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### SOME HIGHLIGHTS FROM THIS ISSUE:

BERNOULLI - a New Journal

Environmetrics and Chemometrics (Bologna, 1993)

The 3rd World Congress Coming Soon

Probability and Statistics at the ICM'94 in Zürich

A Short Lesson in History: The Bernoulli Family

### From the Editor

Beginnings are always exciting, as was the creation of this first issue of Bernoulli News. Probably everybody will secretly think (or frankly say) that we already suffer from enough newsletters. Nonetheless, the Bernoulli Society with its various activities needs a board for communication among its members. I hope that you all make extensive use of this opportunity in contributing to Bernoulli News.

For my first experience with the editing/publishing world fortunately I found solid support from colleagues at ETH and elsewhere, in particular from Ole Barndorff-Nielsen, Paul Embrechts and Richard Gill.

A first issue is always something special and it should be celebrated. Here the name of the Society, the new journal and this newsletter is of course a challenge, which is easily met here in Switzerland, where the Bernoulli family has florished and influenced the public life since the 17th century. A first appetizer you find on p.11. My (nonmathematician) Swiss friends, catching the name Bernoulli, dropped some material on my desk ("This might interest you!"). This was how the lexicon article found its way into this newsletter, and I thank Marianne Aebersold for this charming idea. The problem of translation arose immediately, some of the charm of the article comes undoubtedly from its beautiful language. Here I found an enthusiastic language scientist, M.G. Soland, who did a marvellous translation job. In particular, since it even required research work on the guilds in the 17th century and church positions in the 18th century.

When I started to collect information I wondered how to fill a newsletter. Meanwhile I know better. I am very grateful to all of you, who have contributed to this first issue. Of course, I welcome news and announcements from all BS members. I certainly want to encourage you to send me whatever news you think might interest our colleagues. It is hard to predict, what newsletter this will become, but this will be a matter for all of us.

I hope you support my efforts to make this a lively Newsletter. Of course the best way is to contribute to future issues of Bernoulli News.

Zürich, 10. Mai 1994

Claudia Klüppelberg

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### 1. From the President

The Bernoulli Society Under Way

It is a special pleasure and privilege to have the opportunity, in this first issue of BS News, to report to members of the Bernoulli Society for Mathematical Statistics and Probability about recent undertakings aimed at strengthening the scientific impact of the Society and improving its services to the members.

One of these undertakings is the BS Newsletter itself, which from 1995 onwards will be appearing twice annually. We are most fortunate that Dr. Claudia Klüppelberg, ETH Zürich, has agreed to serve as its first Editor. The Newsletter will report on recent and future activities of the Society and its various Committees. Contributions from the members concerning the life of the Society and the world of probability and mathematical statistics more generally will be welcome.

Another new endeavour is the creation of a Bernoulli Society journal for mathematical statistics and probability. The name of the journal is BERNOULLI, and it will appear four times annually, the first issue to be published in March 1995. The journal will be part of the membership benefits. The publisher is Chapman and Hall, with whom the Society has been able to establish a very satisfactory contract. Detailed information about the Editorial Policy, the Editorial Board, etc. is given elsewhere in this Newsletter. Please support the journal, and hence the Society, by submitting some of your best work.

Several new committees have been set up within the last year in order to further build up the infrastructure of the Society and to develop the Society's relations with other bodies, in particular the International Statistical Institute and the Institute of Mathematical Statistics. These committees are: The Structure Committee, which has been and is considering major general issues and which is chaired by the Past President Peter Bickel; The Publication Committee, chaired by President Elect Jozef Teugels; The BS/IMS Liaison Committee, which should ensure fruitful contacts and collaboration between the two societies, in selected areas, and which is headed jointly by Willem van Zwet, for IMS, and by the undersigned for BS.

With the growing of the range of activities of the Society it is becoming increasingly difficult for a single person to handle all the business usually referred to the Scientific Secretary, and it is therefore intended to split the post of Scientific Secretary into two, one for dealing with the more scientific aspects and the other of a more administrative nature.

Major forthcoming events are the Third BS World Congress, to be held as a joint meeting with IMS, in Chapel Hill, 20-25 June 1994, and the Fourth World Congress 26-31 August 1996, the venue for which will be the delightful city of Vienna. But there are, of course, many other exciting meetings scheduled for the nearer future and organized by the various regional and subject area committees of the Society. A detailed list of all these activities is available elsewhere in this Newsletter.

If you have questions, complaints, suggestions or plans of relevance to the Society, please do not hesitate to contact any of the Officers of the Society. A list of these, with their addresses is provided elsewhere in the Newsletter.

Ole E. Barndorff-Nielsen

Bernoulli Society President

### 2. BERNOULLI - a New Journal

For a number of years the Bernoulli Society has felt the need for a journal broadly covering its many interests in mathematical statistics and probability. A long process of negotiations and consideration of many options finally led in 1993 to the signing of a contract with Chapman and Hall to publish the new journal BERNOULLI. It will first appear in 1995, with four issues per year.

### **Editorial Board:**

#### Editor-in-chief:

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D. Tjøstheim, Bergen

### **Editorial Policy:**

BERNOULLI is an international research journal devoted to mathematical statistics and probability. BERNOULLI publishes:

- 1. Papers containing original and significant research contributions; with background, derivation and discussion of results in suitable detail; and, where appropriate, with discussion of interesting data sets in relation to methodology proposed.
- 2. Communications, in the sense of new and important findings that merit rapid publication. Manuscripts should not exceed six typewritten pages (in double spacing), including figures, tables and references, and they should bear the word *Communication* above the title on the first page.

Papers of the following type will also be considered for publication provided they are judged to enhance the dissemination of research:

- 3. Review papers which provide an integrated critical survey of some area of probability and statistics and discuss important recent developments.
- 4. Scholarly written papers on some historically significant aspects of statistics and probability.

In special cases papers may be published with discussion.

Manuscripts should be sent to the editor-in-chief. Four copies are required. Manuscripts should be in English and submission implies that the paper is not under consideration by any other journal or publisher and that the paper has not been published or is under publication elsewhere.

### 3. Committee Work

#### ERC

### The European Regional Committee

The object of the Committee is to promote European cooperation in the sciences of probability theory and statistics and their applications, in accordance with the objectives of the BS. The Committee mainly consists of 16 elected members who must be European members of BS. There shall not be more than two elected members from any one country. The officers of the Committee are the Chairman (at present Volker Mammitzsch, Germany) and the Programme Coordinator (at present Elisabeth de Turckheim, France) who are elected by the Committee.

According to the constitution of ERC the Committee shall take an active part in arranging European Meetings of Statisticians (EMS). To this end a rather detailed scenario for the arrangement of such conferences has been set up by the ERC. It is a rule that the EMS are held annually, except in those years in which Bernoulli Society World Meetings are held or the ISI Sessions take place in Europe. So far, twenty EMS have been organized successfully. The 21st EMS is scheduled to be held in Aarhus, 21-25 August 1995. Because of the World Congress of BS in Vienna there will be no EMS in 1996. In 1997 when the ISI has its Session at Istanbul a satellite meeting is planned to take place at Rostock. For both of these conferences as well as for future activities the ERC hopes for a good cooperation with the Institute of Mathematical Statistics.

### LARC

### The Latin America Regional Committee

The object of the Committee is to promote Probability Theory and Statistics in Latin America. So far, the Committee has successfully organized Latin American Congresses of Probability and Mathematical Statistics (Congresos Latinoamericanos de Probabilidad y Estadistica Matemática, CLAPEM). Two took place in Venezuela, and one

in Uruguay, Mexico and Brazil. The next one is to be held in Valparaiso (Chile), November 20-24, 1995.

The current LARC consists of Guido del Pino (Chile) Ricardo Fraiman (Uruguay) Ruben Klein (Brazil) José Leon (Venezuela) Pedro Morettin (Brazil) Luis R. Pericchi (Venezuela) Victor Pérez-Abreu (Mexico, President) Aldo Viollaz (Argentina).

#### CCSP

## The Committee for Conferences on Stochastic Processes

The objective of the Committee is the advancement of the theory and applications of stochastic processes. It organizes the series of conferences on stochastic processes and their applications (SPA). SPA 23 will be held in Singapore, June 19-23, 1995 at the National University of Singapore. The meeting is being organised by L.H.Y Chen, email: matspa95@leonis.nus.sg, FAX: +65 779 5452. The Committee is currently investigating the possibility to hold SPA 24 in 1997 in Chile.

The Committee is chaired by T. Hida (Nagoya) and the members are currently L. Accardi (Roma), R. Adler (Haifa) O.J. Boxma (Amsterdam), S. Cambanis (Chapel Hill) Louis Chen (Singapore), P. Embrechts (Zurich) L. Gorostiza (Mexico), A. Joffe (Montreal), T. Kurtz (Madison) M. Maejima (Yokohama), G.L. O'Brien (North York) R. Rebolledo (Santiago), Eugene Seneta (Sydney) R. Weber (Cambridge), R. Williams (La Jolla) Jia-An Yan (Beijing).

#### **CSPS**

# The Committee for Statistics in the Physical Sciences

The Committee is chaired by Richard Smith (Chapel Hill USA/Cambridge UK). The next issue of the newsletter will include more information on CSPS.

### 4. Report of the Editor of Stochastic Processes and Their Applications

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With the passage of another four years, the editor, Peter Jagers, and the editorial board of Stochastic Processes and their Applications are taking a well earned rest, having been replaced by Robert Adler and a predominantly new team. Both Peter and the board that worked with him did an excellent job, for which they all deserve our heartfelt thanks.

### The new editorial board consists of

S. Asmussen E. Cinlar R. Davis S. Evans	R. Griffiths J. Jacod P. Jagers O. Kallenberg	P.E. Ney S. Resnick L.C.G. Rogers H. Rootzén	M.S. Taqqu W. Wefelmeyer W. Woyczynski O. Zeitouni
J. Gani	T.M. Liggett	R. Schonmann	nisticulum et dans a

Submission/acceptance rates for the past four years were as follows:

Year	Pages published	Submissions	Accepted/condit.acc.	Rejected	Unresolved	Acceptance rate
1990 1991 1992 1993	1098 1094 1476 1802	168 186 190 210	101 87 93 54	92 78	5 78	60% 47% 50% 41%

The current year, 1994, with 12 issues will see about 2,150 pages. Despite this growth, SPA has remained a very cheap journal for Bernoulli Society members, with the 1994 member subscription fee at under 60 US\$. (We strongly encourage interested members to take advantage of this benefit of membership).

If we are already discussing growth and change, it is interesting to observe that during the twenty years of its publication, Stochastic Processes and its Applications moved somewhat from what seems to have been its intended direction, as can be seen by comparing the header pages of 1973 and 1994. In 1973, the journal title was followed by "a journal devoted to the theory of stochastic processes and their applications in science and

engineering". In 1994, we have "an official journal of the Bernoulli Society for Mathematical Statistics and Probability".

In an attempt to return a little closer to its roots, the January 1994 issue carried an editorial discussing this phenomenon, and encouraging the submission of applied and review type articles. In particular, there is editorial interest in more applied papers of two kinds, including review (or, re-view) papers of areas in which stochastic process theory has made significant and interesting advances, and which are not widely known in the mathematical community, and papers describing areas of current interest in which the theory of stochastic processes has yet to make a significant impact, but where there is clearly a need for stochastic modelling.

### 5. Reports on Activities 1993

SPA'93

22nd International Conference on Stochastic Processes and their Applications June 21-25, 1993 Amsterdam (The Netherlands)

The 22nd International Conference on Stochastic Processes and their Applications (SPA'93) was held in Amsterdam, The Netherlands, at the "Vrije Universiteit" from Monday June 21st to Friday June 25th. The organizing committee consisted of Adrian Baddeley (CWI; chairman program committee), Onno Boxma (CWI) and Piet Holewijn (Vrije Universiteit).

Following the traditional format of these conferences on Stochastic Processes and their Applications, the morning sessions were devoted to invited lectures; the speakers were Aizenman, Ben Arous, Delbaen, Caballero, Chayes, Cohen, Föllmer, Hill, den Hollander, Krengel, Maejima, Møller, Peligrad, Pemantle, Protter, Suhov, Weber (closing lecture), Weron, Whitt (opening lecture) and Yan. In the afternoons over 160 lectures were presented. The topics covered by the lectures were widespread, ranging from theoretical to applied probability and including among others: Probability and mathematical physics, probability and finance, probability and communication networks, reliability and queueing theory, discrete probability and random graphs, stochastic geometry, image processing, random sets, stochastic analysis, stochastic control, optimal stopping and partitioning, stable processes, large deviations, population genetics, limit theory for sums, extrema, samples, Brownian motion, statistics for stochastic processes, symbolic calculus in probability.

The attendance (283 participants) was remarkably high. The organizers were especially satisfied with the presence of a large number of scientists from countries of Central and Eastern Europe, made possible by the financial support of the EC and the International Science Foundation. In total 23 scientists from central and eastern European countries were granted financial support to enable them to attend SPA'93.

The next conference on Stochastic Processes and their Applications is scheduled for June 19-23, 1995 in Singapore; Prof. L.H.Y. Chen is the chairman of the local organizing committee.

**CLAPEM V** 

The 5th American Congress of Probability and Mathematical Statistics June 28 - July 3, 1993 São Paulo (Brasil)

The 5th Latin American Congress of Probability and Mathematical Statistics (V Congreso Latinoamericanos de Probabilidad y Estadistica Matemática, CLAPEM) was held at the Instituto de Matemática e Estatistica of the Universidade de São Paolo in São Paolo, Brasil, from June 28th to July 3rd, 1993.

The Congress was jointly sponsored by the Bernoulli Society, the International Mathematical Union, the Inter-American Statistical Institute and the Brazilian Statistical Association.

It was supported by CNPq, FAPESP and FINIP (Brazil), the International Center for Theoretical Physics (Trieste), Organização dos Estados Americanos, British Council, the Bureau Regional de Cooperation Française and local foundations of the participant countries.

During the Congress four short courses and 18 main papers were given by international specialists of most important fields in probability and statistics. Furthermore, more than 90 researchers presented short communications about their research work.

The abstracts of presented papers, short courses and communications were distributed at the beginning of the Congress. The papers and short courses will be published in a special number of Resenhas do Instituto de Matemática e Estadistica da Universidade de São Paolo. The accepted communications will be published in a special number of Revista Brasileira de Probabilidade e Estadistica dedicated to the CLAPEM. All papers will be refereed.

The total number of participants was 168 with the following distribution: Germany 1, Argentina 7, Brazil 91, Canada 1, Chile 10, Columbia 6, Spain 2, France 3, India 1, Great Britain 2, Italy 2, Lithuania 1, Mexico 7, Peru 1, Portugal 2, Russia 1, Switzerland 1, USA 16, Uruguay 8, Venezuela 4. There were 43 students and 125 researchers and professors

The Scientific Committee of CLAPEM V consisted of G. Cordeiro (Recife), C. Dorea (Brasilia),

P. Ferrari (São Paolo, chairman), A. Galves (São Paolo), R. Klein (Rio de Janeiro), M. Marques (Campinas), P. Morettin (São Paolo), G. Silveira (Rio de Janeiro), M.E. Vares (Rio de Janeiro), from Brazil, and R. Fraiman (Uruguay), S. Martinez (Chile), E. Molina (Venezuela), L. Gorostiza (Mexico), V. Yohai (Argentina), representing the other Latin American Countries.

Among others, the following items were treated in the papers, short courses and short communications:

Probability: Interacting particle systems and other special Markov processes, metastability of stochastic and deterministic systems, phase transitions, large deviations, quasi-stationary distributions, reaction diffusion processes, cellular automata;

Statistics: Time series, robustness, bayesian statistics, non parametric estimation, statistical models of epidemiology, pivotal inference.

The participants considered the congress to be a great success due to its high quality and the good organisation. The impact of the congress will be significant in the research and formation of specialists in probability and mathematical statistics in Latin America, as well as in the collaboration of this region with other important centers around the world. The invited lecturers have manifested that the Congress was of international level. The friendly atmosphere among participants was manifested during the congress and in the social events.

The IME-USP (Mathematical Institute of the University of São Paolo) has given all its facilities to help the participants to have a good stay. It also gave invaluable secretarial and informational support.

#### EYSM-8

8th European Young Statisticians Meeting September 5-12, 1993, Palanga (Lithuania)

The 8th European Young Statisticians Meeting (EYSM-8) was held in Palanga (Lithuania) from Monday, September 5 to Saturday, September 11. The organising committee consisted of Dainius Jakimavicius (Lithuanian TEMPUS Office) as chairman, Albertas Zalys (Prime Minister's Office), Aleksandras Plikusas (Institute of Mathematics and Informatics). The meeting was supported by a grant of the European Commission (Cooperation in Science and Technology with Central and Eastern European Countries Programme, grant No

CIPA3510CT924863).

EYSMs are biennial meetings (taking place in Western and Eastern European countries in turn) with the main aim to bring young researchers together to exchange scientific ideas as well as to coordinate future scientific investigations in the field of Probability Theory and Mathematical Statistics.

36 participants from 19 European countries (Belgium, Bulgaria, Byelorus, Czech Republic, Estonia, Finland, France, Germany, Iceland, Italy, Latvia, Lithuania, The Netherlands, Russian Federation, Slovak Republic, Spain, Sweden, Ukraine, United Kingdom) took part in the event.

Every participant presented a 30 min paper, leaving ample time for complementary lectures and discussions in small groups.

The meeting offers an excellent possibility to prop young people (up to 33 years) at the beginning of their scientific career to be introduced to the diversity of current problems in the theory of probability and mathematical statistics.

Environmetrics and Chemometrics 1993 August 21-24, 1993 Bologna (Italy)

In 1990 the Bernoulli Society Committee on Statistics in the Physical Sciences (CSPS) decided to arrange a follow-up conference to the very successful First Conference on Statistics, Earth and Space Sciences held in Leuven, Belgium in August 1989. This follow-up conference took place as a satellite meeting to the 49-th Session of the International Statistical Institute in Florence.

Whereas the first conference had been of a general nature, seeking to heighten the awareness of statisticians in a range of scientific problems, the objective of this meeting was to focus on some specific areas and to endeavour to provide a good environment for statisticians and non-statistical scientists to meet to discuss ways of collaborating more fruitfully in these areas.

Environmetrics was selected as a subject of increasing importance to all countries, and one where the input of statisticians to the decision-making processes of governments was becoming increasingly critical.

Chemometrics was selected as a subject related to the first, a subject where chemometricians have been working somewhat independently of statisticians, and one which was particularly strong in the host country Italy.

The meeting was supported by both the ISI Committee on Industrial Statistics (CIS) and the International Chemometrics Society (ICS). Furthermore, funding could be obtained from the Consiglio Nazionale delle Recherche and the Fondazione Eni Enrico Mattei.

The programme committee consisted of B. Abraham (Canada), D. Cocchi (Italy) (chairman and local organiser), El-Shaarawi (Canada), N. Fisher (Australia) (chairman CSPS), M. Forina (Italy), I. Frank (USA, CIS), P. Geladi (Sweden), D. Lambert (USA), S. Lanteri (Italy), V. Nair (Malaysia, CIS), G.P. Patil (India), W. Piegorsch (USA), D. Pregibon (USA), J.L. Teugels (Belgium, CSPS), S. Vander Wiel (USA).

The Programme Committee endeavoured, where possible, to strike some sort of balance between statisticians and non-statistical scientists, and also to schedule the papers in such a way as to encourage discussion during the formal sessions of the conference as well as at other times during the meeting period. In keeping with BS policy, the speakers were drawn from a wide range of countries.

The scientific program: The meeting was generally structured so that invited environmetrics sessions were held in the morning in parallel with contributed chemometrics papers and vice versa in the afternoons. About 30 invited papers were pre-

sented covering topics from image analysis, statistic concentration and unusual components, environments for aquatic and atmospheric studies, experimental design, computing environment and graphics, water pollution, statistical process monitoring and automatic control in the chemical industry, detecting low concentration and unusual components, environmental sampling and observational economy, regression and calibration. The 32 contributed papers were allocated to different sessions on either environmetrics or chemometrics. A substantial number of these contributions dealt with very specific and/or local problems that opened up unexpected and challenging new statistical issues.

A Panel Discussion on Environmental Statistics for the Year 2000: Directions and Needs, has been planned.

The meeting was attended by some 100 scientists representing 20 countries from Australasia, Europe, North and South America. The meeting was a great success: Participants found the talks and discussion stimulating and some new interactions between statisticians and other scientists have been sparked. The organisers were particularly pleased to notice the active presence of scientists from a wide variety of different occupations: universities, government agencies, research institutes and industry.

### 6. Activities 1994

3rd World Congress 1994 June 20-25, 1994

Chapel Hill (North Carolina, USA)

The 3rd World Congress of the Bernoulli Society, joint with the 57th Annual Meeting of the Institute of Mathematical Statistics, will be held at the University of North Carolina at Chapel Hill, June 20-25, 1994. Program Chair is M. Eaton and Chair of the local organizing committee is R. Leadbetter. Special Bernoulli Society lectures will be presented by H. Chernoff (Bernoulli lecture), A. F. M. Smith (Laplace lecture) and P. Jagers (Kolmogorov lecture). The IMS Wald lectures will be given by C. Stone, the Neyman lecture by G. Wahba and IMS special invited lectures by R. Gray, E. Mammen, E. Perkins and R. Williams.

The invited paper sessions, which are listed below, cover a wide variety of topics in probability, statistics, and applications. There will also be a Royal Statistical Society Ordinary Meeting on Monday, June 25 as well as 50-plus contributed paper sessions. The meeting begins Monday morning and will run through Saturday with the Closing Ceremony occurring at 4:00 PM on Saturday. For detailed information about the meeting

For detailed information about the meeting address enquiries to:

IMS/Bernoulli Society Meeting

IMS/Bernoulli Society Meeting Conferences and Institutes, UNC-CH Division of Continuing Education, P.O.Box 3392, Chapel Hill, NC 27515-3392, USA.

Phone: 1-800-845-8640, FAX: 1-919-962-2061 email: tpc.ce@mhs.unc.edu

There are also several workshop/satellite meetings being held in Chapel Hill in the periods just

before and just after June 20-25.

- INTERFACE '94, June 15-18 workshop on computationally intensive methods in statistics email interface94@sas.com FAX 1-919-677-8224
- Directions in Sequential Analysis, June 18-19 IMS workshop on directions in sequential analysis email bkg0@lehigh.edu FAX 1-215-758-3722
- Pathways to the Future, June 18-19
   Workshop for young women researchers email lynne@marie.stat.uga.edu
   FAX 1-706-542-3391
- Directions in Probability, June 19-21
   Workshop 1: On developments in probability limit theory and their applications to statistics, and
   Workshop 2: On Brownian Motion and analysis.
   Invited lectures plus problem sessions. Eight of the papers will be given on Sunday, June 19, and the remaining papers will be given on Monday and Tuesday.
   email mhahn@jade.tufts.edu
- International Workshop on Stochastic Partial Differential Equations, June 19-21 email gk@stat.unc.edu
- International Workshop on Stochastic Filtering Theory, June 26-28 email maxwell@stat.unc.edu

### **Invited Paper Sessions**

Session organisers are in parentheses, and speakers are listed as far as presently known.

### **PROBABILITY**

- Developments in probability limit theory and their applications in statistics
   (J.A. Wellner and R. Dudley): V. Koltcinskii, S. van de Geer, A. van der Vaart, E. Giné, S. Leventhal, M. Talagrand.
- 2. Brownian motion and analysis

- (R. Williams and M. Yor): R. Banuelos, J.F. Le Gall, M. Barlow, D. Bakry, M. Ledoux, K. Carne, A. Etheridge, T. Salisbury, M. Fukushima, T. Yamada.
- 3. Measure Valued Processes/diffusions
  (E. Perkins): E. Dynkin, R. Tribe, J. F. Le Gall.
- 4. Stochastic networks
  (A. Mandelbaum): N. Shimkin, D. Bertsimas, J. Dai.
- 5. Large deviations and particle systems (F. den Hollander): S. Shlosman, A. Greven, S. Varadhan.
- 6. Rates of convergence for Markov chains (P. Diaconis): J. Fill, D. Aldous, P. Diaconis.
- 7. Probability problems in physics (G. Lawler): H. Kesten, J. Wehr, G. Lawler.
- 8. Stochastic PDE's (E. Pardoux): N. Krylov, C. Mueller, E. Pardoux.
- Probability on trees
   (D. Aldous): R. Pemantle, R. Lyons, Y. Peres.
- 10. Poisson approximation (L.H.Y. Chen): A. D. Barbour, R. Arratia, L. H. Y. Chen
- Probability on Banach spaces
   (M. Ledoux): V. de la Pena, J. Kuelbs, P. Hitczenko.

### **STATISTICS**

- 1. Computationally intensive methods in statistics (C. Geyer): R. Tibshirani, A. Penttinen, C. Geyer.
- M-estimators and maximum likelihood
   (S. van de Geer): T. Bednarski, Yongzhao Shao, Xuming He.
- 3. Adaptive methods in nonparametric estimation (G. Golubev): O. Lepskii, J. Marron, G. Golubev.
- 4. New aspects of multivariate analysis (S. Konishi): R. Butler, Ker-chau Li, S. Konishi.
- 5. Deterministic versus stochastic models in time series analysis (B. LeBaron): S. Ellner, J. Theiler, B. LeBaron.
- 6. Resampling and bootstrap methods (J. Praestgaard): D. Politis, P.J. Bickel, J. Praestgaard.
- 7. Bayesian Computation (J. Besag): M. West, D. Madigan, J. Besag.
- 8. Change point analysis (L. Duembgen): J. Hartigan, M. Pollack, L. Giraitis.
- 9. Likelihood (B. Lindsay): B. Efron, Bing Li, M. van der Laan.

- Statistics of extremes
   (H. Rootzén): Jiayang Sun, J. Tawn, H. Rootzen.
- 11. Time series analysis (R. Davis): R. Dahlhaus, S. Resnick, P. Robinson.
- 12. Statistical estimation problems for stochastic PDE's (R. Khasminskii): A. Bagchi, B. Rozovskii, I. Ibragimov.
- 13. Statistical analysis of functional data (B. Silverman): A. Kneip, J. Ramsay, B. Silverman.

### APPLICATIONS

- Sequential methods in medicine
   (D. Siegmund): B. Yakir, D. Lin, D. Rabinowitz.
- 2. Computer science and engineering (probabilistic algorithms) (J.M. Steele): L. Lovasz, R. Burton, P. Shor.
- 3. The human genome project and molecular evolution (D. Balding): S. Sawyer, T. Speed, D. Balding.
- Statistical methods for data compression
   (R. Olshen): P. Chou, J. Kieffer, R. Olshen.
- 5. Software engineering (S. Dalal): M. Blum, J. Munson, S. Dalal.
- Design and analysis of industrial experiments (Jeff Wu): C. Anderson, B. Tang, R. Keener.
- Statistical methods in climatology (Valerie Isham): A. Buishand, R. L. Smith, V. Isham.
- 8. Statistical methods in molecular science (E. Thompson): G. Churchill, S. Tavare, E. Thompson.
- 9. Statistical methods in image analysis (D. McClure): Y. Amit, V. Johnson, C.S. Raphael.
- Probability in mathematical finance
   (H. Föllmer): Y. Karatzas, W. Schachermayer, A. Shiryaev.

### **ICM'94**

International Congress of Mathematicians August 3-11, 1994 Zürich, Switzerland

This is the third time that the International Congress of Mathematicians will be held in Zürich. 2000 scientists have registered already. The lectures will take place at the Kongresshaus of the city of Zürich and in large lecture halls at ETH and the University of Zürich.

In the mornings, there will be 16 one-hour plenary lectures intended to inform of major develop-

ments and trends in mathematics. They should be surveys, of interest to a wide audience of nonspecialists. In the afternoons there will be 45-minutes lectures in specified sections. These lectures are intended to be surveys of significant topics in the area of the respective section, also accessible to nonspecialists with closely related interest.

### The Bernoulli Society for Mathematical Statistics and Probability

### Membership in the Bernoulli Society

The Bernoulli Society for Mathematical Statistics and Probability is a Section of the International Statistical Institute. It is an autonomous Society which seeks to develop and improve statistical and stochastic methods and their applications through the promotion of international activity and cooperation.

Bernoulli Society members receive the following publications at no additional charge: BERNOULLI, Bernoulli News, Short Book Reviews, International Statistical Review, International Statistical Institute Newsletter; reduced rates to: Stochastic Processes and their Applications, Biometrika, Scandinavian Journal of Statistics, Probability Theory and Related Fields, Statistical Theory and Method Abstracts.

Members also profit from low registration fees for conferences organized or sponsored by the Bernoulli Society. As of 1995 there will be a 20% discount on books published by Chapman & Hall, if ordered directly.

The regular membership dues are: US\$ 54.00, UK£36.00, SF 76.00, FF 304.00, DM 87.00, DFL 98.00. Alongside regular membership dues, the Bernoulli Society is introducing two other dues schemes on an experimental basis for a period of four years, starting in 1994. The aim is to reach more potential members in developing countries and in Eastern and Central Europe.

Permanent residents of countries in the United Nations list of developing and transitional countries can apply for a 50% reduction in the regular membership dues. Reduced dues do not restrict the benefits of membership in any way. Reduced dues are not granted au-

tomatically, but must be applied for at the Permanent Office of the ISI in Voorburg at the address below.

Alternatively, permanent residents of the same countries can apply for membership with extraordinary status. There are no annual dues, but an entrance fee (indicated below) is charged to cover administrative costs of membership, but otherwise extraordinary members will enjoy the usual benefits of individual membership of the Bernoulli Society such as voting rights, eligibility to offices of the Bernoulli Society, lower registration fees at conferences of the Bernoulli Society and reductions to journal subscriptions. However, members with extraordinary status will not receive the publications of the Bernoulli Society at special rates: for instance the annual subscription price for BERNOULLI will be UK£15.

The extraordinary membership entrance dues are: US\$ 17.00, UK£11.00, SF 23.00, FF 93.00, DM 27.00, DFL 30.00.

Please note that all payments have to be made in convertible currency and made payable to the International Statistical Institute.

Please send the membership form to

Erica v.d. Kraan Phone: +31 70 337 5737

Membership Officer c/o ISI Phone: +31 70 386 0025

email: ISI@cs.vu.nl

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	0	Please charge my	0	Euro/Mastercard [] Visacard
Card num	ber (ple	ease print clearly)		Expiry date
Dota				Signature

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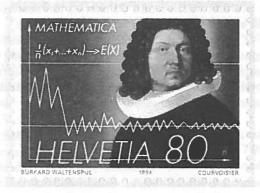
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Plenary Lectures on Probability and Statis-
tics
Varadhan Entropy methods in hydrodynamic scal-
ing
9.8.1994 11.00-12.00
Voiculescu Free noncommutative probability theory, random matrices and
10.8.1994 9.30-10.30
Daubechies Phase space localization and applied
mathematics
11.8.1994 9.30-10.30
Lectures in Sections on Probability and Statistics
Parthasarathy Quantum stochastic calculus
4.8.1994 14.00-14.45
Zhi-Ming Ma Quasi-regular Dirichlet forms and applications
4.8.1994 15.00-15.45
Levin Randomness and non-determinism
4.8.1994 16.15-17.00
Goldreich Probabilistic proof system
4.8.1994 17.15-18.00
Robert Statistical mechanics and hydrodynamical turbulence
5.8.1994 15.00-15.45
Föllmer Probabilistic methods in finance
5.8.1994 16.15-17.00
Tanaka Diffusion processes in random environ-

### For the Philatelist

To celebrate the forthcoming event of ICM 94, the International Congress of Mathematicians in Zürich, August 3-11, 1994, the Swiss mail office has designed a new stamp (SF 0.80). It shows the famous mathematician Jakob Bernoulli and a visualisation of the law of large numbers which he stated in the "ARS CONJECTANDI" (for more information see p. 15). For those attending the ICM the stamp and also the corresponding first-day cover will be available at a PTT stand at the conference. The stamp/first-day cover can also be ordered by mail from the address below. The first-day cover with four stamps is for instance available under the name Mathematik U4, Artikel-Nr. 362, at the price of SF 3.90.

ments	
5.8.1994	17.15-18.00
Slade The critical behavior	ur of random systems
5.8.1994	17.15-18.00
Donoho Abstract statist	ical estimimation and
modern harmonic analysis 6.8.1994	14.00-14.45
Bass Brownian motion, hea	
functions	it kerneis, and narmonic
6.8.1994	15.00-15.45
Young Ergodic theory of a	
6.8.1994	17.15-18.00
Pardoux Backward stoch	
tions and applications	abute differential equa-
8.8.1994	14.00-14.45
Spencer Probabilistic met	hods in combinatorics
8.8.1994	15.00-15.45
Perkins Measure-valued by	ranching diffusions with
interactions	Ul may limble then
9.8.1994	14.00-14.45
Leighton On the use of ra	andomness in the design
of computer networks	o head a contributed to
9.8.1994	14.00-14.45
Gärtner Parabolic system	s in random media and
aspects of intermittency	
10.8.1994	14.00-14.45
Newman Fluctuations in f	first-passage percolation
and related models	Sens to the motions in
10.8.1994	15.00-15.45



Philateliestelle der PTT Zeughausgasse 19 CH-3030 Bern Switzerland

Phone: +41 31 338 3696

WWP'94

Workshop for Women in Probability October 16-18, 1994 Cornell (New York, USA)

The Mathematical Sciences Institute (MSI) at Cornell University will sponsor a "Workshop for Women in Probability" to be held at Cornell on October 16-18, 1994. Molly Hahn and Ruth Williams are the organizers of this workshop. The workshop will begin Sunday morning and end Tuesday at noon.

The workshop will feature talks given by Carol Bezuidenhout (U of Rochester), Jennifer Chayes (UCLA), Alison Etheridge (U of Edinburgh), Raya Feldman (UCSB), Antonia Foldes (CUNY, Staten Island), Cindy Greenwood (UBC), Molly Hahn (Tufts U), Claudia Neuhauser (U of Wisconsin), Vien Nguyen (MIT), Magda Peligrad (U of Cincinnati), Marta Sanz (U of Barcelona), and Ruth Williams (UCSD).

In addition, anyone attending the workshop may present a contributed talk. Recent Ph.D.'s and finishing graduate students are especially encouraged to prepare a short presentation for this part of the workshop. Other activities include lunch time discussions and one or two panels on issues of interest to all participants (the exact subjects of the panel discussions will be announced at a later date). On Sunday evening there will be a dinner for workshop participants at which Alexandra Bellow has agreed to be the guest speaker.

It is hoped that as many women in probability as possible will attend. Of course, the conference will also be open to men who wish to attend.

There is funding from MSI to partially support women probabilists, especially young researchers. Those wishing to attend the Cornell workshop should send a request for registration materials to

Diana Drake, Mathematical Sciences Institute 409 College Avenue Ithaca, New York, 14850 phone: +1-607-255-8005 email: dld8@cornell.edu

Information on how to register, how to submit an abstract for a short presentation, and how to apply for a travel grant will be sent by return email or return regular mail, as appropriate. Other questions may be directed to the organizers email: womprob@math.ucsd.edu SemStat 1994 Séminaires Européens de Statistiques December 12-17, 1994 Oxford (UK)

Workshop Likelihood, Time Series, with Econometric and other Applications.

This will be a successor to the successful Sem-Stat workshop "Statistical Aspects of Chaos and Neural Networks", which took place in April 1992 at Sandbjerg Manor in the southern part of Denmark. The Oxford SemStat will be chaired by David Cox and David Hinkley, and will be organized locally by members of Oxford Statistics Department and Nuffield College Oxford.

The basis of the meeting will be a mixture of substantial introductory review papers and of individual seminar-type lectures, with much time for discussions. Four main review papers will be presented:

Nan Laird Panel Data
Søren Johansen Cointegration
Jørgen Aase Nielsen Pricing contingent claims
Neil Shephard ARCH and Stochastic Volatility

The number of participants is limited to about 40, around two-thirds of whom will be young statistical researchers at the post-doc level. It is hoped that most or all of the participants will either be involved in workshop sessions or else give seminar talks on their own work, whether that falls within or outside the main topics of the SemStat. The main purpose of the SemStats is to bring strongly talented young European statisticians, at post-doc level, to the forefront of research in fields of great current and potential interest. The European Union has made funding available under its Human Capital Mobility Euroconference scheme, to support attendance by some young scientists from the EU. Strong space limitations mean that participation in the SemStats will be by invitation only: however if you are interested in attending the Oxford SemStat then do please communicate your interest to Wilfrid Kendall at the address below.

W.S Kendall
Department of Statistics
University of Warwick
Coventry CV4 7AL, UK
email w.s.kendall@warwick.ac.uk

### 7. Conferences 1995

#### SPA'95

23rd International Conference on Stochastic Processes and their Applications June 19-23, 1995 Singapore

The scientific program committee consists of A. A. Borovkov (Novosibirsk), O. J. Boxma (Amsterdam), L. H. Y. Chen (Singapore, chairman), P. Donnelly (London), M. Fukushima (Osaka), P. Hall (Canberra), C. R. Hwang (Taipei), P. Jagers (Gøteborg), T. G. Kurtz (Madison), T. L. Lai (Stanford), J. A. Yan (Beijing), M. Yor (Paris).

L.H.Y Chen or J.H. Lou
Department of Mathematics
National University of Singapore
Lower Kent Ridge Road
Singapore 0511
Republic of Singapore
email: matspa95@leonis.nus.sg
FAX: +65 779-5452

### **EMS'95**

21st European Meeting of Statisticians August 21-25, 1995 Aarhus (Denmark)

The scientific programme committee consists of Per Kragh Andersen (Copenhagen), Peter Green (Bristol), Piet Groeneboom (Delft), Paul Embrechts (chairman, Zurich), Albert Shiryaev (Moscow), Elisabeth de Turckheim (Jouy-en-Josas).

The local organizing committee consists of Anders Holst Andersen, Jens Ledet Jensen, Eva B. Vedel Jensen, Jesper Møller, Michael Sørensen (chairman) and Oddbjørg Wethelund.

EMS'95 Phone: +45 8942 3188
Institute of Mathematics +45 8942 3532
University of Aarhus FAX: +45 8613 1769
Ny Munkegade
DK-8000 Aarhus C
Denmark ems95@mi.aau.dk

### CLAPEM VI November 20-24, 1995 Valparaiso (Chile)

The next edition of the newsletter will include more information on CLAPEM VI.

#### **ISI'95**

50th Biennial Session of the ISI August 21-29, 1995

Beijing (The People's Republic of China)

Chairman of the programme committee is J.L. Bodin (Paris, France). P. Diggle (Lancaster, UK) is the BS representative on the ISI programme coordination committee. Invited paper sessions organised by the Bernoulli Society (tentatively):

1. Applications of statistical methods in industry (joint with ISI), Jef Wu (Ann Arbor, Michigan).
2. Special lectures in probability, Ping Chen (Beijing).
3. Inference from networks, S. Lauritzen (Aalborg, Denmark) 4. Accurate approximations in parametric models, J. L. Jensen (Aarhus, Denmark) 5. Markov fields and applications, A. Frigessi (Venice, Italy) 6. Statistics of extreme values, R. Smith (Chapel Hill, NC) 7. Non-linear time series, Rodney Wolff.

It is hoped that there will also be a wide range of special topic contributed paper sessions of interest to the Bernoulli Society; this kind of session is intermediate in form between the classical invited and contributed paper sessions, in that an organiser actively solicits contributions on a special theme. Suggestions of BS members for special topic contributed paper sessions are welcome and should be sent to P. Diggle, email: maa026@cent1.lancs.ac.uk The address of the local organizer is as follows:

Secretariat of the ISI Session +86 1 381 0965 c/o State Statistical Bureau 38 Yuetan Nanjie Beijing 100826, The People's Republic of China email: wangjl@bepc2@slac.stanford.edu

+86 1 381 0051

### FAX: +86 1 381 0035 SPRUCE'95

December 11-15, 1995 Mérida (Yucatan, Mexico)

Mr. Feng Nailin, Director

The 3rd SPRUCE International Conference (Statistics for Public Resources and Utilities, and Care of the Environment) will be held at Mérida, December 11-15, 1995. Information address:

Victor Pérez-Abreu Phone: +52 473 27155
CIMAT FAX: +52 473 25749
Apdo. Postal 402
Guanajuato, Gto
36000 Mexico pabreu@conacyt.main.conacyt.mx

### 8. Conferences 1996

4th World Congress August 26-31, 1996 Vienna (Austria)

The 4th World Congress of the Bernoulli Society will be held at the University of Vienna, August 26-31, 1996.

The programme committee is chaired by Friedrich Götze (Bielefeld). Suggestions of BS members for topics and speakers are welcome and should be made to the chairman.

Friedrich Götze	+49 521	106 4796	office
Fakultät für Mathematik		106 4743	FAX
Universität Bielefeld		106 4797	secr
33501 Bielefeld		106 4970	<b>SFB343</b>
Germany		106 4751	depart
33501 Bielefeld		106 4970	SFB343

e-mail: goetze@mathematik.uni-bielefeld.de

The programme committee consists further of Ricardo Fraiman (Montevideo, Uruguay), Richard Gill (Utrecht, Netherlands, ex officio), Takeyuki Hida (Meijo University, Nagoya, Japan), Iain Johnstone (Stanford, USA), Jana Jureckova (Charles University, Prague, Czech Republic), Niels Keiding (Statistical Reseach Unit, Copenhagen, Denmark), Rafail Khasminskii (Wayne State University, USA), Pascal Massart (Université ParisSud, Orsay, France), Pal Revesz (Technical University, Vienna), Richard Smith (Chapel Hill, USA/Cambridge, UK).

### Local organising committee:

Chairman: Georg Pflug (University of Vienna) email A4421DAE@helios.edvz.univie.ac.at

Further members: Imanuel Bonze, Wilfried Grossmann, Walter Gutjahr, Benedikt Pöttscher (all University of Vienna), Manfred Deistler (Technical University of Vienna), Helmut Strasser (Economical University of Vienna).

### 9. Conferences 1997

ISI'97
51st Biennial Session of the ISI
August 18-27, 1997 (tentatively)
Istanbul (Turkey)

Chairman of the programme committee is N. Keiding (Copenhagen, Denmark). Y. Ogata (Tokyo) will be the Bernoulli Society representative on the ISI programme coordination committee for the Istanbul meeting. That committee will fix the main part of the programme of the Istanbul meeting during the Beijing ISI session. He will chair a BS

committee (as yet to be formed) which will prepare BS proposals to take to the ISI meeting in Beijing.

BS members are welcome to send programme suggestions to

Y. Ogata
Institute of Statistical Mathematics
4-6-7 Minami-Azabu, Minato-ku
Tokyo 106
Japan
email ogata@sunyo.ism.ac.jp

### 10. A Short Lesson in History: The Bernoulli Family

Source: Historisch-biographisches Lexikon der Schweiz (by recommendation of the Allgemeine Geschichtsforschende Gesellschaft der Schweiz), ed. H. Türler et al., 7 vols. (Neuchâtel, 1921-1934), Vol.2 (1924). All Bernoullis active and successful in mathematics and/or any other area of knowledge are given an entry, chronologically listed up to 1922. Of course, the Bernoulli family is thriving to this day; we can name, e.g. one member carrying the famous name Daniel Bernoulli, currently Professor of Geology at ETH Zurich.

Readers looking for more professional information on specific achievements of this famous Swiss family are referred to the **Dictionary of Scientific Biography**, ed. C. C. Gillespie, Vol.2, published by Charles Scribner's Sons, New York 1970.

For kind assistance with the English version of the Swiss lexicon text (clearly a proud roll-call of outstanding citizens) I am very much indebted to M.G. Soland (ETH Zurich).

BERNOULLI. Originally from Antwerp, the family became citizens of Basle in 1622.

Coat of arms: In silver, a tri-partite green branch, each having 7 (sometimes 9) leaves.

The progenitor was Jakob (d.1583), who in 1570 had fled from Antwerp to Frankfurt/Main, thus escaping Count Alba's persecution of heretics. Jakob Bernoulli, a wholesale grocer and tradesman, had 17 children. One line of his descendants stayed in Frankfurt, where it is still flourishing; others settled in Hamburg, Cologne, Breslau and Basle.

- 1. **Jakob** (1598-1634) Grandson of progenitor Jakob, druggist and grocer, was made citizen of Basle in 1622.
- 2. Niklaus (1623-1708) Son of 1. Elected member on the board of the Saffron's Guild; representing the guild in the city's Great Council [legislative] in 1668.
- 3. Niklaus (1662-1716) Son of 2., painter, was elected into the Small Council [executive] in 1705.

As for the family's fame for its outstanding impact on science, esp. mathematics, this started with

4. Jakob <sup>1</sup> (1654-1705) Brother of 3. Professor of Mathematics at Basle University. After graduating in theology in 1676, he travelled widely across Switzerland, France, the Netherlands and England, where he made contact with the most prominent mathematicians. On his return to Basle in 1682 he inaugurated the lectures on experimental physics, and in 1687 was appointed to the Chair of Mathematics. Inspired by, yet independently from, Leib-

niz, he explored the infinitesimal calculus. He published studies on the logarithmic spiral, the loxodromes, infinite fractions, infinite series (on which occasion the so-called Bernoulli numbers were discovered), etc., as well as studies on the isoperimetric problem - hereby laying the foundation for variational calculus. In 1701 he became a member of the Berlin Academy.

- 5. Johann (1667-1748) Younger brother of Also Professor of Mathematics and even more renowned for his contributions. He had studied medicine as well, qualifying in this discipline at Basle University in 1694. The following year he was appointed Professor of Mathematics and Physics at Groningen. In 1705 he succeeded his brother to the chair at Basle University. Listing all his achievements in mathematics would ask for a comprehensive survey of the complete higher analysis; suffice it to name his evaluation of such quotients whose numerator and nominator both tend to zero, using differential calculus, and the invention of calculus for exponential functions, most integration methods (together with Leibniz), etc. He was elected a corresponding member of the Academies of Paris in 1699, Berlin (1701), London (1712), Bologna (1724) and Petersburg (1725). Among his students were his own sons Niklaus, Daniel and Johann - and also Leonhard Euler.
- 6. Niklaus <sup>2</sup> (1687-1759) Son of 3. Mathematician, lawyer and philosopher. His favorite field of research was the theory of infinite series. From 1716 to 1719 he was Professor of Mathematics at Padua

<sup>&</sup>lt;sup>1</sup>Author of the "ARS CONJECTANDI"

<sup>&</sup>lt;sup>2</sup>Editor of the "ARS CONJECTANDI". He also applied the Law of Large Numbers to lifelength data.

BERNOULLI. Aus Antwerpen stammendes, 1622

in Basel eingebürgertes Geschlecht. Wappen: In Silber ein dreigeteilter grüner Zweig mit je 7 (oder auch 9) Blättern. Stammvater ist der 1570 aus Antwerpen nach Frankfurt a. M. vor den Ketzerverfolgungen Albas geflüchtete «Materialist» und Grosskaufmann Jakob, † 1583, der 17 Kinder hinterliess. Eine Linie blieb in Frank-

furt, wo sie noch heute blüht, andere liessen sich in Hamburg, Köln, Breslau und Basel nieder. — 1. JAKOB, 1598-1634, Materialist und Spezierer, Enkel des Stammyaters Jakob,

rialist und Spezierer, Enkel des Stammvaters Jakob, bürgerte sich 1622 in Basel ein. Dessen Sohn — 2. Ni-KLAUS, 1623-1708, wird als Sechser zu Safran 1668 Mitglied des Gr. Rates, und — 3. Niklaus, der Maler, 1662-1716, Sohn von Nr. 2, 1705 des Kl. Rates.

Den Ruhm der Familie, der in ihrer überragenden wissenschaftlichen Bedeutung, speziell auf mathematischem Gebiet liegt, begründete — 4. Jakob, \* 1654, Bruder von Nr. 3, Professor der Mathematik an der Universität Basel. Studierte erst Theologie u. begab sich 1676 sität Basel. Studierte erst Theologie u. begab sich 1676 nach abgelegtem Examen auf Reisen in der Schweiz u. Frankreich, später nach den Niederlanden und England, wo er mit den bedeutendsten Mathematikern in Verkehr trat. Nach seiner Rückkehr 1682 eröffnete er Vorlesungen über Experimentalphysik in Basel, wo ihm 1687 die mathematische Professur übertragen wurde. Von Leibniz angeregt, aber unabhängig von ihm, ergründete er die Infinitesimalrechnung. Veröffentlichte Reseaungen über die legerithrische Spirale die lichte Forschungen über die logarithmische Spirale, die Loxodrome, die Kettenlinie, unendliche Reihen (bei Loxodrome, die Kettenlinie, unendliche Reihen (bei welcher Gelegenheit die sog. Bernoullischen Zahlen entdeckt wurden), die Segelkurven usw., sowie über das isoperimetrische Problem, womit er die Grundlage zur Variationsrechnung legte. Seit 1701 Mitglied der Berliner Akademie. † 16. viii. 1705. Noch bedeutender war — 5. Johann, \* 1667, jüngerer Bruder von Nr. 4, ebenfalls Professor der Mathematik. Neben dieser studierte er auch Medizin, worin er 1694 in Basel doktorierte. 1695 wurde er Professor der Mathematik und Physik in Gröningen, 1705 als Nachfolger seines Bruders in Basel. Um seine Verdienstein der Mathematik zu schildern, müsste man einen Abriss der gesamten höheren Analysis geben; von Abriss der gesamten höheren Analysis geben; von ihm sind u. a. die Auswertung solcher Brüche, deren Zähler und Nenner in Null übergeht, mittelst Differentiation; die Erfindung der Differentialrech-nung der Rechnung mit Exponentialgrössen, der meisten Integrationsmethoden (mit Leibniz zusammen)
usw. Er war auswärtiges



Johann Bernoulli 1743 Nach einem Porträt von J.Ruber, gestochen von G. F. Schmidt.

Mitglied der Pariser Akademie seit 1699, der zu Berlin seit 1701, zu London seit 1712, zu Bologna seit 1724 und zu Peters-burg seit 1725. Zu seinen Schülern gehörte ausser seinen Söhnen Niklaus, Daniel und Johann auch Leonhard Euler. † in Ba-sel am 1. I. 1748. Unter Jakobs Söhnen zeichnete \* 1687, Sohn von Nr. 3, Mathematiker, Jurist und Philosoph. Er widmete sich mit Vorliebe der Erforschung der unendlichen Reihen. 1716-1719 war er Professor der Mathematik an der Universität Padua: 1722 erhielt er in Basel die

Professur der Logik, 1731 die des Codex und des Lehensrechts. Mitglied der Akademien von Berlin, London und Bologna. † 29. xi. 1759. Unter Johanns Söhnen (Nr. 7-9) sind zu nennen: — 7. Niklaus II., Mathematiker und Jurist, \* 1695. Professor der Jurisprudenz in Bern 1723, kam 1725 mit seinem Bruder Daniel an die neu gegründete Akademie St. Petersburg, wo er schon am 26. vii. 1726 starb. Seine mathematischen Leistungen



Daniel Bernoulli. Nach einem

betreffen vor allem das Gebiet der Integration von Differentialgleichun-gen. — 8. DANIEL, \* 27. I. 1700 in Gröningen, Mathematiker, Physiker, Me-diziner und Botaniker, erlernte von 11 Jahren an die Mathematik von seinem Vater und Bruder Niklaus und studierte später Medizin in Basel, Heidelberg und Venedig. 1725 übersiedelte er mit Ni-klaus nach St. Petersburg. Von 1725-1757 war er 10 Mal Preisträger für mathematische Arbeiten der Akademie Paris, einmal (1734) mit seinem Vater Daniel Bernoulli. Nach einem Porträt von J. Rudolph Huber, gestochen von Jakob Haid. und einmal mit seinem jüngeren Bruder Johann zusammen. 1733 wurde er Professor der Anatomie und Botanik an der Uni-

er Professor der Anatomie und Botanik an der Universität Basel. Seine wissenschaftlichen Leistungen umfassen die verschiedensten Gebiete der Mathematik, Physik, Astronomie usw. Mitglied der Akademien von Petersburg, Berlin, London und Paris, † 17. III. 1782. — 9. Johann II., \* 18. v. 1710, Mathematiker und Jurist. Nachdem er 1732 in der Juristunden delten er und Parisk für der den delten der delten delten der delten der delten der delten der delten delten delten der delten delt thematiker und Jurist. Nachdem er 1732 in der Jurisprudenz doktoriert hatte, reiste er zu Daniel nach St. Petersburg, kehrte aber mit diesem nach Basel zurück, wo er 1743 eine Professur der Beredsamkeit erhielt, die er 1748 an eine Professur der Mathematik tauschte. 4 seiner Arbeiten wurden von der Pariser Akademie preisgekrönt. † 18. vII. 1790. — 10. Johann III., ältester Sohn von Nr. 9, \* 4. XI. 1744, Astronom und Mathematiker, wurde 1763 an die Akademie Berlin berufen. Seit 1767 leitete er die Sternwarte Berlin. Mitglied der Akademien von Paris, Petersburg, Rom, London und Stockholm. Starb als Direktor der Akademie Berlin 13. vII. 1807. — 11. Daniel, 2. Sohn von London und Stockholm. Starb als Direktor der Akademie Berlin 13. vII. 1807. — 11. DANIEL, 2. Sohn von Nr. 9, \* 1751, Dr. med., Professor der Eloquenz, dann der Physik und der Medizin, endlich Dompropsteischaffner in Basel, † 1834. — 12. JAKOB II., jüngster Sohn von Nr. 9, \* 17. x. 1759, Mathematiker und Physiker, kam als kaiserl. Gesandtschaftssekretär 1779 nach Venedig und 1786 an die Akademie St. Petersburg. Seine Forschungen betreffen das Gebiet der theoretischen Mechanik. † 3. vII. 1789. — Die Nachkommenschaft eines 4. Bruders, Emanuel, blüht heute noch in Venedig und St. Petersburg. Unter den Nachkommenschaft eines 4. Bruders, Emanuel, blüht heute noch in Venedig und St. Petersburg. Unter den Nachkommen eines fünften, des Apothekers Niklaus, seien genannt: — 13. Leonhand, 1791-1871, Stadtrat, und — 14. Niklaus, 1793-1876. Kriminalgerichtspräsident. — 15. August, 1839-1921, Sohn von Nr. 13, Dr. phil., namhafter Historiker. — 16. August, Sohn von Nr. 15, \* 1879, Professor für physikalische Chemie in Basel. — 17. Hans, Enkel von Nr. 14, \* 1876, Architekt und Professor am Eidgen. Polytechnikum in Zürich. nikum in Zürich.

nikum in Zürich.

Unter den Nachkommen von Daniel (Nr. 11) sind wichtig: — 18. Christoph, \* 15. v. 1782, Naturforscher und Technologe, Gründer u. Leiter des philotechnischen Instituts, Professor der Naturgeschichte in Basel, † 6. II. 1863. — 19. Carl Christoph, Enkel von Nr. 18, \* 1861, Dr. phil., Oberbibliothekar, des Gr. Rats. — 20. Carl Albrecht, \* 1868, Lic. theol., Romanschriftsteller und Dramatiker. (Verzeichnis seiner Schriften in SZGL). — 21. Johannes, 1864-1920, Dr. phil., Direktor der Schweiz. Landesbibliothek in Bern 1895-1908. — 22. Eduard, Bruder von Nr. 21, \* 1867, Dr. phil., Professor für Musikgeschichte in Zürich. — 23. HIERONYMUS, Grossneffe von Nr. 4 und 5, 1745-1829, war Naturforscher, ebenso — 24. KARL GUSTAV, 1834-1878. — 25. Johann Jakob, Dr. phil., 1831-1920, war Professor der Archäologie in Basel. — LL. — Athenae Rauricae 1780. — Basler Bürgerbuch. — Merian: Die Mathematiker B. — ADB. — Schweiz. Geschlechterbuch. — Verhandlungen der Nat. Ges. zu Basel XXXII,

p. 230 ff. — BJ.

University; in 1722 Basle University appointed him as Professor of Logic, in 1731 as Professor of Codified and Feudal Law. Member of the Academies of Berlin, London and Bologna.

- 7. Niklaus II (1695-1726) Son of Johann (5.). Mathematician and lawyer. Professor of Law at Berne University in 1723. In 1725 he left (with his brother Daniel) for Petersburg's newly founded Academy, where an early death reached him on 26 July 1726. His contributions to mathematics lie above all in the field of integration and differential calculus.
- Daniel (1700-1782) Son of Johann (5.). Mathematician, physicist, medical doctor and botanist, had started mathematics with his father and his brother Niklaus from the age of 11, and later studied medicine in Basle, Heidelberg and Venice. In 1725 he left for Petersburg, with his brother Niklaus. Between 1725 and 1757 he was ten times awarded prizes for his mathematical work by the Paris Academy - on one occasion jointly with his father (1734); on another with his youngest brother Johann. In 1733 he was made Professor of Anatomy and Botany at Basle University. His scientific achievements reach out into the most diverse areas of mathematics, physics, astronomy, etc. Member of the Academies of Petersburg, Berlin, London and Paris.
- 9. Johann II (1720-1790) Son of Johann (5.). Mathematician and lawyer. After obtaining his doctorate in law, 1732, he joined his older brother Daniel in Petersburg, but returned with him to Basle the following year. In 1743 he was given the Chair of Rhetoric at Basle University, which he exchanged for a Chair of Mathematics in 1748. Four of his studies were awarded prizes by the Paris Academy.
- 10. Johann III (1744-1807) Eldest son of Johann II (9.). Astronomer and mathematician. Appointed by the Berlin Academy in 1763, he became Director of the Berlin Observatory in 1767. Member of the Academies of Paris, Petersburg, Rome, London and Stockholm; Director of the Berlin Academy.
- 11. **Daniel** (1751-1834) Second son of Johann II (9.). Doctor of Medicine, Professor of Rhetoric, followed by professorships in physics and medicine;

finally, also major-domo of the Dean of Basle Cathedral.

12. Jakob II (1759-1789) Youngest son of Johann II (9.). Mathematician and physicist, he served as secretary to the imperial ambassador in Venice, from 1779. In 1786 he joined the Petersburg Academy. His research touches on problems of theoretical mechanics.

The descendants of a fourth son of Johann II, Emanuel, are still flourishing in Venice and Petersburg.

From among the descendants of a fifth son, the pharmacist Niklaus, mention should be made of:

- 13. **Leonhard** (1791-1871) Councillor of the city of Basle.
- 14. Niklaus (1793-1876) President of the Criminal Court.
- 15. August (1839-1921) Son of Leonhard (13.), Ph.D., renowned historian.
- 16. August (1879-) Son of August (15.), Professor of Physical Chemistry at Basle University.
- 17. Hans (1876-) Grandson of Niklaus (14.), architect and Professor at ETH Zurich.

From among the descendants of Daniel (11.) quite a few have been important figures:

- 18. Christoph (1782-1863) Biologist and technologist; founder and director of the Philotechnic Institute; Professor of Natural History at Basle University.
- 19. Carl Christoph (1861-) Grandson of Christoph (18.), Ph.D., chief librarian of the Basle Great Council.
- 20. Carl Albrecht (1863-) Lic.theol., novelist and dramatist. His works are listed in the SZGL=Schweizerisches Zeitgenossen Lexikon (Swiss Lexicon of Contemporaries).
- 21. **Johannes** (1864-1920) Ph.D., Director of the Swiss National Library in Berne, 1895-1908.
- 22. Eduard (1867-) Brother of Johannes (21.), Professor of History of Music at Zurich University.
- 23. **Hieronymus** (1745-1829) Great-nephew of 4. and 5. Biologist.
  - 24. Karl Gustav (1834-1878) Biologist.
- 25. **Johann Jakob** (1831-1920) Ph.D., Professor of Archaeology at Basle University.

### 11. The Officers of the Bernoulli Society

### Officers 1993-1995

President: O.E. Barndorff-Nielsen, University of Aarhus, Denmark. atsoebn@mi.aau.dk
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### 12. Summary of Forthcoming BS Events

### • 3rd World Congress 1994

Chapel Hill (North Carolina, USA), June 20-25, 1994

Place: University of North Carolina at Chapel Hill.

For information contact: IMS/Bernoulli Society Meeting; Conferences and Institutes; UNC-CH Division of Continuing Education; P.O.Box 3392, Chapel Hill, NC 27515-3392, USA. Phone: 1-800-845-8640, FAX: 1-919-962-2061, email: tpc.ce@mhs.unc.edu.

#### • SPA'95

23rd International Conference on Stochastic Processes and their Applications Singapore, June 19-23, 1995

Place: National University of Singapore.

For information contact: L.H.Y Chen or J.H. Lou, Department of Mathematics, National University of Singapore, Lower Kent Ridge Road, Singapore 0511, Republic of Singapore. FAX: +65 779 5452, email: matspa95@leonis.nus.sg.

#### • EMS'95

21st European Meeting of Statisticians, Aarhus (Denmark), August 21-25, 1995

Place: University of Aarhus.

For information contact: EMS'95, Institute of Mathematics, University of Aarhus, Ny Munkegade, DK-8000 Aarhus C, Denmark. Phone(s): +45 8942 3188, +45 8942 3532, FAX: +45 8613 1769, email: ems95@mi.aau.dk.

#### ISI'95

50th Biennial Session of the ISI

August 21-29, 1995

Beijing (The People's Republic of China)

BS representative: P.J. Diggle, Department of Mathematics, University of Lancaster, Lancaster LA1 4YL, UK. email: maa026@cent1.lancs.ac.uk

Chairman of the Programme Committee: J.L.Bodin, INSEE, 18 Boulevard Adolphe Pinard, 75675 Paris Cedex 14, France. Phone: +33-1-41175292, FAX: +33-1-41176644.

Local organizer: Feng Nailin (Director), Secretariat of the ISI Session, c/o State Statistical Bureau, 38 Yuetan Nanjie, Beijing 100826, The People's Republic of China. Phone(s): +86 1 381 0051, +86 1 381 0965, FAX: +86 1 381 0035, email: wangjl@bepc2@slac.stanford.edu.

### • CLAPEM VI

Valparaiso (Chile), November 20-24, 1995

### • 4th World Congress

Vienna (Austria), August 26-31, 1996

Place: University of Vienna.

Chairman of the Programme Committee: Friedrich Götze, Fakultät für Mathematik, Universität Bielefeld, 33501 Bielefeld, Germany. Phone: +49 521 106 4797, FAX: +49 521 106 4743, email: goetze@mathematik.uni-bielefeld.de.

#### ISI'97

51st Biennial Session of the ISI

Istanbul (Turkey), August 18-27, 1997

Place: University of Istanbul.

BS representative: Y. Ogata, Institute of Statistical Mathematics, 4-6-7 Minami-Azabu, Minato-ku, Tokyo 106, Japan. email: ogata@sunyo.ism.ac.jp.

# The Bernoulli Society for Mathematical Statistics and Probability

### Membership in the Bernoulli Society

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Members also profit from low registration fees for conferences organized or sponsored by the Bernoulli Society. As of 1995 there will be a 20% discount on books published by Chapman & Hall, if ordered directly.

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The extraordinary membership entrance dues are: US\$ 17.00, UK£11.00, SF 23.00, FF 93.00, DM 27.00, DFL 30.00.

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