Grace Yang, Jia-Yeong Tsay, James Fu, George Tiao

Term of reference: to plan long-term strategies for the Association.

BIOMETRICS SECTION (2000)

James J. Chen (chair), Alice Hsuan (past chair), Weichung Joe Shih (chair-elect),

Colin Wu (secretary), H.-M. James Hung (treasurer),

Frank Shen (ICSA Representative, 2000-02).

**EXPRESS YOUR
OPINION**

EDITOR'S PAGE

Statistics In Everyday Culture

Dear Colleagues,

The upcoming year 2000 applied symposium and the 5th international conference of 2001 are sponsored by the ICSA. We'd like to notify you ahead of time and encourage your involvement by contacting the chairs of the corresponding events or by sharing your research findings with the members. Your suggestions / comments are welcomed. More details inside

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**GET INVOLVED IN
NEXT ISSUE**

Special topic - Survey/Poll...	
Statistics' Delight/ 統計趣聞	
Controversial statistical	
Issue – Bayesian approach	
in clinical trials	
Useful Statistical Links	

Get involved in the next issue by email your articles to the Editorial Board at

WANGS@CDER.FDA.GOV

On the edge of the new millennium, we are aware of the need to integrate statistics into everyday life. As Bradley Efron (1998) put it, "statistical thinking and methodology have become the scientific framework for literally dozens of fields, including education, agriculture, economics, biology and medicine," we recognize that life as we know it today will be much more meaningful and manageable with the use of statistics. One mission is to gradually blend statistical concepts into our daily language so that the non-statistician can also appreciate and apply. Therefore, we have created a "Special Topic" section in each issue of the Bulletin, which features statistics applied to a specific science discipline.

In this issue, application of statistics in seismology was chosen to be the special topic column. Last year, the 921 quake in Taiwan took many lives and left hundreds of thousands homeless. One of the major difficulties in earthquake research is prediction of epicenter. We were delighted that Dr. Wang (王錦華), an expert research statistician in seismology, could help us grasp the statisticians' role in short and long term earthquake prediction including the vicinity of epicenter and the timing and the size of the quake. Other related reports were contributed from Dr. Chen-Hai Andy Tsao and Dr. Lung-An Li.

We asked representatives from academia to reflect on their experiences as statisticians. In "統計已死，統計萬歲！" Dr. Chao (趙民德) emphasizes the importance for a statistician to take the leadership role.

We also added a couple of humorous anecdotes in the new section Statistics' Delight. Like the Chinese saying goes: cast a brick to attract jade, we hope the anecdotes of this issue will inspire you to share similar experiences in your daily lives, bringing a bit of humor to all of our readers.

The vision of the New Editorial Board is to continue good traditions and to further enrich non-technical publications. Other suggestions such as including a special corner of controversial statistical issue for non-technical discussion and useful statistical web-links may be implemented in the issues to come. We encourage your submissions to help make our Bulletin fruitful.

Finally, on behalf of the Editorial Board of the ICSA Bulletin, I would like to thank Dr. Karl Lin, the former Editor-in-chief, Dr. Tar T. Chen, the Past President (1999) and Dr. Chien-Pai Han, the President, during the preparation of the Bulletin.

Sue-Jane Wang
Editor-in-chief

MESSAGE FROM THE PRESIDENT

Dear ICSA Members:

I am honored to serve as the president in the year of 2000. The general feeling is that everything seems to be starting anew. But many good things will remain unchanged. For ICSA the tradition of serving members will remain the same. *Statistica Sinica* remains as our official journal. The Applied Statistics Symposium will be held every year. We will have the ICSA International Conference every two or three years. And, of course, we will have our famous and delicious banquets at the Symposium and Joint Statistical Meetings every year.

While good old traditions will remain, new services will be initiated as time goes on. In 1999 the Board of Directors established the new Book and Journal Donation Committee. Professor Timothy Chen, our Past President, is the Chair of this committee. He will serve as a matchmaker between the donors and needy academic or research organizations. If any ICSA member has books or journals to donate, please contact Professor Chen.

The success of our Association depends on our membership. Recruiting new members is a priority. This year Dr. Tzu-Cheg Kao is the Chair of the Membership Committee. Dr. Kao volunteered to serve on a committee and agreed to serve as the Chair. I increased the number of members in this committee to broaden the scope of recruiting. In order to attract new members, we must advertise the services of our Association. These include subscription to our world-class journal *Statistica Sinica*, presenting papers in the Applied Statistics Symposium and International Conference and interacting with other members. Perhaps another service we may consider is to establish a data bank. Many of us have the experience of submitting a paper for publication, and having the referee to ask us to provide a real example for the new theory or methodology we propose. It would be a very useful service for our members if such a data bank of real examples is constructed. If you have any new ideas, please notify me or any member of the Board of Directors.

This year the Applied Statistics Symposium will be held in New Jersey. I hope that you plan to participate in the Symposium. Also please continue your support and submit your papers to *Statistica Sinica*. The term of our Executive Director, Dr. Naitee Ting, will end this December. Please consider a nomination for this important position, and send your nomination to Dr. Chao Agnes Hsiung, President-elect and Chair of the Search Committee.

I wish you a Happy New Year and Prosperous New Millennium.

Chien-Pai Han
President

Special Announcement from Editorial Board

The Editorial Board would like to consider one more volunteer for the Editorial Working Committee. If you have a new idea and are interested in joining us, please send your C.V. including your plan to the Editorial Board WANGS@CDER.FDA.GOV for consideration.

We encourage your active involvement in the ICSA Bulletin. Every effort counts.



FROM THE EXECUTIVE DIRECTOR

Dear friends:

Welcome to the new millenium, this is the 13th year for ICSA! With the support from all of you, our organization has been very prosperous throughout these years. Year 2000 is the last year for me to serve as the Executive Director. I would like to thank all of you for trusting me and offering me this opportunity to work for such a wonderful organization. Within this year, ICSA plans to issue a new Directory of members, to transition to a new database, and will elect a new Executive Director and a new Treasurer.

Traditionally, ICSA publishes a new membership directory every three years. The newest one is due in 1999. Unfortunately we will have to postpone this issue until January of 2000. Please accept my apology for this delay. During 1999, I was hoping to have a new database system running so that the Directory could have been published from this new database. But with many unforeseeable difficulties, I was unable to make the 1999 deadline. The January 2000 Directory will still be published from the old database. For this new Directory, we will include all information received up to December 20, 1999. Any new information arrives after that date will not appear on this issue. However, if you have newer information, or if you know of any lost members, please let us know soon so that these data will be included in the next Directory.

We hope to have the new database up and running before transitioning into the next Executive Director. With this new system, members will be able to update their own records from the web directly. For the time being, we still need your help to send in your check to update your membership status. In the future, we hope you can update your membership using credit cards, if you choose not to use your check.

Please help nominating the new Executive Director and the new Treasurer. Dr. Agnes Hsiung (ICSA President-Elect, 2000) will coordinate the nomination process. If you think yourself, or someone you know, qualifies either position, please inform Dr Hsiung. After the new Executive Director and Treasurer are elected, please give them your full support just like what you did for us.

Please feel free to visit the ICSA home page www.icsa.org for the most up to date information. If you have suggestions or comments about how we can provide better services to our members, please notify me

Naitee Ting, 198 Spicer Hill Road, Ledyard, CT 06339-1534
phone (860) 441-4871, fax (860) 441-3219,
or email TINGN@PFIZER.COM.

at your earliest convenience. Again, thanks very much for your support, and I hope all of you will have a

Happy New Millenium.

Naitee Ting

Minutes from ICSA Membership Meeting

on Wednesday, August 11, 1999, 6:00-7:00 P.M. Convention Center, Room 316, Baltimore, Maryland.

Chair: Tim Chen

Attendees: About 70 ICSA members

Minutes: Naitee Ting

1. Agree on the proposed agenda
Agreed.
2. Agree on the minutes from the previous board meeting
Agreed.
3. Further discussion on issues from the previous membership meeting
No discussion.

4. ICSA awards

Tim Chen presented ICSA Awards and read the citations:

Pi-Erh Lin

1. Serving multiple terms on the ICSA Award Committee.
2. Serving as Chair of Nomination Committee and developing a very stringent nominating process which could have been used as a prototype.
3. Serving as a co-editor of a special issue of Communications of Statistics for the Proceedings of the 1997 ICSA Applied Statistics Symposium.
4. Serving on Constitution Review Committee to amend ICSA Constitution in which Professor Lin played a leading role.
5. Currently serving on Professional Achievement Committee to establish guidelines as needed.
6. Making significant contribution to teaching as a professor at Florida State University since 1968 and contribution to statistical research in the areas of non-parametric methods, missing data, Stein's-Type estimation in multivariate normal means, etc. among others.

Xue Ren Wang

1. As the chair of local organizing committee for the 4th ICSA International Conference in Kunming, China, Professor Wang has put together a super organizing team, which spent countless many hours in preparing the meeting. He was personally involved in every aspect of the organizing effort, from arranging reception banquet to post-conference tours. What makes it particular significant was that he was doing all these despite his health -- indeed, even when he was hospitalized. He has also made great efforts in fund raising for the meeting. In short, the meeting would not be possible, let alone being a great success, without his tremendous effort and leadership.
2. For his contribution to geological prediction problems in Yunnan Province.
3. For his mentoring of some best young statisticians in China.

Ching-zong Wei

1. Lead the Institute of Statistical Science for the past 6 years.

2. Contributions to ICSA as director.
 3. Contributions to Statistica Sinica as associate editor.
 4. Help promote the awareness of importance of statistics to public.
 5. Help Taiwan statistics community to grow and prosper.
5. Report from the President (tchen001@umaryland.edu)
1. Work with directors, executives and committees
Tim Chen expressed his appreciation to ICSA directors, executives, and committee chairs and members for working together to make ICSA a better organization
 2. Chaired 1999 Symposium (reported in July Bulletin)
There were 211 attended the symposium, with 26 as students, 89 from universities, 52 from industry, and 44 from government. There were 114 papers presented. The first ICSA student award and travel fellowships were awarded to six students. There were 58 regular attendees and 8 student attendees for 3 full-day and 2 half-day short courses. (Detailed report see July 1999 ICSA Bulletin, pp. 41-44)
 3. Build relation with ASA, COPSS
ASA President-elect Dr. Mike O'Fallon requested recommendation of several ICSA members to serve on ASA committees. Tim Chen attended COPSS business (closed) meeting to give a ten-minutes report about ICSA.

After reported the above 3 items, Tim introduced the new ICSA President for the year 2000 - Dr. Chien-Pai Han

6. Business Report
- 6.1 Executive Director (TINGN@PFIZER.COM)
Naitee Ting thanked the program committee (chaired by Mei-Cheng Wang) for their effort to make the meeting successful. Throughout the whole JSM, ICSA booth has always been a hot spot. Almost every one walk by our booth, people stop and greet to each other, chat for some time, old friends get to see each other, making new friends, ... etc. This turned out to be one of the most successful year for ICSA at JSM.
 - 6.2 Treasurer Report
These reports were published in the July 1999 ICSA Bulletin (pp. 4-5, 58-59).
 - 6.3 Statistica Sinica
The service of the retiring editor, Prof. CS Cheng, and the North American managing editor, Prof. Dennis Lin was acknowledged. The new editors, Professors KC Li, YC Yao, and the new North American managing editor, Chung Chen were recognized.
 - 6.4 ICSA Bulletin (new editor, wangs@cder.fda.gov)
The service of the retiring editor, Dr. Karl Lin, was acknowledged. The new editor, Dr. Sue-Jane Wang was recognized. ICSA members were encouraged to submit articles to ICSA Bulletin.
 - 6.5 Committees
 - 6.5.1 Program Committee
Prof. Mei-cheng Wang and her students were acknowledged for their service during JSM. The banquet will take place after this Membership meeting.
 - 6.5.2 Finance Committee
Financial reports from Applied Statistics Symposium account, International Conference account, and Statistica Sinica North American managing editor account were published in the July 1999 ICSA Bulletin (pp. 60-61).

6.5.3 Nomination Committee

ICSA 1999 Election Results

President Elect: HSIUNG, Chao Agnes, NHRI, Taiwan

Directors: FAN, Jianqing, UCLA;
LI, Ker-Chau, UCLA;
LIN, Karl K., FDA;
SHAO, Jun, U, Wisconsin-Madison
WANG, Mei-Cheng, Johns Hopkins U.

Biometrics Section Chair-Elect:

SHIH, Weichung Joe, Merck Research Labs.

Biometrics Section Representative to the Board:

SHEN, Frank, Bristol-Myers Squibb Co.

6.5.4 Web report

The web and listserv reports were published in the July 1999 ICSA Bulletin (pp. 45)

6.6 ICSA 5th International Conference

The 5th International Conference will be chaired by Prof. W. K. Li (U of Hong Kong). The date is in August 2001 (refer to July 1999 Bulletin, pp. 54).

6.7 Applied Statistics Symposium (2000, 2001)

The 2000 Applied Statistics Symposium will be held on June 1-3, at Embassy Suites Hotel, Piscataway, New Jersey. It is co-chaired by Dr. Jia-yeong Tsay and Professor Zhiliang Ying. Student award and travel fellowship announcement was published in July 1999 ICSA Bulletin (pp. 48). ICSA student members were encouraged to submit papers for competition. Deadline for student paper competition - End of January

The 2001 Applied Statistics Symposium will be co-chaired by Professor Rong Chen and Dr. JP Hsu. The place will be at Chicago.

7. ICSA Directory, Solicit for Advertisement

ICSA will publish a directory near the end of this year. We will solicit advertisement from different companies to appear in this directory.

8. ASA and IMS Fellows

The following seven ICSA members are elected to be ASA fellows: Ching-Shui Cheng, Jianqing Fan, Mei-ling Ting Lee, Jun Shao, Wing Hung Wong, Mark C. K. Yang, Zhiliang Ying.

The following two ICSA members are elected IMS fellows: Danyu Lin and Bin Yu.

9. Other Items for discussion

Dr. Chien-Pai Han thanked Tim Chen for his contribution, and he hoped to work with all ICSA members to make ICSA prosperous.



Picture taken after August ICSA Board Meeting
All ICSA directors and proxies, and ICSA Bulletin Editor, Dr. Sue-Jane Wang



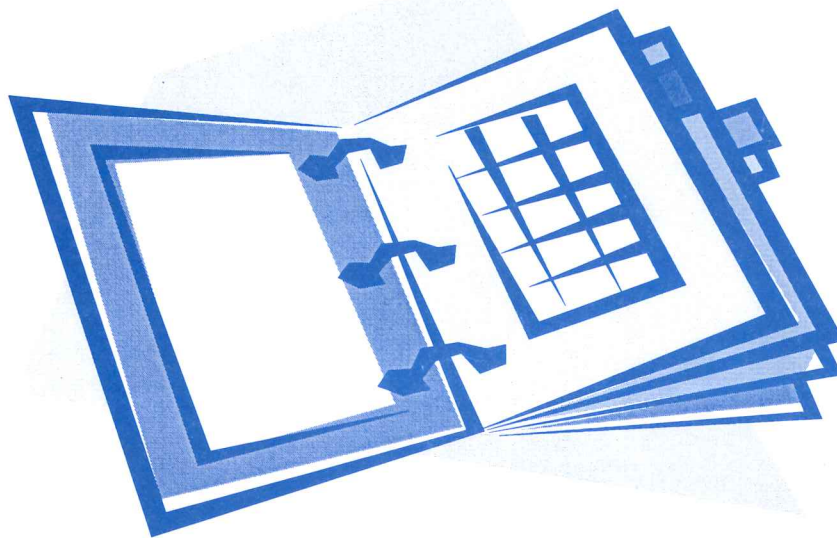
ICSA Awardee Professor Xue-Ren Wang
Receiving plaque from ICSA President Tar Timothy Chen with Professor Xiao-Li Meng



Picture taken at 1999 JSM. President T. Chen with current and past executive director, Naitee Ting and Nancy Lo, and two student helpers



1999 JSM, ICSA after banquet, Karaoke, Gordon Lan, Yi Tsong and Dennis Lin singing



Report of 1999 Joint Statistical Meeting Committee

The ICSA 1999-JSM Committee sponsored for two activities at the 1999 Baltimore Meeting: The annual banquet and the ICSA desk service for members. Both activities have been very successful because of the support from many ICSA members and Hopkins students. The names of the helpers are listed below (no ordering):

Chin-Tsang Chiang, Chien-Pai Han, Fang-Chi Hsu, Guan-Hua Huang, Hsien-Ming Hung, James J. Chen, Chuan-Chuan Su, Karl Lin, Nancy Lo, Jen-pei Liu, Chang S. Lao, Gordon Lan, Mei-Ling Ting, Min-Chi Chen, Qingli Xue, Shou-En Lu, Shu-Hui Chang, Sue Jane Wang, Timothy Chen, Wei-Ting Hwang, Yen-Feng Chiu, Yi Tsong,

The ICSA desk was located at a 'must-see' walkway in the Convention Center. Posters with bright colors have caught meeting participants' eyes and it gave our association the most effective advertisement. During this meeting, the desk received 25 new member application forms and many requests for to-be-approved applications.

The Annual Meeting was held 6-7 pm on Aug 11. There were about 50 members attending the membership meeting.

The Annual Banquet was held at the Uncle Lee Restaurant and 162 people showed up in that event. Yi Tsong at FDA and Gordon Lan at Pfizer served as the karaoke DJs to entertain the dinner participants. The Banquet ended at 11:30PM and many (if not most) people got a raffle prize back home.

Naitee Ting Mei-Cheng Wang
ICSA Executive Director Program Chair

一九九九年中国大陆统计与概率学术活动

李国英 教授

第26届随机过程及其应用国际会议于6月14日至18日在北京召开,有来自世界20多个国家和地区的90多位学者参加了会议。俄罗斯A.N.Shiryayev和美国T.Kurtz等十多位学者作了邀请报告,其中T.Kurtz教授关于他在Markov过程大偏差理论方面的重大进展的报告受到与会学者的广泛重视。

第二届海峡两岸统计与概率学术研讨会于7月24日至26日在苏州召开,来自台湾的周元荣院士等24位学者和内地的王寿仁教授、陈希孺院士和中国统计学会邵宗明会长等81位学者参加了会议。会议共分14个专题、23个时段,内容涉及统计与概率的一些理论研究成果,更多的则是与生物、金融、可靠性等领域结合的应用研究成果。会议还组织了“统计教育与统计研究”专题座谈会,与会学者就人才培养、课程设制和研究方向等进行了热烈讨论。

中国现场统计研讨会成立二十周年暨第九次全国学术会议于7月20日至22日在苏州召开,来自全国各地150多位会员参加了会议,包括研究所、大学、工业和医药部门科学技术人员、30多个分会和专业委员会的代表等。会上陈希孺院士等七位学者作了邀请报告。

此外,Computational Intelligence Workshop于8月上旬在北京举行,来自美国、日本、韩国、台湾和大陆的20多位学者参加了讨论会,美国S.Geman教授等15位学者作了报告。中国概率统计学会还于12月6日组织了“R.A.Fisher与统计科学前沿领域讨论会”,北京和天津的80多位学者和研究生参加了讨论会,陈希孺院士作了重点发言。另外,还有十多位学者作了讨论发言。

除了在内陆举行的学术会议外,有三位学者参加了6月上旬在越南河内举行的Bernoulli学会亚太地区概率统计及其应用国际会议,马志明院士和陈家鼎教授在会上作了邀请报告;应日本统计学会邀请,李国英教授参加了7月底在日本冈山举行的第67回日本统计学会学术年会,并作了邀请报告。大陆还有两位学者应邀参加了9月中旬在韩国大田举行的东亚地区统计讨论会。

921大地震的日子

李隆安

中央研究院統計科學研究所

1999年9月21日凌晨1點47分的時候，我們躺在床上，剛哄完老么睡著，7.3級地震來了！電停了，窗台吱吱的叫，樓板嗡嗡的響，這回震得似乎比平常的地震久，太太問我：「要不要跑？」，我回答：「巷道這麼窄，出去反而容易被樓上搖下的東西打到。」

等到不搖了，我摸索到廚房去檢查瓦斯漏了沒有，再打開家中所有的門，除了大門外。我和太太討論這次地震的感覺，我說這次震央可能在大台北地區！說著說著，6.4級的餘震來了！這下搖得心裡發毛，餘震似乎也比較長。這次搖完了，我和太太就沒有再說話。

第二天早上我們照常出門上班，路上有些交通號誌不亮，警員在指揮，街旁公車站牌有學生等車，台北市有些地區店家的霓虹燈是亮著的。送妹妹到等交通車的地方後，順手打開收音機，在送太太去上班的路上，我才知道今天「停電」不上班，趕緊車子掉頭去接我妹妹回家。

回到家就看到鄰居們正在熱烈討論凌晨的地震，聽到台北松山地區有棟樓房震倒了，大家都說不清楚正確的位置，大家也奇怪12層樓怎會蹋下來呢？甚至懷疑這是謠言！大家比較關心停電，七月台灣地區首次大停電的痛苦經驗記憶猶新！

水電一家，沒電時抽水馬達不動，就沒水用。一直到十月上旬，大家過著

輪流限電和節約用水的生活。辦公室還好，中央研究院雖限制總使用電量但全天供電，冷氣、電梯不能使用。我有偏頭痛的老毛病，冷熱改變得太快會引發我的偏頭頭，一來就是一季。台灣地區九月是秋老虎的日子，從有冷氣機的日子一下子變成秋老虎的日子，我的偏頭痛發作了，每年偏頭痛初犯的那一陣子都是痛不欲生的。

每天來電的時間與長短不一，片段的電視畫面，讓我們看到部分災區同胞的無奈，令許多人伸出援手。9月22日電台的DJ號召募捐，她只預備三輛車載運物資去災區，不料一天的功夫，竟募得十三輛車的物資。這次大地震震出台灣人民的熱情和關心，讓大家對我們社會的溫情感動不已。

921地震後有許多宗教組織、慈善團體、醫學機構等民間單位自動自發的投入救災行列，讓我們覺得台灣地區民間力量在社會中有舉足輕重的份量，這恐是所有華人地區無法匹敵的。每天我們都在這種熱血沸騰中，當中國大陸宣稱國際救援行動必須經過他們的允許才可以到台灣，怎不引起我們的反感：這位官員算是同胞嗎？

921的主震發生後，餘震密而多又強，讓大家驚嚇不已。昨日（台北時間2000年1月6日）還有一個4級餘震在災區發生呢！我遠在台北，在921後一個月內，我還會對輕微的搖動非常警覺，馬上上網去查看是否有地震發生？正確

的機率非常高。在災區的居民更是驚弓之鳥，大家都躲在帳篷裡，不敢住在家中。最爲難的是災區學校的老師，餘震來時，自己心裡有點慌，是讓學生趕快跑出教室？還是留在原位？

921地震後，爲了有效讓救援車輛進出災區，一般車輛是管制進入的。在921二個月後管制解除，我有倖到災區走一次。帳篷多數拆除了，但是一提到往事，恐懼的表情立即出現在每個災民臉上，深刻瞭解何謂「餘悸猶存」。實地看過六十八秒破裂一百公里的斷層後，對大自然敬畏之心不會短時間降低的。

921地震後，大家不是很快的瞭解斷層的真正位置與災情全貌的，所有的信息非常混淆。例如每天的死亡人數從開始的二位數字逐日上升，時有修正，扣出重複計算的人數，上上下下，最後停在2333。我們必須點點滴滴逐步拼湊出這次大地震對地表改變的全貌，我們想找個地球科學研究所的朋友，問個明白，但找不到，他們正在忙。

網路是很多信息的來源，官方的網站會提供一些掌握到但不是即時的消息。從電視畫面傳來的消息，是怵目驚心，但是過於片段且以偏蓋全。有許多學術團體趕到災區幫忙，並做一些調查，但資料的搜集遷就於便宜行事，多難符合調查的學術原則，而又未能即時公布。如何即時搜集與整合信息，對於和時間賽跑的救災和重建是非常重要的，統計學者如何提供一些必要且即時的專業協助，值得考慮。

這次地震忙壞學術界的朋友，水利學的專家忙著評鑑水壩的安全性；地質學的老師帶著學生在野外實地觀察和測量，回到研究室後趕製斷層圖；工程學的老師帶著學生到現場瞭解橋樑和房屋倒蹋的情形，探討和解說倒蹋的原因、以及規劃未來重建的社區；經濟社會或公衛學的老師帶著學生在災區做調查，瞭解災民經濟的需求、心理方面的創傷、以及公共衛生的現況、醫療的需求。

這次地震震得學術界的朋友很傷心，難過事先不能預測中部地區會發生地震，更難過不能預測會發生這樣大的地震！目前在災區做研究又缺乏未發生地震前的背景資料。不錯，地震的預測很難，不過像台灣地區的這樣小國發展學術研究，是注重追求揚名國際的SCI文獻呢？還是不能荒廢耗時耗力、不易發表文獻的本土基本調查呢？取得兩者之間的平衡，有勞主事者來深思了！

921大地震過去百日了，我們還有許多要去做及檢討學習的，它是這個世紀的一件大事。



統計學在地震研究上的應用

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基本上任何一學科的學者，多少都需要使用統計學的知識和方法，地球科學學者需要的更多。在地震方面則有資料的處理與解說、隨機模式的發展、地震危險度的預估等。然而，除了少數的情形，地球科學學者與統計學者間的互動關係並不是十分良好。這可能由於地球科學系的大學課程中雖有統計學，但往往教得不夠扎實；而統計學系或數學系的學生也不修地球科學。因此，彼此間不是十分密切，這是可以改變的。當然，也有少數的地震學者已相當程度地去學習統計學，以應用到地震研究上；反之，也有些統計學者直接參與地震學研究，得到相當好的成果。

爲了幫助統計學者能很快地了解統計學在地震上扮演的角色，將幾項有關的研究簡單地描述如下。這些研究所需要的統計原理和方法，包括迴歸(regression)，檢定(interference)，逆推(inverse)，時間序列分析(time series analysis)，波譜分析(spectral analysis)，隨機過程(stochastic process)等。

一、地震記錄圖的分析(Analyses of Seismograms)

當地震發生後會引發地振動，這樣的地振動是時間的函數。我們可以利用地震儀記錄地面振動。地震記錄圖可提供許多的資料，譬如初動的到達時間、方向與振動的振幅，不同的波相的到達時間與振動，同一波相對於不同週期的振幅等等。利用地震記錄圖上的資料，可用於逆推地震的震源與發生時間、地震的震源力學以及地下構造。這些逆推的過程均需要引進統計的方法。

二、地震目錄的完整性(Completeness of Earthquake Catalogue)

研究地震活動、地震預測、地震預報、地震危害度預估等都需要一個完整的地震目錄。在早期，因地震儀器數量少、品質較差，必然會漏失不少地震資料（特別是規模較小的地震）。因此，如果依靠已有的資料，針對某一規模以上，建立一個前後連貫而且完整的地震目錄，是十分重要的工作。

三、地震活動(Seismicity)

對全球或某一地區，利用多年所得的地震目錄，探討地震活動之時空分佈及地震規模之次數分佈（即 $\log n = a - bM$ ，在此式中M爲地震規模、N爲規模大於M之地震次數）。b值對地震活動性、地體構造與下述的地震危害度評估都十分重要，其它的正確的估算是必要的。地震活動之時空分佈，除了可基於物理模式解釋外，更可建立隨機統計模式。

四、地震預測(Earthquake Prediction)

這是短期或臨震的預測。利用地震、地物及地化的長期連續觀測資料，推斷某一個地區（預期震央位置 ± 10 公里）在一小段時間（預期日期 ± 3 天）發生某一規模的地震（預期規模 ± 0.2 ）。這是很大的一項挑戰，並且是學科

整合的大問題。到目前為止，主震的預測仍十分困難，但在主震發生後，如何預報最大餘震，則相當可行的，這需要建立良好可靠的統計預測模型。

五、地震發生機率(Rupture Probability)

這是一種中、長期的地震預報(Earthquake Forecasting)。利用地震、地物及地質資料，評估某一條斷層在未來十年、二十年、三十年發生某一規模以上地震之機率。這種研究僅考慮地震發生地區及大小，因此，比前述的地震預測容易許多，也實際可行。

六、地震危害度評估(Estimates of Seismic R.3h)

這是利用已有的地震和地質資料，不論地震發生在何處，而評估在某一位置、在若干年內某一加速度之機率。這項研究工作比前兩項研究簡單許多，而且也廣為地震工程界使用。然而其統計預估模式仍有很大的改進空間。

在今年（八十八年）九月二十一日清晨一點四十七分，發生了台灣有史以來，損失最慘重，同時也是陸地上最大的集集大地震。為了深入並且廣泛地了解此地震的孕震條件、破裂過程及地面強振動特性，並進一步探討幾個可能的發震區（如嘉南、竹苗及花東）的幾條活斷層之地震發生機率，國科會黃鎮台主任委員任命了一個七人的規劃委員（由本人任召集人），著手規劃「地震及活斷層」五年大型整合計畫。這個整合計畫中有多項研究需要統計的知識和方法，因此，十分歡迎統計學者的參加。

If you are interested in participation of this five year project or would like to know more details, please contact the author at JHWANG@EARTH.SINICA.EDU.TW, who is an expert in Seismology, Non-linear Mechanics, and Fractal Geometry and is a Research Fellow of the Institute of Statistical Science, Academia Sinica, Taiwan.

Back from Earthquakes

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December 22, 1999

On Sep 21, 1999, the most devastating earthquake in this century hit Taiwan with no mercy. The Chi-Chi earthquake claimed more than 2000 lives, demolished 9909 houses and left 7575 houses damaged (cf. [1]). While terrified and disconsolate, it is more important for us to go beyond sorrow. Utilizing our expertise and collaborating with subject field scientists, we hope to understand, mitigate,

predict or even prevent tragedy of similar kind happening in the future.

This article surveys earthquake information resources in four web sites in Taiwan, Japan, China and the United States respectively. Admittedly, it is a biased and subjective choice because availability of information and our limited knowledge about seismology. Nonetheless, we hope that this information can

serve as a starting point for further exploration and possibly promoting interdisciplinary collaboration and joint research.

The web site [2] is maintained by Institute of Earth Sciences, Academia Sinica, Taiwan. Brief geophysical background knowledge is available through the links. Seismicity information such as acceleration seismogram of aftershocks, broadband seismic waveforms, etc, are available online. A map of active faults in Taiwan can be accessed via links. Information of research fellows on seismology at Institute of Earth Sciences can be found at <http://www.earth.sinica.edu.tw/seismology/introduction.html>. Particularly, Dr. Wang, J.-H. is the author of "Application of Statistics in Earthquake Research" appeared in this issue of ICSA Bulletin. A bulletin board is also available for online scientific discussion and information sharing.

The Earthquake Research Institute at University of Tokyo, Japan maintains a very informative web site [3]. The Link on the main page leads to a huge list of earthquake related institutes, organizations, etc, in Japan and worldwide. Unfortunately, its English version is currently under construction. However, most Kanji characters are "guessable" for Chinese reading explorers (set character to Japanese, auto-detected in your WWW browser). After searching through <http://cn.yahoo.com>, we are only able to locate [4], which includes a list of

researchers and brief introduction to their works. Other web sites are more geared towards the safety tips or regulations for buildings. There are no English versions available at this moment. If you prefer information in English then [5] is the place to visit. Each link on the main pages leads to pages with links to various sources of earthquake information. A complete list in alphabetic order is given in <http://wwwneic.cr.usgs.gov/site.html>, which abounds background reading for non-seismologists.

With the help of WWW, it is much easier to assess specialized subject field knowledge and to contact the experts through email and other electronic communication nowadays. We hope that our joint effort will uncover the mystery of earthquake and alike natural disasters; better, predict and mitigate their impact. Almost surely, more questions and problems await answers for the coming millenium. This perplexing scenario is best described in *Back from Chaos* [6]. Enlightenment thinkers knew a lot about everything, today's specialists know a lot about a little, and postmodernists doubt that we can know anything at all. Are we able to get them right? In an Enlightenmentist's optimistic tone, Wilson [6] argues that the answer is *Yes*: We can know what we need to know and that we will discover all underlying forms of knowledge of a fundamental unity. He is probably right.

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統計已死，統計萬歲！

八十八年七月十五日
第八屆南區統計研討會
張文豹先生講座論文

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人生有很多無奈事，其中之一就是被推到臺前講自己其實並不十分夠格的講演。尤其是這次南區統計研討會和張文豹文教基金會的安排，是中國統計史的第一次。我覺得，若是講統計學，就該從它的源起、傳承、今日的國際現狀和臺灣、中國統計學門的處境，一直談到未來的發展及方向。但這樣架構實在太大了，同時

，統計這一行，不止是在臺灣，即使以世界的角度來看，也不是甚麼人多勢眾的學門。

做統計的人，最應該瞭解，不論自那一種統計數字來看，臺灣都是一個小國。那麼，務實地看，一個小學門，小行業，在一個小國家裡，應該扮演甚麼角色？

我是有一點故意地訂今天的講題。其實，以一個人口二千萬多一點的小國而言，臺灣的統計工作者，不論是官方還是學界，都相當成功地負擔起他們的任務。例如表一所示的，是「經濟學人」(Economists)在1995年3月所做的對新興國家的官方統計數字的品質的評比。

表一：經濟學人對新興國家統計數字的評比

	Timeliness	Availability of quarterly GDP	Overall quality of statistics
Chile	4	Yes	A
Hong Kong	21	Yes	A
Israel	6	Yes	A
Singapore	17	Yes	A
South Korea	2	Yes	A
Taiwan	1	Yes	A
South Africa	8	Yes	A-
Czech Rep	5	Yes	B+
Argentina	12	No	B
Greece	14	No	B
Hungary	10	No	B
Mexico	6	Yes	B
Poland	9	No	B
Portugal	16	No	B
Turkey	10	Yes	B
Brazil	14	Yes	B-
India	17	No	B-
Malaysia	19	Yes	B-
Philippines	21	Yes	B-
Thailand	10	No	B-
Indonesia	19	No	C+
China	10	Yes	C
Russia	21	Yes	C
Venezuela	24	no	C

Source: Economists March 4, 1995.

表二則取自Canadian Journal of Statistics 一個相當廣泛的蒐尋和比較，我所取的只是其幾個較全面的比較排行，講的是對

於各國統計研究論文數量：

表二：Top 25 countries for gross national publication of statistical research

Rank	Country	PAG*	PAG	ART*	ART
1	USA	138544	77974	9484	5493
2	Canada	20933	11805	1588	925
3	UK	16296	9949	1178	749
4	Australia	13891	7782	991	578
5	Germany	8868	5919	622	419
6	Netherlands	6939	4063	468	282
7	Japan	6813	4570	554	379
8	France	5034	2595	351	177
9	India	4252	2322	456	250
10	Denmark	3416	2105	211	135
11	Israel	2589	1450	190	109
12	Taiwan	2489	1433	182	110
13	Norway	2014	1303	126	81
14	Spain	1952	931	138	70
15	Belgium	1947	932	116	55
16	Poland	1784	1050	163	98
17	Sweden	1723	1128	121	83
18	Italy	1428	823	105	62
19	New Zealand	1401	929	115	73
20	Switzerland	1358	754	91	54
21	Finland	1340	702	96	51
22	China	1287	709	101	58
23	Brazil	967	448	72	35
24	Greece	945	572	76	45
25		841	548	787	53

Source: Genest, C. (1997), Can. J. of Statist., v. 25, 427-443.

至於表三，我也藉這個難得的機會報告一下敝所的期刊「中華統計學誌」目前以 impact factor 為依歸的排行情形。

相對地說，我們統計界的同仁的表現，不論是官方還是學界，都算是十分搶眼。但這些都是我所知道的好的、不是由臺灣的人或者單位自己調查出的數據。

我們當然也可以找一些並不漂亮的數據來顯示統計這一行較差的一面。例如如果我們去看一下歷年統計科系的聯招錄取分，並和最熱門的一些科系作比較的話，我們也立刻可以看得出來，對大學部而言，統計科系，絕不是目前有志青年心目中的有出路和有出息的選擇。對研究所而言，這個情形也許略好，今年的各統計研究所招生，來考的人數大

約在100-200之間，相較於一些聽起來好像較有出路的科系來說，是差了不少。至於就業的狀況，我手邊並沒有確切而全面的數字。但我想在座的很多人都知道，一個需要博士學位的教職有十到二十個人同時競爭是頗為平常的事情。

我們當然相信「數字會說話」。但還有一些數字沒有說的：

國科會在兩年前成立了「理論中心」，目前的預算大約是3,600萬，但其中並不包括機率和統計。

表三：統計期刊的排行

Rank	Journal Abbreviation	Impact Factor
1	STAT SCI	2.467
2	T ROY STAT SOC B	2.141
3	J AM STAT ASSOC	1.851
4	ECONOMETRICA	1.712
5	J ROY STAT SOC A STA	1.556
6	BIOMETRIKA	1.446
7	SOLID STATE NUCL MAG	1.370
8	J CHEMOMETR	1.174
9	TECHNOMETRICS	1.103
10	STAT MED	1.003
11	INT STAT REV	0.973
12	BIOMETRICS	0.938
13	STOCH HYDROL HYDRAUL	0.909
14	APPL STAT-J ROY ST C	0.852
15	OXFORD B ECON STAT	0.781
16	ANN STAT	0.729
17	BRIT J MATH STAT PSY	0.667
18	AM STAT	0.633
19	PROBAB THEORY REL	0.624
20	J QUAL TECHNOL	0.608
21	ANN PROBAB STAT SINICA	0.602
22	STAT SINICA	0.538
23	MULTIVAR BEHAV RES	0.491
24	ADV APPL PROBAB	0.479
25	INT J GAME THEORY	0.473
26	J APPL STAT	0.448
27	STOCH PROC APPL	0.445
28	INSUR MATH ECON	0.412
29	J THEOR PROBAB	0.398
30	SCAND J STAT	0.396
31	J APPL PROBAB	0.387
32	ANN I H POINCARÉ-PR	0.379
33	ANN I STAT MATH	0.368
34	FUZZY SET SYST	0.346
35	QUAL QUANT	0.314
36	J MULTINARIATE ANAL	0.301
37	STATISTICS	0.299
38	COMPUT STAT DATA AN	0.275
39	J STAT PLAN INFER	0.263
40	BIOMETRICAL J	0.260
41	CAN J STAT	0.260
42	COMPUTATION STAT	0.255
43	J AUST MATH SOC A	0.250
44	STAT COMPUT	0.250
45	STOCH ANAL APPL	0.229
46	STAT PROBABIL	0.203
47	COMMUN STAT-THEOR M	0.194
48	S AFR STAT J	0.174
49	STAT PAP	0.164
50	J SATA COMPUT SIM	0.156
51	COMMUN STAT-SIMUL C	0.142
52	UTILITAS MATHEMATICA	0.123
53	THEOR PROBAB APPL+	0.063

Source: Journal Citation Report, Winter 1998.

這個信息，和1982年中研院成立統計所籌備處所暗示的，是截然相反的。當年，有一些有影響力的學者，覺得統計是一門應該在國內發展的學門，因此，他們才建議成立統計所，以備這樣的用途。而二十年後，另有一批有影響力的學者，反過來認為統計學不算甚麼數學，甚至於機率論也不算甚麼數學。或者，不算好數學；至少，是不值得國家特別拿一筆錢來支持的數學。

對於這樣的訊息，雖然我的朋友裡是有一部分表現了不滿與反彈，我倒是沒有特別的反應。一部分的理由當然是我的遲鈍，主要的道理，卻是我基本上相當程度地同意以上的關於統計的推論。統計之不算數學，其道理是和會計、財務、電機、不算數學是一樣的。理論中心不包括統計在內，固然可以解釋成「不值得國家特別拿一筆錢來支持的數學」。但我寧可將統計看成「不需要特別被保護的學門」。為甚麼要被特別保護？因為統計不是熊貓，不是雲豹。統計是以數據作為食物的動物。而現代的數據，已多得到了可怕的程度。老鼠若是掉到了米倉裡還會餓死，當然是老鼠的錯。統計這個行業在現代這個充滿數據的社會裡為何還要和一些不食人間煙火的數學家爭那區區的一塊小餅？我想，我們不要把自己這個行業看得太小了。

當然我們會去用一些數學，也許還用一些不是那些非常基礎的數學。但是統計並不是以做定理為主要目的的。統計本

來不算是數學，當然更談不上是好數學。如果我們總是執著在定理的證明與推廣，爭執於某些一般條件(regularity conditions) 是否較弱，收斂的速率誰比較快，這一類的遊戲是永遠玩不完的。我雖一向不認為自己是數學家，也看得出來這一類的研究，其實不能算甚麼好數學。多做、少做，也許會對國科會每年在計算SCI論文篇數時會為我國增加幾個百分點，但其它的影響，我就看不出來了。即使是這樣型態的工作，臺灣學者的影響又在那裡呢？

表四列舉的是1995到1998裡臺灣的學者在Annals of Statistics的所有論文：

表四:1995-98之間國人在Annals of Statistics之論文一覽

作者	Topics
95 胡殿中 劉惠美 姚怡慶 趙民德 陳宏 任眉眉	Density estimation More powerful test Testing AR models Truncation data Semi-parametric GLIM Confidence sets in arbitrary dimensions
96 何淮中 黃榮臣 謝復興	Long-range dependence Asym. Honest sets EPA
97 鄭明艷 趙晨慶，梁文騏 鄭明艷	Bandwidth selection CLT, permutation stat. Boundary effect

前面我就說過，我們是一個小國。在國際市場上，小國只能在別人的遊戲規則下玩遊戲。即使在這樣的條件之下，我們的高手也偶然會投進幾個球。我們當然要為他們的得分喝彩。事實上，國科會在這方面的表現並不算差。明眼的人可以看出來，這張表裡，頗有一些傑出獎的得主。我們雖然不能說這個表中的人物代表了全部這個島上的菁英，但這些人物，的確是略微走在。

這些人，努力地匹馬單鎗殺入敵陣，可是，他們的大部隊又在那裡？他們是不是會太孤軍深入了，以至於後援不繼，被別人切斷了後勤補給？

我很久之前就說過，一個像樣的學門或者行業，需要一個漂亮而穩定的金字塔型的結構，這樣才能長久地讓頂上發光。

那麼，我們來問一問，誰來讀統計？

早在八十一年，我在某一次統計年會裡就說過下面的一段話：

「正面來說，華裔學者在世界的統計學術舞臺上佔有顯著的地位；負面來說，這樣金字塔尖端，並不是建築在國內的廣大基礎上的。」

「在六零至八零年代，這一隻隊伍，源源不斷地被臺灣及香港出身學有專精，並勇往直前的數學系畢業生補充壯大，在國際學術舞

臺上，的確扮演了一些角色。但隨著數學系的兵源日稀，經濟發展良好之後的學子的眼光更放在企管、財務金融等更入世的學門，我們或多或少地覺得這方面的盛況，在可見的將來，必會讓出一些地方給大陸的留美學者。早年的成功，建築在早年的一些機運和條件。當這些條件不再或較難存在時，那麼這些成績便會減色。這是一切不在本土生根文化的宿命。」

這個問題有它的歷史及時代的背景。早期，數學系出身的學子，投身於統計這個行業，是國人能在國際舞臺上佔一席之地的主要條件。但這個優勢已不復存在。例如哥倫比亞大學的統計

系，這幾年來的 entry level工作的申請人裡，並沒有看到臺灣的留學生。但大陸同學的申請案，近兩年每年都在六十件以上。臺灣在美國沒有新的Ph.D.產生嗎？在座的諸位，不乏各系所負責延聘新人的教授，所知當比我還要更第一手。我想，也許我們應該承認，目前臺灣的留學生，至少在統計這一行，已逐漸在頂尖研究單位裡不能和大陸的留美學生競爭。

讓我們看一下我們的大部隊在那裡，而他們在接受怎樣的培養和訓練。下面的表，是我托朋友蒐集的國內需要考數理統計的研究所。

這個表比我所能想像的要廣。我相當驚訝地發現，國內要考數理統計的研究所有那麼多。我的一位補習界的名師朋友告訴我，補

習統計學以備考研究所的市場，每年是15,000人。

這個數字也比我能想像的多。而且，這15,000人，大部分不會被在座的各位教到。這些人一生中可能

這一段時間裡是最用心讀統計的。將來他們在統計分析上的功夫和招式，也必然地深受這一段教育的影響。他們讀到的是怎麼樣的統計概念？

表五：要考『統計學』的研究所

台大：	經研所、圖館所、工工所、商研所、資管所、地理所、土木所（交通工程組）、國企所、農經所、會研所、財金所、流病所、農藝所、植病所
政大：	企研所、財管所、資管所、科技管理所、經濟所、國貿所、圖書資訊所、地政所、保險所、金融所、統研所
交大：	資管所、工業工程與管理所、科技管理所、統研所
臺科大：	管理技術所(企管組資管組工業管理組)、營建工程所(管理組)
成大：	企研所、國企所、會研所、統研所
中央：	企研所、財管所、產經所、人力資源管理所、土木所、資管所、工業管理所、統研所
中山：	資管所、財金所、公事所、海環所、大陸研究所
中正：	企研所、財務金融所、國際經濟所、資管所、數統所
中興：	企研所、經濟所、都市計劃所、農推所、統研所
暨南：	國企所、經研所、公共行政與政策所
雲科大：	企研所、資管所、工業管理所、環境與安全所
東華：	企研所、國企所
屏科大：	資管所
輔大：	管研所、經研所、應統所
元智：	管研所、工業工程所
中原：	企研所
逢甲：	企研所、工工所、統計與精算所、保研所、建築與都市計劃所、土地管理所、電機所(機率與統計)、教育研究所(教育統計學)
台中師院：	測驗統計所

例一：一本補習班的講義如是說：
「獨立和互斥沒有強烈關係。」

例二：下面是交大86年「科管」的考題：
How is the formula for the variance affected if a body of data is a sample rather than a population?

a. The variance is used for population data and the standard deviation is used for sample data.

- b. The squared deviations of the measurements from the mean are divided by $(n-1)$ for the sample and divided by N for a population.
- c. The squared deviations are used for a sample and the square roots are used for the population data.
- d. There is no difference in the formulas.
- f. None of the above.

近年來，我偶然會做一點「箋註」的工作。對於「箋註」這兩個字，國語日報辭典的解釋是：註解古書。做學問的方法之一，就是重新詮釋古人的精意。例如朱熹的主要成就，來自他對孔孟之學的註解。而我們這一行裡，B. Efron有好幾篇非

常有名的論文，究其實際，也只是用心地再一次解釋 R.A. Fisher。我的註釋工作，目標要小得多。我只想弄懂並說明一些應該可以弄懂，但目前國內的資料裡還不是很清楚的東西。而我的對象是在 elementary level。當然，這些基本上

都是自己已沒有極好的主意，做不出有新意的結果，並在讀別人的東西或讚嘆或不爽時的閑話。例如我一直弄不懂品質界的 6σ - 系統。直到有一天弄到了一冊 Motorola 第二代的版本，讀完之後，啞然失笑，因此就

寫了一篇「某公司6σ講義箋註。我對例二的註解是：

「這一題，英文不知道他想說甚麼，統計也不知道他想問甚麼。遇到這樣的考題，你就交卷出來算了。你已經浪費了報名費，還想再浪費兩年學這樣的東西嗎？」

但是，這一批人卻可能是日後大量使用統計方法的大軍。有的時候，我會有一點覺得，我們做的定理好不好，問題其實不大。

因為反正沒有甚麼影響。

但這些人所學到的統計方法是對是錯，是精是粗，反而是真的問題。因為這些人可能是負起國內大多數計量工作的實際操作任務的一群。對於前面我所提及的已殺入敵陣的菁英族群而言，這些人能提供的後勤支援就十分可慮了。我的意思是說，我們有相當可以和國外相比較的研究工作人員，但很可能我們造不出大的系統。因為做基本工的基層，不只沒有受到足夠的訓練，有時還可能被誤導。統計這個行業，尚沒有成氣候。用更明白的話來說：那就是，統計本身，尚不能提供大量的工作機會。

甚麼是統計這個行業？我不覺得我可以明白定義，但可以舉一二個例子。

例三：Barra US Multi-factor Equity Model的E2模型

基本上，這是推廣Markowitz的一系列關於證券

組合的論文所製造的模型。經由Professor Barr Rosenberg 和Professor Vinay Marathe的研發，於七零年代早期，在Berkeley所建立的。

證券組合的理論是說，任一證券的報酬率，都可視為一個隨機變數。因此它就有相應的moments。平均值就相當於平均報酬，而變方則可視為該證券的風險。給定 n 種證券，則我們便會有 mean vector及 covariance matrix。若我們知道這 $O(n^2)$ 個參數的值，則利用 quadratic programming的方法，就可計算出最佳的證券投資組合。這在 n 大的時候，同時估計這樣多參數，就成為一個問題。簡單的方案是引入結構，以降低參數的數目。所用的方法，則是 factor analysis。Barra模型，最後可以降到68個factors。

如何建構這樣的模型當然是苦工和商業機密。W. Sharpe et al. (1995)在“Investment”一書中，用了很大的篇幅來描述這個模型。但主要的工作可分為五個步驟：

1. Data collection and checking.
2. Factor selection.
3. Creation of composite factors.
4. Estimation of factor returns and the factor variance-covariance matrix.
5. Model testing.

我只能在這裡說，這些都是統計分析的基本動作。以我國的實力來說，主計處的一位第三或第四局的科長，如果有充分的人力和資料的支援，就應該做得出來。

以上的道理在座的人都懂，但Rosenberg 卻看得出商機並加以實現。他開了一家叫做BARRA的公司，目前的年收益超過美金4,000萬。

這一年來，我頗喜歡告訴別人這個故事。這是統計的行業，但你若不主動出擊，就會變成別人的行業。

別的例子諸如ETS, A. C. Nielsen, Inc.。前者做測驗，後者做市場調查。但他們的基本技術，全是統計學。

當然，你可以說，他們還有別的東西。Barra Model 的後面是證券財務管理，ETS後面的教育測試，而A. C. Nielsen 的後面是市場學。話說到這裡，其實意思已十分明白：你不能為工具而發展工具。工具的目的是使用，只有在極度使用之後尚嫌不足的時候，發展特殊工具才會帶動實質成長。

用最底層的測量來看，那就是說：統計及相關科系的畢業生的就業情形有沒有實質成長？

前面說過，統計是以數據為食物的動物。

統計的本業是消化數據，並產生有營養的結果。它的本質，和母牛相差不多：



當數據型式改變的時候，我們就應該發明新的方法，以消化新的數據型式。驗諸統計方法的發展，我們發現在數據少的時候、在數據不完全的時候、在數據很多的時候、以及在數據極多的時候，統計全都有不同的方法、角度、邏輯、甚至哲學態度去面對。目前，好像並沒有甚麼統計人去做 data mining 或者 machine learning。但這至少是一些如何去面對鉅量數據的問題。我們知道， $n \rightarrow \infty$ 時，任何 model 大概都是不對的。因此，利用概度函數及有限幾個參數的那一套傳統方式，在現代的數據又多又容易得到的時候，就會面臨嚴峻的考驗。

我們看統計學的發展史，基本上是在看它因數據的型式或來源的改變而產生的對策。當氣候已然改變，或者我們已預見改變的時候，例如電子及網路已使得極大量的數據可以很容易地取得，如何去調適統計的技術能力，其實是攸關這個行業生存的問題。

統計學是工具。工具必需要有使用的空間及場合，才能見到真正的效益。

「神之於形，猶如利之於刃。未聞刃沒而利存，豈聞形亡而神在哉」

上面這段話，幾十年前曾對年青的胡適產生極大的影響。「鋒利」是磨刀的結果，但一味只是磨刀，是看不到結果的。在三船敏郎所主演的「宮本武藏」裡，有一段場景：宮本拿武士刀給一個磨刀師去磨，磨刀師充分地表現了磨刀這一行的尊嚴，他對武藏說：

「我磨的是武士的靈魂」

話是說得十分高級，但磨完的刀仍然是給武藏拿去做決鬥用。這個電影，如果只是演到磨刀完成就停止，就不會有票房了。

統計有沒有死？會不會萬歲？

只要有米倉，就會有老鼠；只要有數據，就會發展處理數據的方法。但是不是叫做統計學、或者叫做 computer science 的 data mining，就要看這一代的統計人如何因應變局。

那麼，甚麼是統計人？在座各位的認知，我的認知，以及一般人的認知，恐怕都是有些差異的。多年以前，我讀到下面一段有趣的文章：

“You haven’t told me yet,” said Lady Nuttal, “what it is your fiancé does for a living.”

“He is a statistician,” replied Lamia, with an annoying sense of being on the defensive.

Lady Nuttal was obviously taken aback. It had not occurred to her that statisticians entered into normal social relationships. The species, she would have surmised, was perpetuated in some collateral manner, like mules.

“But Aunt Sara, it’s a very interesting profession,” said Lamia warmly.

“I don’t doubt it,” said her aunt, who obviously doubted it very much. “To express anything important in mere figures is so plainly impossible that there must be endless scope for well-paid advice on how to do it. But don’t you think that life with a statistician would be rather, shall we say, humdrum?”

Lamia was silent. She felt reluctant to discuss the surprising depth of emotional possibility which she discovered below Edward’s numerical veneer.

“It’s not the figures themselves,” she said finally, “it’s what you do with them that matters.”

我想，這段話已十分有力地為統計的工作作了註解。

最後，我選一段臺灣作家的作品，讓大家欣賞一下。

離開了卓教授的宅子，站在陽明山的雨夜裡，我找不出下山的方式，沿路上不見任何計程車，走了許久，也未見公車站牌，直到一輛轎車在面前停下，駕駛是個三十來歲的男人。

這個月的小雨，好像從沒真正停過。生平首度搭上了便車，只因爲我看見後座的一個華納卡通金絲雀玩偶，有那樣一只玩偶的男人，該有著一顆溫柔的心吧？打開車門時我想到了近日轟動的社會新聞，割腿之狼，割喉之狼，中山之狼，計程車之狼，這簡直成了一個步步殺機的城市，而我是一隻練舞的小羔羊，但天雨不斷，我上了車。

男人問清了我的去向，提議送我到敦化南路底，他就啓動了車子，又嘎然停車，在我的緊張戒備中，男人解開安全帶探身到腿下，取出一個紙袋。

紙袋中是兩杯飲料，男人解釋說：「本來想喝咖啡，又想喝奶昔，沒辦法決定，就兩杯都買了。正好妳來挑一杯吧。」

兩種都是我不常喝的東西，因爲怕甜。爲著禮貌，我挑了咖啡。

男人果然是溫柔的，只是多語得驚人，開著車，他就有始無終地說起話來，現在他將自己細說從頭。

男人大學時從生物系轉唸了國貿系，畢業之後，順利地考取了公務員，從此在一棟四季吹送冷氣的宮殿裡上班，屬於行政院裡某個掌管統計的單位，說到此處，他自動插播說今天上山是朋友聚會，然後繼續原話題，男人在年少時夢想著的非洲人猿、紅毛猩猩和剛果金剛，抽象化成了數字、數字、數字，說到這裡他就笑了，「有時候看著看著，覺得阿拉伯數字2還真像抱著幼仔的狒狒呢。」他說。

男人負責統計，統計各種物價指數、失業率、進出口成長率、外銷訂單統計、工業生產指數、民間投資成長率……再加上物價波動預估、國際局勢展望、重大政策效應研究，總體的目標是經濟成長率統計，然後將所有數據昇華成景氣燈號，偶爾也換個角度，算出某種叫做國民痛苦指數的東西。

爬在數字間，是純理性非感性的工作，男人這麼解釋說，但是只要事關統計，一定牽涉條件前提設定，那才是數字遊戲奧妙之所在。數據來自民間，前提來自層峰，而層峰感性得奧妙之至，所以男人的工作漸漸地偏離數學，傾向美學，他與同僚們按照指示處理數字，才在上個星期，做出了本季景氣黃藍燈的報告。

「但是有時候不管我看什麼都像泡沫，越看越像，妳看這杯奶昔根本就是泡沫嘛，妳那杯也像。」

這終結了我應酬的興致，男人於是又自轉了話題，等待紅燈時他掏出皮夾，抽出其中一張護貝照片，半帶著靦腆說：「這張照片一直隨身帶著，沒事就看一眼，妳要不要看？」

我看了，藍得要滴出顏料的天，貧瘠的黃地，一條泥路蜿蜒向前隱沒在地平線，路的遠方有些純白色但似乎見不到窗子的建築。攝影技巧並不算好，基本上這是一幅意境薄弱的作品。

「土耳其。」男人接回照片，放回皮夾前深情地又瞥了它一眼。

「你拍的嗎？」

「對啊，是我拍的。」男人說：「上次跟團去旅行，拍了不少照片，回來沖洗出來以後，我就注意到這一張，是在一個銀器市場外面不遠拍的，那時候人站在那裡沒什麼感覺，後來我一直看著照片，一直看，開始就想了，這條路再往前走下去，會到哪裡？那裡的人都在做什麼？有人就說我無聊了，只是很奇怪，這張照片我看得越久，就越像中邪一樣，很想走進那一條路，走下去，就這麼一趟，只要讓我走到盡頭，讓我知道盡頭有些什麼，我就滿足了，有時連作夢都夢到我走在那條泥路上，就算無聊吧，但是我真的就是這麼想。」

「那你就去啊。」

「也許喔。」男人喝了口泡沫狀的奶昔，說：「也許走完就發現，沒什麼意思也說不定。」

男人至此終於沈默了下來。

這篇文章來自朱少麟作的暢銷新作：「燕子」pp.199-201。非常有趣地描寫一個統計人。雖然，我幾乎不認識這樣的統計人。但我想，我要樂觀得多。在座有不少人去過土耳其，土耳其其實很好玩，統計也不是沒有意思，而我們也不會沉默。

ANNOUNCEMENT (12/20/99)

ICSA Year 2000 Applied Statistics Symposium (June 1-3, 2000)

Embassy Suites Hotel, 121 Centennial Ave.,
Piscataway, New Jersey USA

- **Keynote Speaker:** *Professor Marvin Zelen, Harvard University*
Time: *June 3, Saturday*
Topic: *Statisticians, Statistical Science, and the Future*
- **Dinner Speaker:** *Dr. Henry Lee, Commissioner of Public Safety, State of Connecticut*
Time: *June 2, Friday*
- **Pre-Symposium Short Courses and Special Workshop** (*June 1, Thursday*)

TOPIC	INSTRUCTOR	TIME
1. Individual Bioequivalence	Walter Hauck & colleague	9:00 AM-4:00 PM
2. ICH E10 Guidelines and Design Issues in Non-Inferiority/Equivalence Trials	Irving K. Hwang	9:00 AM-4:00 PM
3. Experiments: Planning, Analysis and Parameter Design Optimization	Jeff Wu	9:00 AM-4:00 PM
4. Statistical Programming and DBA in Oracle	Instructor from Oracle	9:00 AM-4:00 PM
5. Design and Analysis of Studies for Genetic Epidemiology.	Kung-Yee Liang & Terri Beaty	9:00 AM-4:00 PM
6. Special Workshop: Presentation Skills – How to Make a Good Statistical Presentation	Weichung Joe Shih	Evening (7:00-9:30 PM)

- Full-day course: \$180, late fee + \$20 (after 4/30/2000); \$90 for student, late fee + \$10
- Special workshop: \$35, late fee + \$5 (after 4/30/2000)

• **Symposium Invited Sessions** (*June 2-3, Friday-Saturday*)

TOPIC	ORGANIZER
1. Missing Covariates	W.Y. Tsai
2. Adaptive Design and Analysis	Gordon Pledger
3. SAS Programming	Danny Chaing
4. Career Mentoring and Development	Tim Chen
5. CRO: Culture & Development	Irwin Ho
6. Data Mining	Xiaodong Sun
7. Bias Sampling	Jiayang Sun
8. Likelihood Ratio Based Inference in Non-Semi-Parametric Settings	Gang Li
9. Statistical Issues in Equivalence Trials	Yi Tsong
10. Statistical Issues at the FDA (CDER, CBER, CDRH, etc.) - Session 1	Greg Campbell
11. Session 2	
12. NIH Sessions/Longitudinal Data	K.F. Yu
13. Taiwan NHRI & Academia Sinica	Chao A. Hsiung / J.P. Liu
14. Business/ Finance Statistics - Session 1	C.F. Lee Y.M. Hong, R.S. Tsai
15. Session 2	
16. Industrial Statistics - Session 1	Smiley Cheng Dennis Lin
17. Session 2	
18. Challenges and Opportunities in Preclinical Biopharmaceutical Research	Jeff Wu Sean Gee
19. Genetic Statistics	Heping Zhang
20. Quality of Life	Alice Hsuan
21. Cancer Trials	Jack Lee W. J. Shih
22. Non-Clinical and Pre-Clinical Statistics	James Chen
23. Data Analytical Techniques in Biostatistics Modeling	Jianqing Fan

Note: Program to be finalized in March 2000.

- **Symposium Registration Fee: (in USD)**

Member Type		Registration Fee	Late Fee (after 4/30/2000)
Regular	Member	\$75	\$10
	Non-Member	\$115	\$10
Student	Member	\$20	\$5
	Non-Member	\$40	\$5

Note: ICSA annual membership fees: Regular (\$40); Student (\$20). ICSA lifetime permanent membership (\$400). Year 2000 ICSA membership fee is included in symposium registration for non-member.

- **Registrar (for short course/workshop and symposium):**

Mr. Jun Zhao
 Department of Statistics
 Hill Center, Busch Campus
 Rutgers, The State University of New Jersey
 110 Frelinghuysen Rd.
 Piscataway, NJ 08854-8019
 (732) 445-2641 (Phone); (732) 445-3428 (FAX)

- **Student Awards and Travel Fellowships:**

A maximum of five students will be awarded for \$300 each (See July 1999 issue of ICSA Bulletin Page 48 for details).

Program Committee:

Co-Chair: Jia-Yeong Tsay (215) 283-0770 Ext. 2331 (jia-yeong.tsay@ibah.com)
 Co-Chair: Zhiliang Ying (732) 445-3748 (zying@stat.rutgers.edu)

Danny Chaing (609) 730-3297 (dchaing@ianus.jnj.com)
 Rongdean Chen (908) 298-4239 (rongdean.chen@spcorp.com)
 Irwin Ho (908) 272-3377 (ho.irwin@kendle.com)
 Irving K. Hwang (908) 725-5992 (IrvingH97@aol.com)
 Frank Shen (609) 818-6505 (Shenc@bms.com)
 Weichung J. Shih (732) 235-6791 (shihwj@umdnj.edu)
 Kao-Tai Tsai (973) 325-5383 (tsaik@am.father.mr.akzonobel.nl)
 Weiyong Yuan (609) 730-3009 (weiyong_yuan@janus.jnj.com)

ICSA Membership for 2001: -----\$_____

_____ Annual ICSA regular membership fee: \$40

_____ Annual ICSA student membership fee: \$20

_____ Lifetime ICSA permanent membership fee: \$400

Note: New member needs to fill out ICSA Membership Application Form (which can be downloaded from <http://www.icsa.org>).

Banquet (June 2, Friday): (\$35 + _____ x \$25/each additional family member) \$_____

Donation: -----\$_____

Total Amount Included: -----\$_____

PLEASE SEND REGISTRATION FORM WITH CHECK (Payable to ICSA) TO:

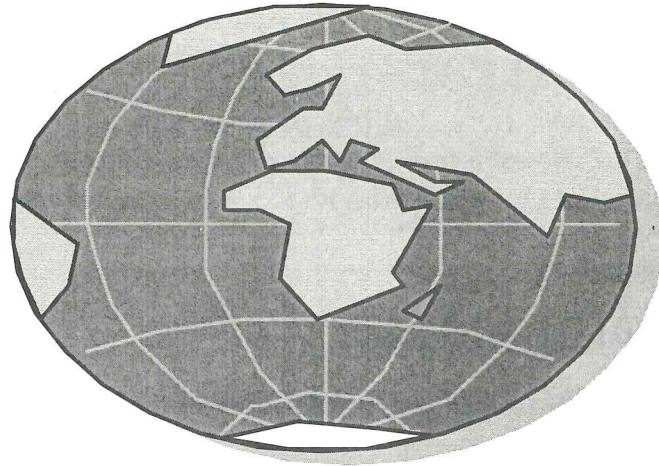
Mr. Jun Zhao
Department of Statistics
Hill Center, Busch Campus
Rutgers, The State University of New Jersey
110 Frelinghuysen Road
Piscataway, NJ 08854-8019
Phone: (732) 445-2641; Fax: (732) 445-3428

Cancellation Policy: Cancellation made by **May 15, 2000** will have 80% fee refunded. No refund will be honored for cancellation after this date.

HOTEL INFORMATION

Participants should book their own hotel reservations. ICSA has arranged special group rates (for June 1–3, 2000 only) with the following two hotels:

1. **Embassy Suites Hotel** (Phone: 732-980-0500 or 1-800-EMBASSY; Fax: 732-457-9610)
121 Centennial Avenue, Piscataway, New Jersey, 08854
\$102/day + tax.
2. **Holiday Inn Somerset** (Phone: 732-356-1700 or 1-800-465-4329; Fax: 732-356-0939)
195 Davidson Avenue, Somerset, New Jersey, 08873
\$69/day + tax (single or double room) – Reservation received after **May 12, 2000** will be subject to availability and may not qualify for the group rate.



The 5th ICSA International Conference Hong Kong, August 17–19, 2001

The main venue for the above conference will be at the University of Hong Kong, Pokfulam Road, Hong Kong. The above dates are chosen with the purpose that potential participants can easily make arrangements to attend the International Statistical Institute meeting to be held in Seoul, South Korea on the following Wednesday.

The Conference Programme Committee members listed below would appreciate your suggestions about the topics of the invited sessions and possible short courses. Please contact any of the committee members about your suggestions of potential topics, speakers and session organizers.

W.K. LI (University of Hong Kong) (Programme Chair)

hrntlwk@hku.hk

H. Tong (University of Hong Kong)

htong@hku.hk

K.T. Fang (Baptist University of Hong Kong)

ktfang@hkbu.edu.hk

Fred Ho (Census and Statistics Department,
Hong Kong SAR Government)

fwkho@hk.net

Xiao-Li Meng (University of Chicago)

meng@galton.uchicago.edu

Jianqing Fan (Chinese University of Hong Kong
and University of North Carolina)

jfan@sonia.math.ucla.edu

Call for Nomination for President and Board Directors

The ICSA Nominating and Election committee invites you to nominate candidates for the 2000 President-elect and five members of board directors.

The minimum qualifications for the President-elect and Board Directors are as follows:

The candidates for President-Elect must

1. have been an active member for at least three years
2. have held office of ICSA (e.g. Director or Committee Member)
3. commit to chair Board meetings during the year of presidency
4. commit to attend at least one Board meeting per year as president-elect and past president (exception can be made for candidates outside North America).

The candidates for Directors must

1. be current members
2. if resides in North America, commit to attend at least one Board meeting per year; if resides in Taiwan or HK, attend at least two Board meetings in three years; if resides in China, will attend at least one Board meeting in three years.
3. when unable to attend the Board meeting, send a proxy.

Please check with nominees about their qualifications before you submit their names to Nancy Lo, the Committee Chair. Nomination deadline is February 28, 2000. In your nomination, please include for each nominee: name, affiliation, address, and a paragraph of reasons for your nomination.

You may nominate one for President-elect and five for the board directors. Your input is important as the success of ICSA depends on strong leadership, which can best be produced from a broad pool of candidates of these two offices. We are looking forward to receiving nominees from you.

Please submit your nomination to

Nancy C.H. Lo

Southwest Fisheries Science Center

P.O. Box 271
La Jolla CA 92037

e-mail : NLO@UCSD.EDU
FAX: 619-546-56565
Phone: 619-546-7123

Nominating and Election Committee:

Nancy C.H. Lo, Chao Agnes Hsiung, Dennis K-J Lin and Mei-Cheng Wang.

Nominations for 2000 ICSA Awards

The ICSA Awards Committee invites you to nominate candidates for the 2000 ICSA Awards. The committee is looking for "a few good members" who have made significant contributions to the Association. Examples of candidates are members who have:

1. Successfully organized and conducted a professional meeting
2. Effectively led the ICSA activities
3. Held a strong and effective editorship (including associate editorship) for *Statistica Sinica*
4. Substantially increased the ICSA memberships
5. Initiated and implemented a policy which resulted in a substantial visibility for the ICSA
7. Established strong ties with other professional societies and co-sponsored statistics activities with them.

In your nomination please include the nominee's name, title, address, a description of his/her significant contributions and the names of other ICSA members or statisticians who are familiar with the nominee's contributions. Once the awards are decided, they will be presented in August 2000 in Indianapolis.

The committee will select the most deserving candidates, who have made multiple significant contributions resulting in a strong positive impact to the Association, to receive awards. Preference will be given to those who have not previously received such an award.

Your nominations must be received no later than February 28, 2000. Please send your Nominations to:

Jack C. Lee
Chair, ICSA Awards Committee
c/o Department of Statistics
Columbia University
2990 Broadway
New York, NY 10027



ICSA BOOK AND JOURNAL DONATION SERVICE

T. Timothy Chen

Purpose: Provide a service to the teaching/research institutions anywhere in the world.

Procedure for requesting books and journals:

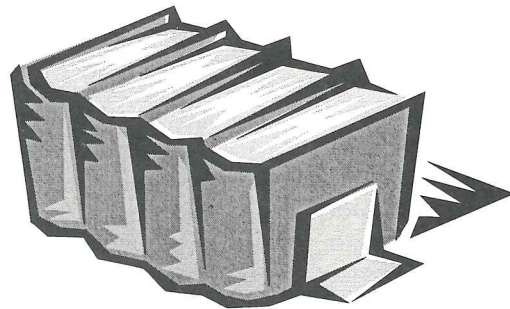
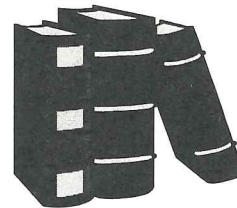
If any valid academic or research organization has need of statistics books or journals, please send me a want list.

Procedure for donation:

If any ICSA member has books or journals to donate, he/she can send me a list. Journals must be of complete year. Books must be in excellent condition. Donations of books and journals are tax deductible.

Procedure for completing the service:

I will try to match the donation and want lists. If there is a match, I will notify both parties. The owner will send directly to the institution, and ICSA will reimburse the mailing cost.



**My address: Dr. T. Timothy Chen, Professor and Head of Biostatistics Section,
University of Maryland Greenebaum Cancer Center, 22 South Greene Street,
Rm N9E28, Baltimore, Maryland 21201. My e-mail address:
tchen001@umaryland.edu.**

REGIONAL ACTIVITY

Some Events of the Hong Kong Statistical Community in 1999

W.K. LI

- The Hong Kong International Workshop on Statistics in Finance, Gold Coast Hotel, Hong Kong, 5-8 July, 1999.

The workshop was organized by the Centre of Financial Time Series of the University of Hong Kong with generous support from the University. About 50 eminent academics, practitioners and graduate students interacted at closed quarters during the four day intensive workshop. Professors George Tiao, C.W.J. Granger, Howell Tong, Ruey Tsay, Peter Brockwell, Peter Robinson, Casper de Vries, G. Kitagawa, Paul Embrechts, N.H. Chan, K.S. Chan, H. Pesaran, Mike McAleer, K. Lam, W.K. Li, Y.W. Cheung, Hong-Zhi An, Zhong-Jie Xie and Ray Chou were among the participants. Many excellent papers on statistical methodologies in finance were presented. An agreement has been reached with the international publisher, World Scientific to publish the proceedings of the workshop. The monograph will probably appear in the Spring of 2000. H. Tong, W.K. Li and W.S. Chan are the joint editors of the monograph.

- Symposium on Financial Risk and Statistics, Conrad Hotel, Hong Kong, 9, July, 1999.

Again the Symposium was organized by the Centre of Financial Time Series of the University of Hong Kong. This was held right after the international workshop and aimed to promote interaction between academics and local financial institutions. Mr. K.C. Kwok, Chief Economist of the Standard Chartered Bank, Hong Kong, Mr. Roger Luk, deputy chief executive of the Hang Seng Bank and Mr. Matthew Harrison of the Stock Exchange of Hong Kong spoke from the practitioner's perspective. Professor C.W.J. Granger of the University of California, San Diego and Professor W.K. Li of the University of Hong Kong spoke as academics working in the area.

- Mr. Alvin Wing-Kong Li was re-elected as the president of the Hong Kong Statistical Society. Mr. Li is an Assistant Commissioner of the Hong Kong Census and Statistics Department. Dr. Wu Ka-Ho of the Chinese University of Hong Kong was elected Vice-president.
- The Department of Statistics of the Chinese University of Hong Kong has launched a new undergraduate program on Risk Management Science.
- Professor L.K. Chan is due to return to the Department of Management Science, the City University of Hong Kong in January 2000 after a long leave in Canada.
- Professor Brian D.O. Anderson, a leading scholar in control theory visited the Department of Applied Mathematics of the Hong Kong Polytechnic University in November. He delivered two public lectures entitled "Two Thousand Years of Control and Automation" and "New Developments in the Theory of Positive Systems", respectively on November 5 and 3.

I apologize for missing some of the important events due to lack of information and space limitation.

Introduction of the Statistics Department at National University of Singapore

The Department of Statistics and Applied Probability at National University of Singapore was founded in April of 1998. The department currently has about 40 faculty members, 50 graduate students and a few hundred undergraduate students. The department has excellent facilities including a computer network, which provides computing support on a number of platforms for teaching and research. Some of the areas of research that the faculty engage in are bootstrap, model selection, nonparametric regression, probability limit theorems, sampling, statistical computing, Stein's method and times series analysis. A biostatistics unit within the department was recently created which collaborates with the Faculty of Medicine. The department is still in an expansion phase and is recruiting this year. All areas will be considered although the emphasis at this point is biostatistics.

Prepared by Tailen Hsing

STATISTICS' DELIGHT

統計趣聞

ZCL095

"Look at the license plate of the Porche-911 parked by the street," David said as he and Andrea were taking a walk after dinner, heading back to the school library: "ZCL095."

"Have you learned the normal distribution yet?" David asked Andrea. She turned and looked at him with a puzzled face. "How about interval estimation?" he pursues. "It is the 95% confidence interval under the normal distribution."

Background: David is an undergraduate statistics major while Andrea is majored in law.

Quantitative Economics

Bob was sweating but excited when he came into the kitchen after work, "Dear, guess what, I saved 2.5 bucks. I didn't take the bus home today. Instead, I chased after it."

Shaking her head, his wife wasn't pleased at all. "You fool, you could have chased a taxi, then you would have saved \$25!!"

C12 MONDAY, JANUARY 3, 2000

DILBERT SCOTT ADAMS



WELCOME NEW MEMBERS

We would like to welcome new members who joined between August 1999 and December 1999.

Chang, Yueh
Cui, Hengjian
Fang, Ji-Qian
Guo, Wensheng
Tsao, Chen-Hai
Wang, LiQun
Wang, Sheldon

Chiu, Hsiaoting
Demirtas, Hakan
Geng, Zhi
Tang, Boxin
Wang, Jin Fang
Wang, Mey
Yang, Ying

DONATIONS

Between August 1999 and December 1999, we have received donations from:

Chen, William
Chiang, Yu-Kun
Han, Chien-Pai
Lee, Shiu
Tiao, George
Yeh, Arthur

Chiang, Chin Long
Chuang-Stein, Christy
Hsieh, Hui K.
Lo, Nancy
Tsay, Jia-Yeong
Zhou, Julie

HELP LOCATE MEMBERS WITH ADDRESS CHANGED

We have the following members who paid their membership due up to 1998 or 1999, but their address changed and hence we can not contact them. Please help us locate these members, if you happen to know him/her.

Chen, Chan-Fu
Cheng, Yen-Chieh
Li, HuaiXiang Helen
Lin, Daphne
Lu, Hong
Qu, Peng Roger
Xiao, LangTao
Yu, Yu

Chen, Li
Chiang, Chin-Tsang
Li, Kate
Lin, Su-An
Lu, Lisa
Tan, Shu-Jane
Xie, Qun
Zhou, LingZhi

If you have any information regarding these members, please contact the Executive Director of ICSA:

Naitee Ting, 198 Spicer Hill Road, Ledyard, CT 06339-1534
Phone (860) 441-4871, Fax (860) 441-3219,
or email TINGN@PFIZER.COM.

MEMBERS' ACTIVITIES

- Dr. Danyu Lin from Washington University, Seattle, would like to share with us his three news-worthy events this year.

1. He was elected to IMS fellow.
2. He was appointed as an associate editor for *Biometrika*.
3. He received the Mortimer Spiegelman Award from the American Public Association for outstanding contributions to health statistics.

Note: The award is given annually to a statistician under the age of 40 since 1969. Past recipients include who-is-who in biostatistics (Mitch Gail, Norm Breslow, Ross Prentice, Tom Fleming, Steve Lagakos, Buth Tsiatis, L J Wei, Scott Zeger, Ron Brookmeyer, John Crowley, Kung-Yee Liang, etc.)

- Dr Ming Tan and his wife Donna Tan are proud parents of a baby girl who was born July 9, 1999.

**H. H. Ku, 顧憲祥
1918 - 1999**

Hsien Hsiang (Harry) Ku, former Chief of the Statistical Engineering Division at the National Institute of Standards and Technology (NIST), died of cancer on June 4, 1999, at his home in Kensington, MD.

Harry was born in Beijing, China on March 3, 1918, and came to the U.S. in the late 30's, to study engineering at Purdue University. When Harry completed his Master's degree in civil engineering in 1941, the Second World War had intervened, making his return to China impossible. He went to work for M. W. Kellogg Co. in Texas as a civil engineer in the design and construction of oil refineries. In 1946, he moved to Ottawa to work for the Chinese Government; later on, he moved the family to Washington, DC, where he worked at the Chinese Technical Mission.

During this time, Harry began planning a return to technical work. At the age of thirty-seven he enrolled in George Washington University (GWU) to begin studies in mathematical statistics

that led to a Master's degree in 1960 and a Ph.D. degree in 1968. Solomon Kullback advised him on his Ph.D. thesis on contingency tables. In 1959, while at GWU, he accepted a position in the Structural Engineering Section of the Building Technology Division of the national Bureau of Standards (NBS, now NIST). He enrolled in a course that was being taught by Marvin Zelen and William S. Connor of the NBS Statistical Engineering Laboratory (SEL). Harry was their star pupil, and they persuaded SEL chief Churchill Eisenhart to hire him immediately.

From that time on, his career in NBS flourished as a collaborator with notable NBS scientists on significant works related to measurement science such as determination of the atomic weights of silver, silicon, and rhenium and the redetermination of Avogadro's number. Harry's work is acknowledged in publications on isotopic ratios, on fundamental constants, and on measurement uncertainty. Particularly fruitful was his long-running collaboration with Wilfrid Mann and others in radiation physics, including contributions on evaluating uncertainty in a "Manual of Radioactivity Procedures" published by the National Council on Radiation Protection and Measurements.

He was editor of Volume 1 of NBS Special Publication Series 300: Precision Measurement and Calibration: Statistical Concepts and Procedures, and he contributed a truly outstanding paper, "Notes on Propagation of Error" to that publication which, to this day, is the most informative paper on this subject.

In 1974, he received the Department of Commerce (DOC) Silver Medal for meritorious service. The following year he received a Special Achievement Award and was cited particularly for his contributions to the NBS Standard Reference Materials Program and for his contribution, on Certified Values and Their Meaning, to NBS Monograph 148. In 1981, he received the DOC Gold Medal.

Harry was a Fellow of the American Statistical Association and of the American Association for the Advancement of Science, and was elected a member of the International Statistical Institute. He was a member of the Institute of Mathematical Statistics, the Royal Statistical Society (London), the Biometric Society,

and the Bernoulli Society for Mathematical Statistics and Probability.

In 1978, Harry's beloved wife Rubye died, and in the same year he became the Division Chief of the renamed statistical Engineering Division (SED) and continued in that role until his retirement in 1985. In 1980, he met Helen Hamstra on a Christmas cruise. They married on July 2, 1981 and lived in Kensington, MD, for eighteen years. After his retirement, Harry and Helen spent two years in Geel, Belgium, where Harry had accepted two assignments at the Central Bureau for Nuclear Measurements, working with international scientists on assessment of measurement error.

Besides his professional and international achievements, those who knew him well remember Harry for his elegance and generosity of spirit. Many times, he brought young friends and relatives from China to his home where he saw not only to their financial well-being but also to their introduction to American customs.

Harry is survived by his wife, Helen Ku of Toronto, Ontario; his son, Richard Ku of Providence, Rhode Island; his grandchildren, Otis Ku, of Chapel Hill, NC; Clyde Ku of Washington, DC; and Ran Ku of Boston, MA; his brother, T. J. Ku of Shanghai, China and his sister, Mary, of Jiling, China.

Carroll Croarkin and Joan Rosenblatt
Statistical Engineering Division, NIST

星島日報

匹克競賽期間，他和中國隊的學生們用國語交流，相談甚歡。

羅博深的父母廿年前移居美國，父親現任威斯康辛大學統計學系教授，母親早年畢業於新加坡大學科學數學系。由於家庭的影響和指導，羅博深從小就對數學感興趣，而且極有天赋和才能。他有志於未來向數學發展，可能去威斯康辛大學深造，將來像他父親一樣，成為一名數學系教授。

本屆美國奧林匹克數學隊員從全美高中生中選拔，經過地區、州和全國測驗，先從一萬名應徵者中選出廿四人，在六月九日至七月八日參加內布拉斯加州林肯大學舉辦的奧林匹克數學訓練營，經過培訓和測驗，篩選出前八名頂尖學生入選美國奧林匹克數學代表隊，參加本屆國際數學奧林匹克競賽。上屆美國隊獲團體第三名。



第四十屆國際奧林匹克數學競賽美國隊銀牌得主羅博深。(圖片由家屬提供)

國際數學奧林匹克賽落幕 華裔學生羅博深勇奪銀牌

(記者丁曙洛杉磯報導)第四十屆國際數學奧林匹克競賽十九日在羅馬尼亞首都布加勒斯特落幕，美國隊贏得團體第十名，其中唯一華裔隊員羅博深(Lo Shen Loh)獲銀牌。中國大陸隊奪得本屆大賽團體冠軍。十七歲羅博深是高中十一年級學生，平時愛好數學、科學、化學和電腦，尤其在數學方面學有專長。九五年，當時羅博深是八年級學生，去華府參加全美初

SAT一千五百五十分，ACT卅五分(卅六滿分)。他的作息習慣很正常，除了校園課堂學習外，課餘時間也在家裡學習一、兩小時，主要是打電腦，學習時間不是太長，但效果很好。此外他還喜歡打乒乓球和跑步。

羅博深出生於美國，他的父母都是新加坡華僑，會講國語，因此他在高中選修的外語是中文，也會講一些國語，在本屆國際數學奧林

中生「數學計算競賽(Mathcounts)」，獲第三名。今年四月中又去北歐的拉脫維亞(Latvia)共和國參加「波羅的海(Baltic)電腦資訊競賽」，得第十三名。

羅博深平時學習成績優異，GPA四點零，

**Division of Biostatistics
National Health Research Institutes
Taipei, Taiwan, Republic of China**

The newly established Division of Biostatistics in the National Health Research Institutes in Taiwan is seeking outstanding researchers for the positions at the level of Assistant Investigator, Associate Investigator, and Investigator (the equivalent of Assistant Professor, Associate Professor, and Professor in Universities). Postdoctoral positions are also available. These are fully funded positions with sufficient opportunities for independent research and without teaching obligation. Candidates should have a Ph.D. or equivalent in statistics, biostatistics, or related fields. Individuals with established records of statistical and collaborative research in health related sciences are welcome. Strong problem solving, organizational, interpersonal verbal/written communication skills are plus.

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Applicants should send

1. Curriculum vitae with publication list
2. Reprints of major recent publications
3. Three reference letters
4. Research plan

To: Chao Hsiung, Ph.D.
Director
Division of Biostatistics
National Health Research Institutes
128 Yen-Chiu-Yuan Road, Section 2
Taipei 11529, Taiwan, R.O.C.
Tel: 886-2-2653-4401 ext. 7111
Fax: 886-2-2789-0253
e-mail: hsiung1@nhri.org.tw

More information about the Division of Biostatistics in the National Health Research Institutes can be found at our web site: <http://www.nhri.org.tw/b5/biost/biost.htm> for Chinese version, and <http://www.nhri.org.tw/en/biost/biost.htm> for English version.

International Chinese Statistical Association

Balance Sheet As of December 31, 1999

Prepared by Xiu (Sue) Chen

Dec 31, '99

ASSETS	
Current Assets	
Checking/Savings	
6 Month CD	25,000.00
Checking	3,616.81
Saving	60,777.82
Total Checking/Savings	89,394.63
Total Current Assets	89,394.63
TOTAL ASSETS	89,394.63
LIABILITIES & EQUITY	
Equity	
Retained Earnings	76,882.90
Net Income	12,511.73
Total Equity	89,394.63
TOTAL LIABILITIES & EQUITY	89,394.63

ICSA SYMPOSIUM ACCOUNT (July 1998 – Nov. 1999)

Prepared by Yi Tsong, ICSA Applied Statistics Symposium Account Treasurer

Item	Date	Credit	Debt	Balance
General Account Balance	7/18/98			8780.37
From 1998 Symposim Account Balance	3/12/99	6601.25		15381.62
Membership fee transferred to ICSA account	9/30/98		1710.00	
Yr 2000 symposium Starting Fund	3/20/99		3000.00	10671.62
Yr 1999 symposium balance transfer	10/30/99	887.83		11559.45
Interest		87.04		
Services Charges			92.65	11553.84

1999 ICSA APPLIED STATISTICS SYMPOSIUM – INCOME AND EXPENSE DETAILS

Prepared by Yi Tsong, Nov. 20, 1999

	Credit	Debit	Balance
INCOME:			
Donation	7142.00		
Banquet and Karaoke	1517.00		
Registration	9460.00		
Short course	8230.00		
GU Deposit Refund	1950.00		
Housing	540.00		
Membership	3640.00		
Total Income			32479.00
EXPENSE:			
Symposium General expense			
Banquet, Karaoke and souvenir		5988.89	
Plaques and certificates		576.77	
Keynote and Dinner Speakers (travel)		641.00	
Permanent membership for K. and D speakers		800.00	
Symposium Program			
Program committee meetings		650.42	
Program preparation		505.84	
6 Student awards		1800.00	
Meals + snack +drinks		5457.68	
Facility		2391.30	
Short Courses			
Lecturer & notes		6865.43	
Meals +Breaks		1078.24	
Facility & Security		1195.60	
General membership		3640.00	
Total Expense			-31591.20
BALANCE (Transferred to General account)			887.83
MEMBERSHIP FEE (transferred to ICSA main account)			4440.00



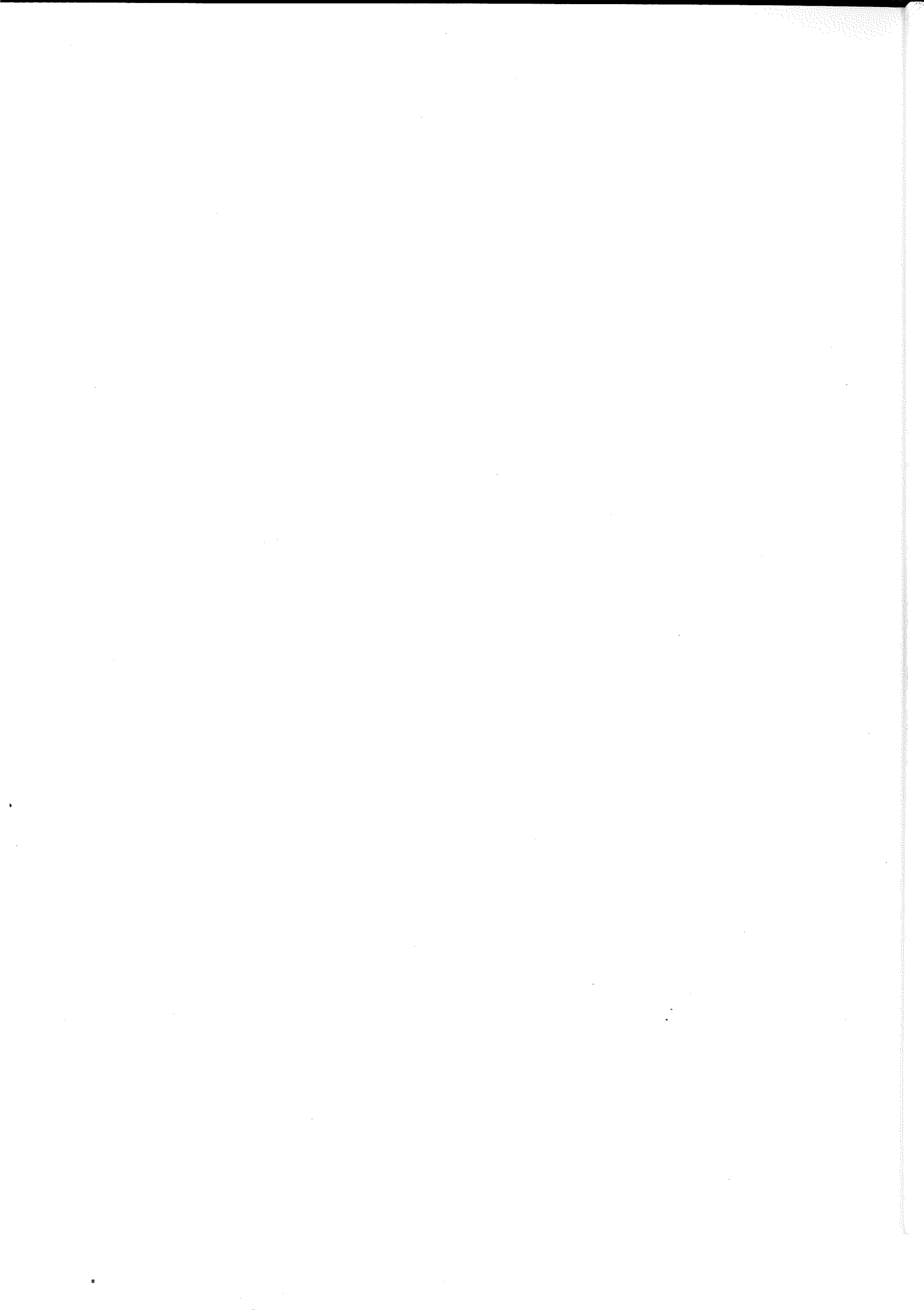
INTERNATIONAL CHINESE STATISTICAL ASSOCIATION

Membership Application / Renewal Form (2000)

Date _____

<u>NAME</u> (Last)		(First)	
English:			
Chinese:			
<u>ADDRESS</u>			
Office:		Home:	
City:	State:	City:	
State:		Zip:	
Zip:		Country:	
Country:		Tel (H):	
Tel (O):		Fax (H):	
Fax (O):			
E-Mail Address:			
Highest Degree:		Year Graduated:	
University:		Occupation/Title:	
<u>MEMBERSHIP FEES</u>			
Regular	US\$40	_____	
Student	US\$20	_____	
Permanent	US\$400	_____	
Spouse (50%)		_____	(Spouse Name _____)
Biometrics (Free)		_____	
Donations		_____	
Total Amount		_____	
<u>STATISTICAL AREA OF INTEREST (circle as many as you like):</u>			
A. Agriculture		F. Health Sciences	
B. Business/Econometrics		G. Probability	
C. Computing/Graphics		H. Social Sciences	
D. Education		I. Theory And Methods	
E. Engineering		N. Biostatistics	
Please make checks payable to I.C.S.A. Mail this form and a check to: ICSA c/o Naitee Ting, Ph.D. 198 Spicer Hill Ledyard, CT 06339-1534 U.S.A. (tingn@pfizer.com)			





I. C. S. A.
198 Spicer Hill
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U.S.A.