DEPARTMENT OF STATISTICS
FLORIDA STATE UNIVERSITY

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Statistics Turns 40

For our 40th Anniversary this year, we invited our alumni (one came all the way from Iceland) , friends, and former members of the department to help us celebrate our past, present, and future. The celebration which was held on April 21st and 22nd was highlighted by a series of talks from our former students and was complemented by several social gatherings. The program, abstracts, and photos from the celebration can be found at http://stat.fsu.edu/40th/. The event was a great success and the memories it sparked were priceless. As a special request, I asked one of our former faculty, Shriniwas Katti, to share his thoughts on the occasion:

Dear Pam McGhee:

It was nice of you to ask for our thoughts on this occasion. If you knew me, you would know that such a request never goes unanswered.

My wife who is currently holding a job in Irving Texas and I, with a job in White Plains, NY came to see what is happening. We were there before Elian Gonzalez, even before the Equal Accommodations Act of 1964. I joined on January 1, 1960 and my bride came in July with our getting married at the home of Dr. Ralph Bradley, our esteemed founder on

(Continued on page 2)

Greetings from the Chairman

Myles Hollander

In this first year of the new millennium, the Statistics Department has been very active and I will take this opportunity to mention some of our recent, current, and future activities.

The Laboratory of Computational Vision (LCV), under the direction of Anuj Srivastava, is making progress towards its goal of developing automated recognition systems. Recently acquired 3D scanners have enabled the researchers to accurately capture three-dimensional shapes and textures of objects such as human faces. This knowledge is being utilized to derive algorithms for face recognition. The university has been generous with funding to support the LCV and the recent acquisition of an infrared camera has opened a new research area involving nighttime vision systems. Please visit the website (lcv.stat.fsu.edu) for more information.

Our department continues to be active with external grants. Jayaram Sethuraman and Anuj Srivastava have

(Continued on page 11)

Highlights

Dr. Florentina Bunea Joins the Department

Dr. Florentina Bunea

The department is pleased to welcome Florentina Bunea as the newest member of our faculty. Bunea who joined us in August, holds a Ph.D. in Statistics from the University of Washington (2000) and M.S. and B.S. degrees in Mathematics from the University of Bucharest in Romania (1991, 1989). Her primary research interests are in semiparametric models; empirical processes; model selection and its connection to minimax adaptive estimation; and exact MCMC tests for three and higher dimensional contingency tables. Other areas of interest for Bunea include graphical models and their applications, especially to the study of biological systems. Her Ph.D. dissertation work on "Semiparametric estimation in conjunction with variable selecting in linear models" was funded by a grant from the National Research Center for Statistics and the Environment.

Before coming to the United States, Bunea served as an Assistant Professor at the Technical University of Bucharest from 1990-1995. At the University of Washington, she was considered to be one of the mathematically strongest students in the program and a relentless researcher. With her talent for statistical theory, her potential to make significant contributions in applied statistics, and her proven skills as a lecturer and researcher, we are glad to have her with us.

Pramila and S. Katti with Pi-Erh Lin

(Continued from page 1)

September 24. There were a number of good black and white photographs and a few attempted color photographs at the ceremony. We did not have any videos. Our TV had only one channel. In your eyes, we must have suffered much!

We saw the colleagues of yester-years growing old gracefully, treating each other as ladies and gentle men. They have big homes - a far cry from the apartments in White Plains and Irving. But a little bit of the history seems to be getting lost. If you remember it, you will be very proud that you have gotten so far. It has, indeed, been a very long way. Without history, you will not have a perspective to judge your accomplishments.

The Department started in Fall 1959, with Dr. Bradley and two faculty, inherited from the Mathematics Department from which this department separated out. Dr. Bradley made the correct inference that the future of the Department and the nation lies in its research. The two mathematicians left - I do not have any recall of them. I joined in January - 23 years old, with a Ph.D. under teachers such as Professors H. O. Hartley, Oscar Kempthorne, George Snedecor, —, and full of pep. I had six papers 'published, in print or having been accepted but subject to revision'. We attracted two students, a man and a woman. The woman got pregnant - not our fault. We worried sick of losing fifty percent of our graduate student body. The first brave decision was: NOT set up a set of requirements for admission, qualifying, comprehensives and other trappings which were common in Berkeley, Stanford etc. We wanted the pride of the individual faculty to decide on all of the subtle issues. I do not recall having voted against anmember of my family.

Then came the appointment of Dr. Frank Wilcoxon, the non-parametrician. With his arrival, our Department getting approval for the MA and Ph.D. program looked so obvious that I do not recall sitting on pins and needles for the Board of Regents to rule on it. I was always very confident that we could accomplish big things. Our job was to get on to doing it. If it did not come our way, I would feel sorry for the slobs who could not see through the woods!

Then came Dr. Richard G. Cornell who got a bio-statistics section going - when bio-statistics was not a common word. He got many grants.

At the celebration

We got visitors like Professor Neyman of Berkeley and Dr. Blackwell, the noted operations research man. Then came I. Richard Savage, a Bayesian at a time when it was not quite a word of honor. The computer still had only a 2K memory, yes, 2K, I did not spell it wrong! There were not many ways to do any numerical computing. Talented views were given out as personal beliefs. I have tested out many of them with the modern computing machinery. They were, indeed, a case of the talented brain guessing what could not be depicted in tables and graphs.

In making the appointments, the only consideration was "Is this person talented?" If the person is talented, we want him/her. It is not important that he/she fit in well with us. We are not that good to start with. If he/she is good, he/she will contribute in some way. It is just as good. We had enough confidence that world is big enough and that America can use all of the talent that we can gather.

You can put the rest of the stories together by looking up the files that are available to you. When you find something that you cannot explain, look deeper. In this world, nothing happens by itself. Some one, whom you forgot, did it! Wrong. The fruits of the labor of the past people are ripening. The current group is lucky to be in the right place when the fruits are dangling from the branches.

Can you believe that when I got a job in 1960, my salary was $700 per month - and I was one of the A-graders? It was big money to me since I just had finished my half time teaching assistantship where I was getting $160 per month, an increase from $125 per month when I came to this country in 1956! Salaries made by Sir Ronald Fisher, Father of Statistics, Jersey Neyman of the Neyman Pearson Lemma, and my relative Sukhatme of the UN were pittance in comparison with today's salaries.

It is a matter of much pride to me that we created a prosperous America for the next generation. . Now, it is your turn to work hard so that the next generation will be richer than you and because of you. While giving you this nice advice based on work ethics and all, Pramila and I are going to get back to working in the new economy to enjoy our life. How do we justify this blatant flagrant show off? Because my wife and I are FINKs which stands for Four Incomes No Kids coming home to pilfer.

We wish you good luck and God speed. May the winds be on your back at all times.

Dr. Shriniwas Katti, also Dr. Pramila Katti.

Some of the 40th Anniversary Attendees and their Current Affiliations

Dick Scheaffer (Ph.D. 1969), Univ. Florida
Michael Schell (Ph.D. 1984), Univ. of North Carolina
Harry Joe (Ph.D. 1982), Univ. of British Columbia
Constance L. Wood (Ph.D. 1975), Univ. of Kentucky
Emad El-Neweihi (Ph.D. 1973), Univ. of Illinois, Chicago
Dacheng Liu, Ph.D. candidate, FSU Dept of Statistics
Hulin Wu (Ph.D. 1994), Frontier Science & Tech. Res. Found., Harvard
Shanti Gomatam (Ph.D. 1995) Univ. of South Florida
B. Narasimhan (Ph.D. 1991), Stanford Univ.
Yichuan Zhao, Ph.D. candidate, FSU Dept of Statistics
Han Yu, Ph.D. candidate, FSU Dept of Statistics
Wenji Pu, Ph.D. candidate, FSU Dept of Statistics
Evgenia Rubinshtein, Ph.D. candidate, FSU Dept of Statistics
Panagiota Kitsanta, Ph.D. candidate, FSU Dept of Statistics
Curt Hesher, Assistant, Lab, for Comp.Vision and M.S. student in Comp. Sci
Marc Loizeaux, Ph.D. candidate, FSU Dept of Statistics

Leslie Van Alstine (M.S. 1982), Best Foods
Ian McKeague, FSU Dept of Statistics
Brett Presnell (Ph.D. 1989), Univ. of Florida
Karen Kinard (M.S. 1989), Tallahassee Comm. College
Fred Leysieffer, FSU Dept of Statistics and Associate VP for Academic Affairs
Gang Li (Ph.D. 1992), Department of Biostatistics, UCLA
Jayaram Sethuraman, FSU Dept of Statistics
Seo-Eun Choi, Ph.D. candidate, FSU Dept of Statistics
Robert Taylor (Ph.D. 1971), Univ. of Georgia
Robert Sielken, Jr. (Ph.D. 1971), JSC Sielken
Jim Norris (Ph.D. 1990), Wake Forest Univ.
Jim Lynch (Ph.D. 1974), Univ. of South Carolina
Ram Tiwari (Ph.D. 1980), UNC, Charlotte
Vimala Tiwari
Doug Zahn, FSU Dept of Statistics
Larry Crow (Ph.D. 1971), Illinois Inst. of Technology Research Inst.
Benedikt Johanneson (Ph.D. 1981), Talnakonnun, Iceland
Dennis Boos (Ph.D. 1977), North Carolina State Univ.
Ron Randles (Ph.D. 1969), Univ. of Florida
Yanqing Sun (Ph.D. 1993), UNC, Charlotte
Ibrahim Ahmad (Ph.D.1975), Univ. of Central Florida
Mei-Jie Zhang (Ph.D. 1991), Medical College of Wisconsin

Ron Hobbs (M.S. 1967), Twin Action Group
Thomas Jagger (Ph.D. 2000) MathSoft, Seattle, WA
Kaisheng Song, FSU Dept of Statistics
Frank M. Guess (Ph.D. 1984), Univ. of Tennessee
Margo Guess
N. Rao Chaganty (Ph.D.1982), Old Dominion Univ.
Pi-Erh Lin, FSU Dept of Statistics

40th Anniversary Group Photo

William Grams (Ph.D. 1972), Embry-Riddle Univ.
Xufeng Niu, FSU Dept of Statistics
Ruth Ann Killion (M.S. 1973), U.S. Census Bureau
Don Foss, Dean, College of Arts and Sciences, FSU
Greg Campbell (Ph.D. 1976), Division of Biostatistics, U.S. FDA
Lei Li, FSU Dept of Statistics
Sandy Hall, Ph.D. candidate, FSU Dept of Statistics
Matthew Hall, (Ph.D. 2000, Math.) M.S. candidate, FSU Dept of Statistics
Dai Ho Uhm, Ph.D. candidate, FSU Dept of Statistics
James Stricherz, Computer Specialist, FSU Dept of Statistics
Virginia Grice, Office Manager, FSU Dept of Statistics
Shaojun Zhang, Ph.D. candidate, FSU Dept of Statistics
Fred Huffer, FSU Dept of Statistics
Abdellahi Meneya, Ph.D. candidate, FSU Dept of Statistics
Glen Laird (Ph.D. 2000), Research Triangle Institute, NC
Feiming Chen, Ph.D. candidate, FSU Dept of Statistics
S.K. Katti, Progenics, White Plains, NY
Pramilla Katti, Medical Technologist, Dallas, TX
Bettye Stokes, Departmental Secretary
Annelise Leysieffer
Duane Meeter, FSU Department of Statistics
Marge Meeter (M.S. 1979)
Myles Hollander, Chairman, FSU Dept of Statistics

Alumni News

Timothy J. Vogel (M.S., 1983). After receiving his M.S. in Applied Statistics, Tim went to New York City to work for the Reliance Consulting Group (December; 1984; a Sol Steinberg company) where he managed all the statistical and mathematical applications inside the consulting practice, which specialized in the fields of manufacturing, distribution, and customer service. He then took a job in Denver, CO (December, 1988) with National Demographics & Lifestyles, Inc. (now part of the RL Polk Company) as analytic product manager, building statistical models on demographic and lifestyle data to generate targeted marketing lists. He was made Director of TLS Product Development (The Lifestyle Selector) in December, 1989.

In December, 1991 Tim helped start-up Abacus Direct in Boulder, CO, a company that merged transactional data from a variety of sources to maintain a "complete" transactional data bank used by contributors of that data to build statistical models for making highly targeted marketing offers. Two years later, Tim left Abacus to go to MCI where he was Sr. Manager, Data Mining. From prospect generation, to fraud detection, to telecom customer retention programs, to international calling, to cellular phone usage, to the likelihood to use the Internet from home, Tim built building scoring models of every ilk. He left MCI/WorldCom in December, 1998 to join Andromedia, Inc. in San Francisco, CA. Now at Macromedia, Inc. (specifically, working in the Macromedia eBusiness Solutions Group), Tim is currently the Data Miner / Likeminds. Our product, Likeminds, is the only truly scalable, real-time recommendation server for e*Commerce and e*Content sites around the world. Likeminds is a computer architecture and real-timeg scheme based on Semantic Transport (word of mouth for want of a better tem; how human beings have passed unshared experience on to one another via human-similarity-based trust constructs for the last 30,000 years or so), he is now tasked with building software that can make recommendations of any kind (items, users, references, search engine terms, help-files, basically any "noun" you can think of using both explicit ratings and implicit clickstream behaviors) in 30 milliseconds or less! Tim feels he has been working on this product (in one form or another) since December, 1983, when he left the FSU Statistics Department's "most excellent" tutelage to make his way in the real-world of statistical applications. And let him be the first to tell you, the world is full of it; "full of" the opportunity clever application of statistically-based decision making, that is!

Curt Miller (B.S. 1995) works for the Bureau of Epidemiology in the Florida Department of Health as a Health Services Facilities Consultant. Curt also owns his own Ecommerce and Internet Business Development and Marketing Firm.

Jason Martin (M.S. 2000) is a statistician with IMS Health.

Kara Morgan Clarke (M.S. 1998) is a consultant at PricewaterhouseCoopers in Springfield, VA.

Hocine Tighiouart (M.S. 1998) is a Research Associate with the Division of Clinical Care Research at the New England Medical Center in Boston, MA.

Michael Longnecker (Ph.D. 1976) co-authored "An Introduction to Statistical Methods and Data Analysis, Fifth Edition" with R. Lyman Ott. The new textbook has a publication date of December 2000.

Tom Jagger (Ph.D. 2000) is working for MathSoft in Seattle, WA. "Work is great here in Seattle. We use a lot of our statistical knowledge in this department doing consulting work. My current assignment is working on a Garch wavelets model for pairs trading, after merger announcements, for a company that is interested in developing trading rules for its automated trading system (Day trading). We use tools that are basic to each field, including plots of the data, auto correlation functions and so forth. Much of the time we are creating Splus and even C code. The work is fast paced but very interesting."

Margo & Frank Guess with Marg

Last October, 1999 **Dr. Frank Guess** (Ph.D. 1984), now Professor and Ph.D. Director at the University of Tennessee, Knoxville, gave a talk and refereed paper at an elite conference of 72 worldwide participants on information quality at MIT's Sloan School of Management. This was based on his Summer, 1999 grant work and visits with Dr. Greg Dobbins of HealthMagic, which were by matched funding from Dr. Dobbins, competitive grant awards from College of Business Administration's Scholarly Research Grant Program and, also, the University of Tennessee Professional Development Award. In their Conference paper, Dobbins and Guess (1999) discuss early employment of an information quality strategy in HealthMagic, incorporated with the information technology (IT) product HealthCompass. HealthMagic has positioned itself as a leading web-based technology company. HealthMagic has "a multi-year agreement with drkoop.com, the award-winning [ranked number 1 in usage] Internet healthcare portal led by Dr. C. Everett Koop, former U.S. Surgeon General. As part of ement drkoop.com will distribute the HealthCompass OnSite." Other clients of HealthMagic include, for example, hospitals, Walt Disney World's resident villages, etc. HealthCompass, is a web-based IT software product of health records that enables consumers to create a portable and private repository of their entire lifelong health history over the Internet.

Dr. Guess has accepted an invitation to be an Associate Editor of the new International Journal of Reliability and Applications (first issue was in Summer 2000. Dr. Guess has also won another competitive grant award from College of Business Administration's Scholarly Research Grant Program for this Summer, 2000. As Ph.D. Director at the University of

Tennessee, he is very interested in excellent graduate students for their Master's and Ph.D. programs. Please visit UT's Statistics Department Web Page for much more information on their programs: http://stat.bus.utk.edu/ or contact him directly at fguess@utk.edu after visiting the web site. He expresses his deep gratefulness for FSU faculty/students and traditions of excellence, scholarship and continued growth.

Lawrence Barker (1979) is the Associate Director for Sciences in the Data Management Division of the National Immunization Program in the Centers for Disease Control and Prevention in Atlanta, GA. "Statisticians in the National Immunization program work in a multi-disciplinary environment, studying issues of vaccine efficacy, safety, and social-sciences issues concerning people's attitudes toward vaccination."

Larry Crow

Larry Crow (M.S. 1967, Ph.D. 1971) was honored by FSU as one of the 3 Grads Made Good selected for recognition at this year's homecoming ceremonies. Crow is credited as having created the foundation research in reliability growth models and methodology, the basis for U.S. defense standards, and the standards in other nations". Crow recently retired from General Dynamics Advanced Technology Systems where he was Director of Reliability and safety. Crow now serves as the Vice President and Senior science Advisor at IIT research Institute. Crow also participated in our department's Grads Made Good colloquium with **Lanny Larson**. Lanny Larson (Ph.D. 1975) is the Deputy Executive Director for Workforce Development on the State Board of Community Colleges, in Tallahassee, Florida. Larson

e Meeter

Leslie Van Alstine (M.S. 1982) is Manager of the Information Resources & Analysis group and of the Statistical Services group at Bestfoods, one of the largest food companies in the U.S. (which merged with Unilever this year). As manager of the Information Resources and Analysis group Leslie works to identify the information needs of the origination, then implement information services, resources and the infrastructure necessary to address those needs. The primary mission of the Statistical Services group, which Leslie has headed for the past 10 years, is to provide assistance to the researchers in the North American Research and Development division with the design of their experiments, the subsequent analysis of the data generated from those experiments and the interpretation of the results obtained within the context of the project. "As the only statistics group in an international company with over 50,000 employs in over 60 countries – we also get requests from a number of other divisions and foreign affiliates within the company. One of the more challenging aspects of our job is to keep up with developments in the use of statistics both in other parts of the world and across many different disciplines.

When asked to state how he feels his experiences at FSU helped him get to where he is today, Leslie was very expressive (8 paragraphs of his letter were devoted to describing how he has benefited from what he learned here). Some of the aspects of our program that he feels helped him the most were the ability to work on an in-depth study of an interdisciplinary nature (with the Meteorology department), the sound understanding he gained in linear model theory and regression analysis, the teaching experiences he had as a graduate teaching assistant, and the knowledge he gained on the interpersonal aspects of statistical consulting.

Thank You

When we first began our newsletter in 1997 we decided to include a gift form to call attention to the different funds that have been established within the department and to provide a means for any interested parties to make contributions to those funds. In each of the last three years since then we have been pleasantly surprised to receive donations from our alumni. Some of the donations came from recent graduates, some from grads we had not heard from in a while. Each donation, no matter to what fund and no matter in what amount, helps the department better meet its goals. Each donation also reminds us that are alumni are proud of their former department. We know that we are extremely proud of all of our alumni and we would especially like to thank those who so generously gave their support this year.

Contributions to the Statistics General Development Fund

Nora F. Blair, Esquire (M.S. 1975)
William Blot (Ph.D. 1970)
Terry Katz (M.S. 1985)
Bradley Jones (M.S. 1980)
Douglas Ransom (M.S. 1984)

Contributions to the Ralph A. Bradley Award Fund

Frank Guess (Ph.D. 1984)
Ramon Leon (Ph.D. 1979)

Ron and Carolyn Hobbs Endowed Fund in Statistics

Ron (M.S. 1967) and Carolyn Hobbs

Hobbs' Gift Will Establish Endowed Chair

Myles Hollander and Ron Hobbs

Ron (M.S. 1967) **and Carolyn Hobbs** formally completed an agreement with Florida State University to endow the first Eminent Scholar Chair in Statistics. It will be named the Ronald and Carolyn Hobbs Chair. Ron announced his plans for the endowment during his talk at our 40th anniversary celebration. During the next 4 years, Ron and Carolyn will continue to donate $100,000 annually to bring their total to $600,000 by December 31, 2003. With state funds matching to 70% of that amount, we expect to fill the Chair with an Eminent Scholar in Statistics for the start of the 2004-2005 academic year.

Lab for Computational Vision Gets Upgraded

The **Laboratory of Computational Vision** has been strengthened by the purchase of three-dimensional scanners, a high-quality digital video imager, high-speed PCs, and other imaging accessories. This equipment is being used for, among other things, to develop models for automated face recognition. Under an ARO grant, **Anuj Srivastava**, along with a Ph.D. candidate Wenji Pu, are working on the statistical analysis of the differential geometric representations of three-dimensional objects.

New Biostatistics and Statistical Modeling Courses Offered

A new undergraduate level "Statistics for Biology" course, requested by Biological Sciences, will be offered in Fall 2001. Also new for the Fall is STA 5176 Statistical Modeling with Applications to Biology. This new course will be taught by **Lei Li** and is one of the required courses for our new option within the M.S. program that emphasizes Computational Biology.

Karen Kinard Accepts New Position

Karen Kinard

1989 M.S. graduate **Karen Kinard** and an instructor in our department since 1995, left our department this year to take the position of Instructor of Statistics at Tallahassee Community College.

I am enjoying my work as a member of a teaching faculty. The conversations about what can be done to support students who need courses offered in alternative formats are quite instructive. My current work consists of teaching 4 small classes (30-40 students each), of which three are statistics and one is math. Also, I serve on the occasional textbook choice committee, prepare to develop a web course for introductory statistics, perhaps an "AIM" course (Alternative Instructional Method), and later will grow into more active roles in Faculty Senate and various Departmental Committees.

What I miss most about my work at FSU is the opportunity to work with the Graduate Teaching Assistants. With their support, many projects were accomplished that helped the students enrolled in our statistics classes. It was a memorable privilege to work with them as partners working to improve the quality of our courses, our feedback to our students on their work, and our skills as instructors. I hope to carry on the training I was given by Doug Zahn in this area all those years ago as a graduate student and then more recently as an instructor. I'll close with a standing invitation to anyone who wants to do the same to call me. Take care, FSU!

With fond memories, Karen

Bettye Stokes Says Goodbye

Bettye Stokes, our departmental secretary for the last 3 years, left us on November 17 to become the Senior Secretary for the Department of Computer Science. Bettye, originally from Buffalo, NY joined our department on May 21, 1997. She was well liked by faculty, staff, and students for her willing attitude. We will miss her, but wish her much luck and congratulations on her promotion to Senior Secretary.

Awards

Kaisheng Song was honored with a University Teaching Award for excellence in undergraduate teaching for the 1999-2000 academic year. When announcing the award to the department, chairman Hollander noted that "Kaisheng is devoted to his teaching and personifies the characteristics the award recognizes; viz. dedication to students, preparing and presenting careful lectures, inspiring and showing respect for others."

Tom Jagger won the 1999-2000 Ralph A. Bradley Award for the best Ph.D. dissertation in Statistics. Tom also won the 1999-2000 Anna and Yongyuan Li award for the best student colloquium for his talk "Maximum Likelihood Estimation in Hierarchical Models Using Monte Carlo Methods." Both of these awards included cash prizes.

Alexia Athienitis, one of our first -year students received the first Duane Meeter Fellowship for the 2000-2001 academic Year. The fellowship which was established as part of the Ron and Carolyn Hobbs Endowed Fund consists of a $2000 award that complements Alexia's teaching assistantship.

Another first-year student, **Anna Auguste**, won a 2000-2001 College Teaching Fellowship which consists of a $6,300 award.

Fain Folsom won the award for the Best First Year Student in Applied Statistics for 1999-2000.

Gang Ye and **Han Yu** tied for the Best First Year Student award in Theoretical Statistics.

Kaisheng Song won a Faculty Research Grant awarded by the Florida State University Committee on Faculty Research Support (COFRS), Summer 2000.

Max Linn won a Ph.D. History and Philosophy of Education award in Summer 2000. The new Dr. Linn also received his Ph.D. this Summer. His dissertation title was "The Book and the Sword: Education and Politics in Marion England, 1553-1558."

Fred Huffer, Gang Ye, Han Yu, and Xufeng Niu

Recent Grads

Ph.D.

Tom Jagger, MathSoft, Seattle, WA. Space-Time Models for Count Processes with application to Hurricane Activity (X.-F. Niu, 2000)

Glen Laird, Research Triangle Institute, Atlanta, GA. Nonparametric Inference for the Proportionality Function in the Randomly Censored Model (M. Hollander and K. Song, 2000)

Dagang Wang, Southern Company Energy Marketing, GA. Nonparametric Dynamic Regression Models with Applications to Financial Data Analysis (X.-F. Niu, 1999)

M.S.

Feiming Chen. FSU Statistics Ph.D. program (2000).

Hamy Temkit. Biostatistics Division, IUPUI (2000).

Jason Martin. IMS Health, Delaware (2000)

Michiko Ishiyama. Infometrics, Dunwoody, GA (1999). Michiko also received a Ph.D. in music.

NOMINATE YOUR FAVORITE TEACHER OR ADVISOR

The Florida State University Teaching and Advising Awards Committee is seeking nominations for awards recognizing faculty for excellence in teaching and advising. Each award carries an honorarium of $2,000. If you would like to honor a professor whom you consider to be an excellent teacher or advisor, one who challenged you, taught you a great deal, or helped you with academic or career decisions, please send a letter of nomination stating the reasons you feel this professor was an outstanding teacher or advisor to the University Teaching and Advising Committee, 212 Westcott Building, Tallahassee, FL 32306-1310. These awards are announced during the Spring term, therefore, your nomination should be received before January 17, 2001. Nominations can be made by past and present students.

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Department of Statistics
Florida State University
Tallahassee, FL 32306-4330
http://stat.fsu.edu info@stat.fsu.edu
Editor: Pam McGhee

Faculty

Grants

Myles Hollander is continuing his research on "Models and Analysis of Recurrent Data with Intervention" under an NIH grant.

Lei Li is currently on half-time leave at the University of California, Berkeley, where he is conducting research for his NSF grant "Estimating Parameters in Spike-Convolution Models and Mixture Models".

Ian McKeague is working on the NSF Statistics and Probability Program Grant "Efficient condensation of spatial/temporal information" (1999-2002). **McKeague** is also working on his NSA grant "Bayesian Signature Recognition."

Xufeng Niu is currently working on three grants:

1). "Statistical Procedures for Listing and Delisting Impaired Waters Based on Threshold Exceedances" with **Pi-Erh Lin** and **Duane Meeter** (June 1999 — June 2001). The Clean Water Act of the United States Environmental Protection Agency (USEPA) requires each state to conduct water quality survey to determine whether or not its waterbodies are healthy and of sufficient quality to meet their designated uses. The USEPA collects and utilizes this information to prepare a biennial report, known as the National Water Quality Inventory, for the Congress of the United States.

Section 303(d) of the Clean Water Act asks states to prepare lists of "surface waters that do not meet applicable water quality standards", referred to as impaired waters, and to establish Total Maximum Daily Loads (TMDLs) of pollutants for these waters on a prioritized schedule. A TMDL establishes the maximum daily amount of a pollutant that a waterbody can assimilate from all sources without causing exceedances of water quality standards. As such, the development of TMDLs is an important step toward restoring surface waters to their designated uses.

Pi-Erh Lin, Duane Meeter, and I are developing statistical procedures for identifying impaired waters in Florida. In our study, a nonparametric procedure is proposed for listing and delisting impaired waterbodies based on criterion threshold exceedances and sample sizes. The uncertainty of estimated exceedance probabilities is examined, and tests of hypotheses about the true exceedance probabilities of pollutants and metals are performed. The proposed nonparametric procedure will provide any state or region with a scientific approach for identifying impaired surface waters and developing rules toward restoring impaired waters to their designated uses.

2). "Development of an Operational System for Probabilistic Quantitative Precipitation Forecasting over the United States", with Richard L. Pfeffer, Geophysical Fluid Dynamics Institute (June 2000 — September 2003).

In response to the stated needs of the National Centers for Environmental Prediction for improved forecast models for probabilistic quantitative precipitation forecasting, Richard Pfeffer and I proposed to develop a statistical-dynamical ensemble forecast system for this purpose. This project is tentatively funded by the Collaborative Science, Technology, and Applied Research (CSTAR) Program of the National Weather Service (NWS) for three years (2001-2003).

In this project, we will develop and apply a suite of linear and non-linear statistical methods for improving probabilistic quantitative precipitation forecasting over the U.S. The methods include linear regression, logistic regression, discriminant analysis, neural networks, principal component analysis, and generalized linear and additive models. We will first apply each statistical method to the predictor pool of surface and upper air observations and variables from a single numerical model, and then create a statistical ensemble forecast system by optimally combining the precipitation predictions made by the individual statistical methods.

3). "Environmental Effects of Chemical Mixtures: Eye and Nasal Irritation Sensitivity Study", with James C. Walker, Martin Kendal-Reed, Sensory Research Institute, and **Sandy Hall**, Ph.D. candidate, FSU Department of Statistics (June 2000 —)

Perceived irritation of the eye and nose is a common complaint in environments in which the indoor air quality is described as unacceptable. Our study focuses on establish the quantitative relationship between the chemical composition of the air (contaminated with either single compounds, such as acetic acid, propionic acid and ammonia, or mixture) and the magnitude of perceived eye and nasal irritation. Statistical methods used in this study include experimental design, analysis of variance, repeated measures analysis, and generalized linear and additive models.

Jayaram Sethuraman and Anuj Srivastava are continuing work on their Army Research Office grant "Research on Algorithms and Performance in Bayesian Automatic Target Recognition." **Srivastava** is also working on another Army grant "Research on Applications of Bayesian Automated Target Recognition."

Anuj **Srivastava** has received an exploratory grant from US Army Missile Command. Together with doctoral student **Brian Thomasson**, and Dr. Richard Sims, of US AMCOM, they are developing tools for analysis of infrared images, a new area with tremendous potential. FSU is supporting this effort by funding the purchase of an infrared camera. The title of the grant is "Statistical Measures Analysis for Real Time ATR Classifier Implementation."

n Review

Selected Presentations

Xufeng Niu attended six Impaired Water Technical Advisory Committee Meetings (January 20 at Jacksonville, February 17 at Pensacola, March 23 at Tallahassee, April 20 at Gainesville, June 21-22 at St. Pete Beach, and July 17-18 at Tampa) to discuss procedures for identifying impaired waterbodies in Florida.

Ian McKeague attended the Symposium on Inference for Stochastic Processes, Athens, Georgia, May 10—12, 2000. Dr. McKeague also attended the XXth International Biometric Conference, Berkeley, California, July 1-7, 2000; the Annual Meeting of the American Statistical Association, Indianapolis, August 2000; and the First European Conference on Spatial and Computational Statistics, Ambleside, England, September 2000.

Ian McKeague was an Invited speaker at the Department of Biostatistics, University of Copenhagen, September 2000.

Myles Hollander travelled to Bordeaux, France for the Second International Conference on Mathematical Methods in Relaiblity at Victor Segalen University, July 4-7, 2000. His talk on nonparametric estimation in recurrent data models was based on joint research with Edsel Pena and Robert Strawderman.

Anuj Srivastava presented an invited talk on Jump-Diffusion Processeson Matrix Lie Groups for Bayesian Inference at the IEEE Signal Processing Workshop on Higher-Order Statistics in Caesarea, Israel in June 1999.

Selected Publications

Hollander, M., Laird, G., and **Song, K.**, Maximum Likelihood estimation in the proportional hazards model of random censorship, *Statistics*, 2001 (to appear).

Elsner, J. B., **Jagger, T**., and **Niu, X-F**., Changes in the Rates of North Atlantic Major Hurricane Activity During the 20th Century, *Geophysical Research Letters*, 27, NO. 12, 1743-1746, 2000. This paper documented and explained changes in the rates of North Atlantic major hurricanes over the 20th century. A change-point analysis identifies two contrasting regimes of activity. The regimes have significantly different occurrence rates that coincide with changes in the climate over the extratropical North Atlantic.

McKeague, I. W. and Wefelmeyer, W., Markov Chain Monte Carlo and Rao-Blackwellization, *Statistical Planning and Inference*, 85, 171-182, 2000. We introduce a form of Rao-Blackwellization for Markov chains which uses the transition distribution for conditioning. We show that for reversible Markov chains, this form of Rao-Blackwellization always reduces the asymptotic variance, and derive two explicit forms of the variance reduction obtained through repeated Rao-Blackwellization. The result applies to many Markov chain Monte Carlo methods used in practice. Applications to data augmentation and Ising models are discussed.

Einmahl, J. H. J. and **McKeague, I. W.**, Confidence Tubes for Multiple Quantile Plots via Empirical Likelihood. *The Annals of Statistics*, 27, 1348-1367, 1999. The Q-Q plot is a well known and widely used graphical method for comparing two distributions. The method is especially useful when confidence limits are added. This paper constructs empirical likelihood based simultaneous confidence bands for Q-Q plots for censored or uncensored data.

Wang, Y., Amundson, R. and **Niu, X-F,** Seasonal and Altitudinal Variation in Decomposition of Soil Organic Matter Inferred From Radiocarbon Measurements of Soil CO2 Flux, *Global Biogeochemical Cycle*, 14, No. 1, 199-211, 2000. In this paper, we developed a technique for sample soil-respired CO2 for isotopic measurements and a model that relates the radiocarbon content of soil-respired CO2 to the rate of C cycling in soil. Polynomial regression models including various terms of soil temperature, moisture, and site variability suggest that soil moisture was a major factor controlling the rate of soil organic matter decomposition and soil CO2 flux in the Sierra Navada soils.

Song, K.S., Limit Theorems for Nonparametric Sample Entropy Estimators, *Statistics and Probability Letters*, 49, 9-18, 2000.

Song, K.S., and Li, T., A Statistically and Computationally Efficient Method for Frequency Estimation, *Stochastic Processes and Their Applications* 86, 29-47, 2000.

Srivastava, A., A Nonlinear Filtering Method for Geometric Subspace Tracking*, IEEE Sensor Array and Multichannel Signal Processing Workshop, Boston,March 2000*

Srivastava, A, Bayesian Filtering for Tracking Pose and Location of Rigid, *In proceedings of SPIE Aerosense*, Orlando, FL, April 2000.

Srivastava, A., A Bayesian Approach to Geometric Subspace Estimation, *IEEE Transactions on Signal Processing*, 48, No. 5, 1390-1400, 2000.

Srivastava, A., Asymptotic Performance Analysis of Bayesian Object Recognition, *IEEE Transactions on Information Theory*, 46, No. 4, 1658-1665, July, 2000.

Other News & Notes

Larry Crow (Ph.D. 1971) and **Lanny Larson** (Ph.D. 1975) returned to the department in October to present a "Grads Made Good" colloquium. Crow presented the talk "Reliability Growth Projection Model". Larson's presentation was on "Performance Based Funding". Copies of their abstracts (and others) can be found at http://stat.fsu.edu/colloquium/next.html.

Anuj Srivastava has accepted an invitation to be an Associate Editor for the *Journal of Statistical Planning and Inference* for a three-year term starting in January 2001.

Doug Zahn and Pi-Erh Lin are both on sabbatical this year. At the request of the Computer Science Department, **Dr. Lin** is currently working half-time to develop material for a 5 credit hour distance learning course in Probability and Statistics for Engineers. The new calculus-based course is expected to be offered for the first time in Summer 2001. **Dr. Zahn** is working on a book with Psychology Professor Dan Boroto based on their 20 years of collaboration on the subject of effective and efficient consulting.

From left to right: Caren White, Yichuan Zhao, Shaojun Zhang, Anna Auguste, and Doug Zahn at our Fall Welcoming and Orientation Meeting for new students and TA's.

The department admitted seven new students this Fall. Our new graduate students are **Alexia Athienitis** (Cyprus and the UK), **Anna Auguste** (Trinidad), **Radha Bose** (Guyana)(M.S. Mathematics, FSU), **Robert Fowler** (Maryland), **Matthew Hall** (Florida) (Ph.D. Math Education, FSU), **Michael Smith** (Florida) (a Major in the U.S. Army), and **Caren White** (Port St. Joe, Florida).

In the month of October our graduate students hosted the second round of "Seminars for Research and DIS Opportunities" featuring a series of talks by the faculty. In this series, faculty choose their own topics in an attempt to provide students with brief overviews of their teaching and/or research interests. The seminars are also designed to bring attention to possible dissertation topics, grant funding for research assistantships, DIS topics, and opportunities for interdisciplinary research and consulting with other departments. Students find the talks to be an invaluable way to become more familiar with their faculty.

By the end of Fall 2001, our building may have a different look. Plans are in the works to enclose the colonnade on the first floor level. The renovation would give our department and the Department of Oceanography more room for offices and would also create 2 large technology- enhanced classrooms.

Our colloquium speakers for 2000 were: Fred Huffer (FSU), Nancy Reid, (University of Toronto), Don Fraser (University of Toronto), Ian McKeague (FSU), Larry Crow (IIT Research), Lanny Larson (Tallahassee Community College), Anuj Srivastava (FSU), Peter Hall (Australian National University), Paul Thompson (UCLA), Sam Wu (University of Florida), Glen Laird (FSU), Shaojun Zhang (FSU), Bradley Jones (SAS Institute), George Casella (Cornell), Drew Carter (Yale), Florentina Bunea, (University of Washington), Tom Jagger (FSU), Aaron Lanterman (University of Illinois at Urbana-Champaign), Jan Hanning (Michigan State), and Duane Meeter (FSU).

Ph.D. candidate **Shaojun Zhang** and his wife Ya Wang are the proud parents of a new baby girl. Cindy, who weighed in at 4 pounds and 12 ounces, was born on September 26, 2000.

Dr. **Kaisheng Song** is also a new father. Kaisheng's wife, Darui Xu, gave birth to a 9 pounds, 6 oz baby boy, Victor, on February 1, 2000.

Dr. Haru Martinez is visiting our department this year as a Visiting Scholar/Professor. Dr. Martinez is a Professor at Universidad Central de Venezuela.

Duane Meeter and his wife **Marge** (M.S. 1979) spent most of their summer in Highlands, North Carolina. They recently tore down their mountain cottage to construct an A-frame with a gorgeous view (elevation 4200 feet). Dr. Meeter will have even more free time two years from now because at the end of Spring 2002, Dr. Meeter will have completed the "phased" part of his retirement. Spring 2001 and Spring 2002 are the last semesters that Meeter will teach.

Anita Loizeaux, wife of Ph.D. candidate **Marc Loizeaux**, debuted her newest candy creation, Edo, at the All-Candy Expo last year. Edo is a colorful and edible candy that can be shaped and molded. The candy has proven to be a huge success.

Greetings from the Chairman, cont'd.

(Continued from page 1)

the Army grant "Research on Algorithms and Performance in Bayesian Automatic Target Recognition," and Anuj also has an individual Army grant on the same subject as well as a Dynetics grant on "Statistical Measures for Real Time ATR Classifier Implementation." Ian McKeague has an NSF grant on "Efficient Condensation of Spatial/Temporal Data" and an NSA grant on "Bayesian Signature Recognition." Pi-Erh Lin, Xufeng Niu and Duane Meeter have a DEP grant on "Statistical/Analysis of Environmental and Ecological Data." Lei Li has an NSF grant on "Estimating Parameters in Spike-Convolution Models and Mixture Models" and Myles Hollander has an NIH grant on "Models and Analysis of Recurrent Data with Intervention."

In August, 2000 Flori Bunea joined our Department after earning a Ph.D. in Statistics from the University of Washington. Flori went to Seattle from the University of Bucharest in Romania, where she had earned B.S. and M.S. degrees in Mathematics. Flori has sparked our department with new research interests such as model selection and Florida hurricane-force energy.

Whereas the recruitment of Flori was a great success, not all of our recruiting has reached fruition. We made determined forays to hire a statistician for a Francis Eppes Endowed Chair. Although not yet successful, we continue to seek an outstanding scholar for this position.

The Fancis Eppes Endowed Chair is not the only Endowed Chair in the future of our Department. Ron (M.S. Statistics, 1967) and Carolyn Hobbs (B.S. Recreation Studies, 1965) continue to give extremely generous support to our department. After donating $200,000, thus far, they have pledged an additional $100,000 annually until $600,000 is reached by December 31, 2003. Then, with state matching funds, we will be able to hire an Eminent Scholar for the Ronald and Carolyn Hobbs Chair for the start of the 2004-2005 academic year. Ron announced the gift in a talk he gave at our 40th Anniversary Celebration in April, 2000. We are very grateful to Ron and Carolyn.

In February, 2000 we hosted the Annual Meeting of the Florida Chapter of the American Statistical Association, organized by Chapter President Jayaram Sethuraman. We had an excellent meeting featuring invited talks by Malay Ghosh, University of Florida, Ulf Grenander, Brown University, and Nozer Singpurwalla, George Washington University.

In April, 2000 Kaisheng Song received a University Teaching Award for excellence in undergraduate teaching. This is an award based on student reviews and this honors Kaisheng's ability as a lecturer.

The Department's 40th anniversary celebration in April, 2000 was a great success. Dean Donald Foss, College of Arts and Sciences, delivered welcoming remarks followed by presentations by 28 speakers over a 2-day period. It was exhilarating to renew old ties with our graduates, former faculty and friends and be updated on their professional and personal lives. More details, photos and a list of the attendees are in this newsletter.

In May, 2000 the Florida legislature approved a new Medical School for FSU. This is the first new medical school in the United States in 20 years. Rather than employing the traditional teaching hospital model, students of the new FSU Medical School will train at clinics, hospitals, and doctors' offices in Tallahassee, Jacksonville, Orlando, Sarasota, and Pensacola. FSU's new Medical School will build on the Program in Medical Sciences which has been educating medical students for over 30 years, and will focus on training students to become primary-care physicians in rural communities and to develop special skills for treating Florida's elderly population. In addition to filling these needs, the Medical School will create research opportunities and will help us recruit undergraduate and graduate students. To support our Department, the FSU Medical School and a new program in Epidemiology, we are currently recruiting for junior and senior biostatisticians.

In September, 2000 Tom Jagger (now at MathSoft, Seattle) was awarded the 1999-2000 Ralph A. Bradley Award, named in honor of our founder. Earlier in the year, Tom had received the Anna and Yongyuan Li award for the best student colloquium. This award honors the memory of our very bright graduate student Yongyuan Li.

In October, 2000 Larry Crow (Ph.D. 1971) was honored by Florida State University and named a "Grad Made Good." Larry, Vice President, Reliability and Sustainment Programs at IIT Research Institute, Huntsville, Alabama, gave a talk on reliability growth at Statistics' Grads Made Good Colloquium. The second half of that colloquium was presented by Lanny Larson (Ph.D., 1975). Lanny, Deputy Executive Director for Workforce Development, State Board of Community Colleges, Florida, spoke on performance based funding. The colloquium gave our current students a view of activities performed by successful statisticians in nonacademic settings. Larry, when speaking at the "Grads Made Good" Breakfast on Homecoming Saturday, acknowledged and gave thanks to three past members of our faculty who made important contributions to his life. Larry's "A-list" consisted of Dick Cornell, Ismail Shimi, and Frank Proschan.

In November, 2000, Peter Hall, Australian National University, visited our Department for two days and gave lectures on "Data tuning" and "Estimating fault lines and boundaries". We very much enjoyed and benefited from Peter's visits and are trying to break into his busy schedule and have him return in the near future.

In November, 2000, the Biannual Florida State University-University of Florida Joint Statistics Colloquium was held in

(Continued on page 12)

Florida State University
Department of Statistics
Tallahassee FL 32306-4330
(850) 644-3218
info@stat.fsu.edu

(Continued from page 11)

Tallahassee and Sam Wu of UF gave the colloquium talk entitled "Sequential Information with Imperfect Feedback Information". A large group of FSU and UF faculty and students attended the event. Last November 1999, Jim Booth of UF spoke in Tallahassee and Anuj Srivastava spoke in Gainesville in March, 2000. In March 2001, Lei Li will be the speaker at UF. The colloquia series strives to foster interaction between the two departments and to strengthen statistics in the region.

Computing facilities continue to improve in the department and university. Within the department, the administration has supported new equipment (SUNS, PC's, printers, infrared and digital cameras, projectors, etc.) for faculty, staff, students and the LCV. The School for Computational Science and Information Technology (CSIT), has a new IBM supercomputer that has 168 computer chips and 84 gigabytes of memory. It is 8000 times more powerful than a standard desktop. It is also more powerful than a speeding bullet. It cannot, however, leap tall buildings in a single bound.

There is a concerted thrust in distance learning at FSU that will have major effects on the traditional role of teaching. Pi-Erh Lin is currently developing a distance learning course which will be a required course in a distance learning program in Computer Science.

Statistics will gain additional space by the end of 2001. Plans have been approved to enclose the patio on the first floor of the Oceanography Statistics Building. This will provide us with additional offices and two state-of-the-art classrooms. The future of our Department and Florida State University is very bright. In his October 2000 speech to the faculty, President Sandy D'Alemberte made a number of predictions including: FSU will be in the top 50 American Universities in endowment ranking within the next five years; FSU faculty will lead the nation in the discovery of effective treatment of our most serious diseases, including cancer; in addition to superb on-campus students, we will set the model for a residential university that is able to deliver distance learning to large numbers of off-campus students without compromising academic standards; faculty recruitment will bring increasing numbers of distinguished faculty, including national academy members, to FSU; the campus will increase in size and become more beautiful.

I have enjoyed my year as chairman. The students are bright and energetic. The faculty and staff (Ginger Grice, Office Manager; Pam McGhee, Program Assistant; and James Stricherz, Computer Specialist) are excellent and supportive. Bettye Stokes left for a position in Computer Science and we wish her well.

I wish all of you good fortune for the new year. Please keep us posted on your activities and return to see the new improvements to the Department and University.

Myles Hollander