

DEPARTMENT OF STATISTICS FLORIDA STATE UNIVERSITY

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Ralph Allan Bradley 1923-2001 *by Myles Hollander*

Ralph Allan Bradley, the founder of FSU's Statistics Department and an FSU Lawton Professor, died peacefully at his home in Athens, Georgia on October 30, 2001.

He served on FSU's faculty from 1959-1982 and was Head of the Statistics Department for the first 19 years. He also made major contributions to the Statistics Department at Virginia Polytechnic Institute while on that faculty from 1950-1959 and to the Statistics Department at the University of Georgia while on that faculty from 1982-1992. When he died, he held the title of Professor Emeritus at both Florida State and Georgia Universities.

Ralph Bradley was born in Smith Falls, Ontario, Canada on November 28, 1923 but grew up in the village of Wellington on the shores of Lake Ontario. He graduated from Queen's University in 1944 with an honors degree in Mathematics and Physics, served in the Canadian Army from 1944-1945 and completed an M.A. degree at Queen's in 1946. He received his Ph.D. in Statistics from the University of North Carolina, Chapel Hill, in 1949.

Dr. Bradley was a leading researcher throughout his career. He wrote over 110 research papers in such areas as design of experiments, nonparametric statistics, sequential analysis and multivariate analysis. Most of his papers stemmed from his statistical consulting on applied problems. His consulting with General Foods on statistical methods in product evaluation was particularly influential in stimulating his own research and the research of others.

Dr. Bradley was a leader in the statistics profession and in professional societies. He was editor of *Biometrics*, 1957-1962, Vice-President and President of the Eastern North American Region (1963-1965), and Vice-President (1975-1978) and President (1981) of the American Statistical Association (ASA). He was an editorial advisor on the *Wiley Series on Probability and Statistics* from 1954 to 1998.

Dr. Bradley received numerous honors. In addition to being named Robert O. Lawton Distinguished Professor in 1970, he was a Fellow of the American Statistical Association, a Fellow of the Institute of Mathematical Statistics, and an elected member of the International Statistical Institute. He received Founders Awards from the ASA and the Southern Regional Committee on Statistics. He was a pillar in the statistics profession, he taught many people how to be professionals, and he made it exciting to be a faculty member at a major university.

Dr. Bradley led a balanced life. He loved fishing, boating, golf, and tennis. He was a master craftsman who was extremely talented at woodworking and restoring antique cars. He and his beloved wife Marion (they celebrated their 55th wedding anniversary in September, 2001) were best friends and perennial globetrotters. He reveled in his family, lifelong pal Marion, son Allan, and daughter Linda, Allan's wife Millie, and Linda's husband, Tom, and his grandchildren Jonathan, Allison, Alex and Cailleigh. In addition to his family, he left many friends who admired him and within whom his spirit lives.



Debabratu Basu 1925-2001 *by Jayaram Sethuraman*

Professor Emeritus Debabrata Basu passed away on March 24, 2001. He was seventy six. D. Basu (called Deb by close acquaintances, but more usually as Dr. Basu by his students and associates) was born in 1925 in Dacca, India (now Daka Bangla Desh). He studied Mathematics at Dacca University (now Daka University). He had a course in Statistics as part of the undergraduate honors program in Mathematics. After getting his Master's degree from Dacca University, Basu taught there from 1947 to 1948. He had dreamt of being a mathematician like his father N.M. Basu and his favorite professor T. Vijayaraghavan, but this was not to be because of the tragic political events of the partition

Debabratu Basu of India. He moved to Calcutta (now Kolkata) permanently in 1950 and joined the Indian Statistical Institute as a research scholar with C. R. Rao. After submitting his thesis in 1953, he went to Berkeley as a Fulbright Scholar. He returned a convinced Neyman-Pearsonian. His doubts began when he heard about the conditionality paradoxes from Fisher during Fisher's visit to the Institute in 1955. Then began a long quest which ended in his adopting a Bayesian point of view. He influenced many in India and elsewhere to become a Bayesian.

I met Dr. Basu in 1957 when I joined the Indian Statistical Institute as a research scholar. He quizzed me on the very first

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Duane Meeter Day at Florida State University Saturday, April 20, 2002



Duane Meeter

Following a distinguished career, Professor Duane Meeter will retire from Florida State University in the spring of 2002. On Saturday, April 20, 2002, the Department of Statistics at Florida State University will host a Duane Meeter Day celebration in recognition of his professional contributions. We plan to present him with a book of letters of appreciation,

written about him by his peers, former students and friends. If you would like to contribute a letter, please send it, unfolded, by April 5, 2002 to:

Dr. Douglas Zahn
Florida State University
Department of Statistics
Tallahassee, FL 32306-4330

The Duane Meeter Day will consist of reminiscences by invited friends and colleagues during the morning of April 20, followed by a luncheon at the Florida State University Turnbull Center for Professional Development.

Duane Meeter Day

Please reserve Saturday, April 20, 2002 on your calendar and plan to join us for the festivities. For more information visit our web site <http://stat.fsu.edu>.

Ian McKeague - Ralph Bradley Professor of Statistics

Ian W. McKeague was awarded the title of Ralph A. Bradley Professor of Statistics earlier this year. The award came as part of the 2nd round of the President's and Provost's Named Professorship Program which was established in 2000.

The Named Professorships honor outstanding tenured professors at FSU who exemplify standards of excellence in teaching, research, and service.

The titles of the awards

are carefully selected by each academic discipline as tributes to former faculty members or administrators or other distinguished people in their fields. Dr. McKeague's award is named after the founder of our department, Dr. Ralph A. Bradley. Along with the honorary title, Dr. McKeague received a \$5000 per year salary supplement.



Ian McKeague

Jayaram Sethuraman was awarded the Chapter Service Award by the American Statistical Association for his service to the Florida Chapter of the Association. Earlier this year he completed his two-year stint as President of the Florida Chapter. During his tenure, he instituted a best student paper award (with a cash prize) to be given to the best student presentation at the annual meeting of the Florida chapter.

Steve Ramsier, Assistant in Statistics



Steve Ramsier

Dr. Steven Ramsier joined our department this Fall to take on the position of Assistant in Statistics. Dr. Ramsier earned his PhD in 1989 from Clemson University. From 1989-1993 he served as an Associate Professor at Tennessee Technological University. Before joining our department, he spent 8 years as a Statistical Methods Manager, Consultant, and Seminar Leader for Management Resources International in Saline, Michigan.

I was originally and continue to be drawn to statistics because it provides a way to describe many things in the world quantitatively. Just about any activity can be defined in terms of a process. Statistical methods allow us to analyze process data through the understanding of variation and provide guidance for us to proactively improve a process. I am particularly interested in the application of multivariate methods and data visualization techniques to quality improvement efforts in the industrial processes.

In working as a consultant with managers and engineers in the automotive, semiconductor, medical device, and a variety of other industries, I have discovered that people's different learning styles make the communication of statistical concepts challenging. Often a carefully crafted graphical display can help in expressing statistical information and can vastly enhance one's understanding. A picture can be worth a thousand stats!

Statistical thinking, however, embodies more than just a graphical approach. Effective decision making requires thinking from both sides of the brain: the intuitive right side and the logical left side. Therefore, I feel that applied statistics courses should contain both creative and analytical elements that appeal to both channels of thinking.

Dr. Ramsier's wife, Marsha Rehm, is also at FSU. She is an Associate Professor in the College of Human Sciences. Dr. Ramsier and Dr. Rehm have a 6-year old daughter, Leah.

Kai-Sheng Song Earns Promotion and Tenure

This past February **Kai-Sheng Song** was awarded the rank of Associate Professor with tenure, effective Fall 2001. Kaisheng has been with our department since Fall, 1995. He earned his PhD in Statistics from the University of California, Davis in 1993 and then spent one year each as Visiting Assistant Professor at Purdue (1993-94) and Texas A&M (94-95). He is an enthusiastic researcher in the field of statistics and has already been recognized for his excellence in teaching with a University Teaching Award in 2000. His interests include change-point problems, goodness of fit procedures, information theory, time series analysis, nonparametric statistics and survival analysis.



Kai-Sheng Song

The Statistical Dungeon Is No More *by Virginia Hellman*

Every semester hundreds of undergraduate students scramble to get a seat in one of our core statistics courses. Some are eager to learn and others are eager to get it over with. But all of them dreaded the descent into “the Dungeon”! That was the name given, by past students, to the classroom where most of our classes were held. It was located in the basement of the Oceanography/Statistics Building (OSB), it had no windows and the heating and air conditioning system were abominable! Well, the Statistical Dungeon is no more!

This past summer the residents of this building endured loud, obnoxious jackhammers demolishing parts of the first floor while strong vibrations rattled everything in their offices until they were certain the floor would collapse beneath them. To enter the building you had to maneuver through the construction maze and face the dust and debris that enveloped the first floor. The first floor was sealed off while they removed old asbestos tiles. Professors and graduate students had to be moved into temporary spaces due to the dust, debris, and lack of air conditioning, and classes were moved due to access and noise. But all the aggravation was worth it, because emerging through all this chaos was, not one but two brand-new, state-of-the-art classrooms! A new heating and air conditioning system was installed. Sound-absorbing carpet replaced the old tile floors, and tables with comfortable chairs replaced the old tablet chairs. There are white boards, electronic projector screens, LCD projectors, computer hook-ups, document cameras, microphones and that good old standby – the overhead projector. And to provide a warm glow and to give students and instructors a portal for mental relief, there are windows! So even though we will continue to have some students eager to learn, while the others still just want to get it over with – no one will ever have to descend into “the Dungeon”

At right: photo taken in one of the new rooms



Student News

PhD candidates **Anna Auguste** and **Mick Smith** shared the Best First-Year Student Award in Theoretical Statistics for 2000-2001.

Mick Smith won the award for Best First-Year Student in Applied Statistics.

PhD candidates **Seo-Eun Choi** and **Blake Whitten** tied for the 2000-2001 Anna & Yongyuan Li Award for the best student colloquium.

Seo-eun Choi and her husband Hyunsoo Kim had a baby girl on October 11th. Suh Young Kim weighed 7 lbs, 14 ounces.

PhD candidate **Wenji Pu** interned at IMS Health in Philadelphia in Summer, 2001.

(Continued on page 12)

Thank You

The Department of Statistics would like to thank the following alumni and their associates for their generous contributions to the Statistics General Development Fund this year. We are genuinely proud of our alumni and glad to know they support us.

Donald L. Jennings (BA 1966 Math, MS Statistics 1968)

Glenn J. Eschrich (BS 1966)

James D. Lynch (MS 1972, PhD 1974)

William D. Warde (MS 1967)

Household International - (to match Doug Ransom's gift last year)

Sylvia Shore-Katz and **Terry Katz** (MS 1985)

Schering-Plough Foundation, INC (to match Terry Katz's gift)

Letter from the Chair



Myles Hollander

As many of you know, our university has evolved from the time in 1851 when the Florida General Assembly established the Seminary West of the Suwannee. This year FSU is celebrating its sesquicentennial. Statistics has been contributing to FSU's excellence since 1959 when Ralph A. Bradley founded the Department. This past year our University and Department have been very active and it is a pleasure for me to briefly highlight some of our Department's activities, many of which are presented in greater detail in other parts of this newsletter. I begin, however, with two sad passings that are deeply felt by the Department. Ralph Bradley, the father of our Department, a leading researcher in experimental designs and nonparametric statistics and a dynamic leader in the statistics profession, died on October 30, 2001 in Athens, Georgia. Debabrata Basu, a leading researcher in Bayesian statistics and the foundations of statistics, died on March 24, 2001. Ralph and Deb were pillars of the profession and our Department, and close friends of many of us. We are forever grateful for their contributions and their friendship.

Our faculty have been very active in externally funded research this year (see pages 6-9). Anuj Srivastava and others are working on automated face recognition under NSF support. Anuj Srivastava and Xiuwen Liu (Computer Science) are doing research on automated characterization of terrains under support from the National Imagery and Mapping Agency. Ian McKeague is currently funded by NSF and NSA grants under which he works on a variety of topics including oceanographic and biomedical applications. Lei Li's research, supported by NSF, centers on the mathematical and statistical modeling of biological problems. Jayaram Sethuraman's research features problems in image analysis, convergence of Markov chain Monte Carlo methods, importance sampling from priors, strong approximations to posteriors in Bayesian methods and approximating flows in networks. Each year Sethu obtains funding from the National Academy of Applied Sciences to mentor high school students on research projects during the summer. Xufeng Niu, Pi-Erh Lin and Duane Meeter, are studying inter-laboratory comparisons to assess the comparability of phosphorous data from different labs analyzing Everglades's samples. Edsel Peña (University of South Carolina) and I, with NIH support, performed research to develop statistical models to describe recurrent events with intervention, when there is covariate information available.

Our recruiting continues. We are seeking a statistician for a Francis Eppes endowed chair and two biostatisticians to broaden our program and support the new Medical School and a program in Epidemiology. The Medical School, under the leadership of Dean Joseph Scherger, began operating this year with 30 students with plans to grow to 480 students in 2006. We are also looking ahead to the appointment of a Ron and Carolyn Hobbs Chair in Statistics. Ron (M.S. Statistics, 1967) and Carolyn (B.S. Recreation Studies, 1965) continue to give generously to our department and they have pledged \$100,000 annually until \$600,000 is reached by December 31, 2003. Then, with state matching funds, we should be able to hire an Eminent Scholar for the Chair for the start of the 2004-2005 academic year. We are very grateful to Ron and Carolyn for their devoted support to our Department.

During this Fall term we have been using our new technology-enhanced classrooms which are part of the expanded space we gained by the enclosure of the first floor patio. The enclosure, which was completed during the summer, also provides Statistics with additional office space for new faculty. Associate Vice President of Academic Affairs Fred Leysieffer, who is also a faculty member in our Department, played a key role, along with Dean Donald Foss and Executive Vice President and Provost Larry Abele, in making the patio enclosure a reality. Despite Fred's large number of university-wide responsibilities, he strongly supports the Department in many areas including the recruitment of new faculty and by participating in Departmental events.

Steve Ramsier is our new Assistant in Statistics and coordinates the teaching of our "Fundamental Business Statistics" and "Introduction to Applied Statistics" courses, bringing innovation and dedication to his teaching. Our excellent staff of Ginger Hellman (Office Manager), Pam McGhee (Program Assistant), and James Stricherz (Computer Specialist) are now joined by Delenie Garrido (Secretary) and Evangelous Robinson (Grant Specialist). We also have nine new graduate students this year.

Ian McKeague was honored by being named Ralph A. Bradley Professor of Statistics for his outstanding contributions to teaching, research, and service. Kai-Sheng Song's significant achievements merited promotion to Associate Professor with tenure, and Pi-Erh Lin was named Associate Chair in recognition of his dedicated departmental contributions.

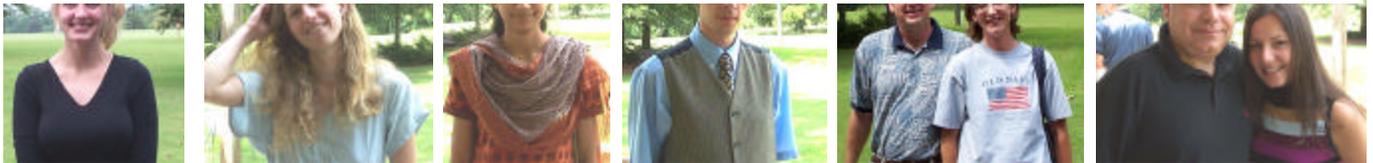
In April, 2002, Duane Meeter will retire after 38 years of dedicated service to the department and university (<http://stat.fsu.edu/DMD.html>). Please plan to attend Duane Meeter Day on April 20, 2002.

Max Linn left his position as Assistant in Statistics this Spring, and we wish him well as he pursues new horizons. In a nation and community deeply sorrowed and angered by the terrible tragedies of September 11, 2001, and in a weakened economy, the University, under the leadership of President Sandy D'Alemberte, is moving forward. The establishment of new Eppes Chairs continues, the University is embarking on a Capital Campaign, and the Medical School is in the early phases of medical training and research that will enhance the quality of medical care in Florida. Providing an environment where education and research flourish, where there are stimulating and unimpeded exchanges of ideas that lead to new discoveries, is the best prescription for progress. As FSU makes significant contributions to Florida, the nation and the world, the Statistics Department's goal is to play a leading role.

Our New Graduate Students

The Department welcomed 8 new grad students this Fall (and will have one new student in Spring). In September, Chairman Myles Hollander and his wife, Glee, hosted a welcoming tea at their home. New and returning students, faculty, and staff were invited so that all could get better acquainted and have fun. As has been done in the last few years, Doug Zahn, our TA coordinator also held orientation sessions at the start of the Fall semester for new and returning graduate assistants. Our new students are: **Radu Herbei** (Romania), **Nicole Ishill** (New York), **Zhiguo Li** (China), **Mahtab Munshi** (India), **Rob Neher** (a Captain in the US Air Force, from Indiana), **Angela Roberson** (Florida), **Anya Savage** (California), **Jeanette Simino** (Missouri), and **Katherine Zimmer** (Indiana).

Katherine



Delenie Garrido, Departmental Secretary

Delenie Garrido joined our department this Fall as our new secretary. About Delenie:

"I am 19 years old, was born in Albuquerque, New Mexico and moved to Georgetown, TX when I was 12. I graduated from high school when I was 17 and then moved to Killeen, TX to go to school at Central Texas College. While in college I married Gustavo Garrido from Venezuela. His family lives here in Florida, and I have wanted to go to FSU since I was in high school but couldn't afford out-of-state tuition. I moved here for the opportunity to go to school and will be a part-time student in the Spring.

Areas of Interest: I have worked with children in the day care setting since I was 16. I interned at elementary schools in my junior and senior years in high school (Early Childhood Professions) and was the Assistant Director/Two year old teacher of Lil' Angel Daycare the summer

after my senior year of high school. I feel that it is important to teach children about other countries and other cultures.

I want to major in international relations and learn both Spanish and Japanese. I will travel and see the world first hand - not through the post cards that people send me."



Delenie Garrido

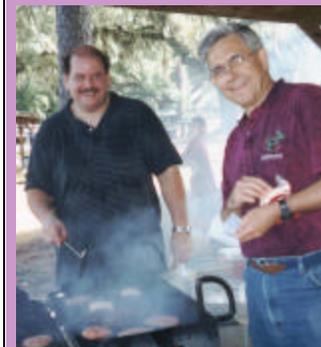
Evangelous Robinson, Grant Specialist



Evangelous Robinson

Evangelous Robinson was hired this October as a grant specialist, half-time in our department and half-time in the Department of Mathematics. Evangelous first began work at FSU in 1983 as a clerk and later as an accountant. In 1995 she moved to California. In June, 2001, she came back to Tallahassee and back to FSU where she was worked as a Senior Fiscal Assistant for the Math department until her promotion to Grant Specialist. Ms. Robinson is the first grant specialist our department has ever had and is a welcome addition.

This year's Fall picnic, sponsored by the



Steve Ramsier and Doug Zahn

faculty and coordinated by Steve Ramsier, was held at the "Reservation". The Spring picnic will be sponsored by our graduate students.

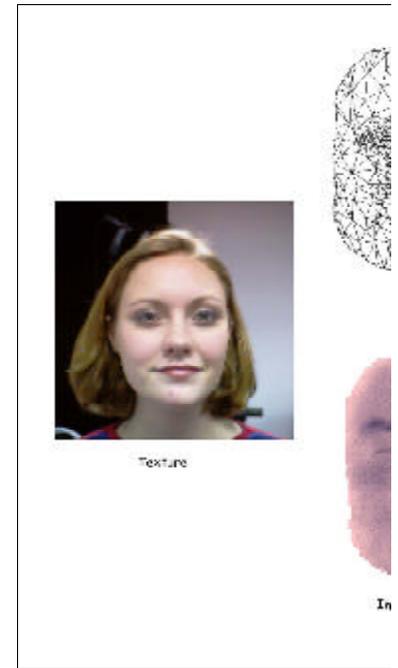
Development of Geometrical and Statistical Models for Automated Object I

This research is being performed under an NSF funded Focused Research Group grant led by **Anuj Srivastava**. Other team members include David Banks (CS, expert in graphics), Gordon Erlebacher (CSIT, expert in high speed computing), and Eric Klassen (Math, expert in surface geometry). Several graduates students, including Curt Heshner (CSIT), Hui Song (CS), and Alexei Aganin (Math) are also involved.

Automated face recognition has become an increasingly important problem, yet it remains a challenge. The goal is to have a computer automatically recognize a person from his/her picture taken from arbitrary angles, at arbitrary facial expressions, under arbitrary light conditions, and with arbitrary backgrounds. The current products (being deployed at the airports) rely on finding certain features (nose, eyes, lips etc) in a picture, and computing distances between them to obtain a trait that characterizes a person to some extent. A major difficulty lies in finding these features automatically in images, under arbitrary conditions, in a robust fashion.

Our approach is to use full physical representation of a face (it's 3D surface, texture, reflectivity etc.), learn how it deforms under facial expressions, and mathematically model them. Using a Minolta 3D scanner, we have generated 3D face models at resolutions of 40-90K polygons per facial surface and millions of pixels per facial texture. Given these templates, one can easily generate a picture from arbitrary pose and under arbitrary illumination conditions. To handle the more difficult issue of flexibility generated by facial expressions, such as smiles, frowns, expressions of fright, etc, we are developing a family of diffeomorphic transformations that capture the changes in facial surface from template to other expressions. Additionally, we are extending these representations to include other imaging modalities such as infrared (IR) sensing and range imaging. IR images can be used to recognize faces in night conditions with no source of illumination in

the scene. **Shown in the top panels texture, surface+ texture. The lower video, IR, and range sensors.**



Updating Report on the Everglades Round Robin Inter-laboratory Comparison Program. Xufeng Niu, Pi-Erh Lin and Duane Meeter. (Project Period, June 1999 — June 2002)

The Everglades Round Robin (ERR) Inter-laboratory Comparison Program was initiated by the Florida Department of Environmental Protection (FDEP) in 1995 for the purpose of assessing the comparability of phosphorus data from laboratories engaged in the analysis of samples from Everglades research. Twenty-four laboratories have participated in one or more of the nine ERR exercises conducted to date. Analyses for the data from ERR-II to ERR-VII were reported in Lin and Niu (1999).

In this updating report, we presented the results and analyses for the data from ERR-VIII and ERR-IX. Five sites were selected for these two ERRs. One laboratory (PPB Environmental Laboratories, INC.) sent in its ERR-IX results after the deadline. As requested by FDEP, the ERR-IX data were analyzed twice, with and without the results from the given laboratory.

Development of an Operational System for Probabilistic Quantitative Precipitation Forecasting over the United States. Xufeng Niu and L. Pfeffer, Geophysical Fluid Dynamics Institute. (Project Period, July 2001 — September 2003)

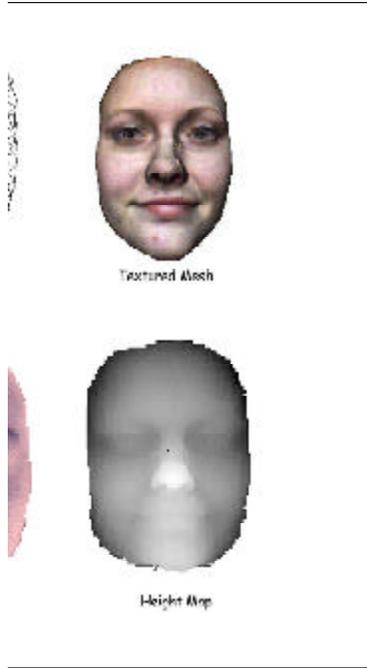
In response to the stated needs of the National Centers for Environmental Prediction for improved forecast models for probabilistic quantitative precipitation forecasting, Richard Pfeffer and I proposed to develop a statistical-dynamical ensemble cast system for this purpose. This project is funded by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

In this project, we are developing and applying a suite of linear and statistical methods for improving probabilistic quantitative precipitation forecasting over the U.S. The methods include linear regression, logistic regression, principal component analysis, neural networks, and generalized additive models. Two papers have been written on our joint research. "Comparison of Methodologies for Probabilistic Quantitative Precipitation Forecasting", is tentatively accepted by *Weather and Forecasting*.

REPORTS

Recognition

representations of a face: surface, low examples of face images for



Such representations of facial variability can be used, among other things, to track known faces in video images, to study changes in faces over time, to recognize known faces from their images, and to predict face changes under certain conditions, etc. We expect our approach to be robust to confusing factors like clutter, partial obscurations, low-resolution, low light etc. The computational complexity of this approach remains to be studied.

More information about Anuj Srivastava's research can be found at <http://lcv.stat.fsu.edu>

Statistical Approaches to the Ocean Circulation Inverse Problem

Ian McKeague and Kevin Speer (Oceanography) organized an IMS-Mini Meeting, "Statistical Approaches to the Ocean Circulation Inverse Problem," on November 13th and 14th, 2001. "Oceanography has evolved very quickly over the past decade with the increasing realization of the ocean's importance to climate around the globe, the implementation of large field experiments such as the World Ocean Circulation Experiment, and with the development of new technologies to measure temperature, movement, and other quantities in the ocean with satellites. A major effort is being made to integrate diverse observations and analyze larger datasets, even when the datasets are sparse. These efforts are challenging because of the complexity of the ocean and climate system." The meeting featured leading scientists from around the world who discussed their research in informal workshops open to the public. The meeting was sponsored by the Institute for Mathematical Statistics, the FSU Departments of Oceanography and Statistics, the FSU School of Computational Science and Information Technology, and the FSU College of Arts and Sciences.

Models and Analysis of Recurrent Events with Intervention. Myles Hollander

The research is joint with Edsel Peña (Bowling Green State University) who has also received a similar grant from NIH. The research is for the development and analysis of models that govern the occurrence of recurrent events in medical settings (e.g. recurrence of angina pectoris in patients with coronary disease, epileptic seizures, migraine headaches, ear infections in infants, etc.) The models will take into account medical intervention. Due to such intervention, the inter-arrival times of the recurrent events typically will not be identically distributed and may not be independent. These complications necessitate the development of new models and new statistical techniques for estimation and for model-validation. Future questions will address inferential techniques and goodness-of-fit for the models developed.

Computational Models and Algorithms for Automated Terrain and Target Recognition. Xiuwen Liu (Computer Science) and Anuj Srivastava

The National Imagery and Mapping Agency (NIMA) is interested in automated characterization (segmentation, labeling, etc) of terrains as seen in the satellite images. Methods for characterizing terrain maps can help in recognizing military targets sitting on these terrains. Liu and Srivastava have proposed a technique using statistical analysis of the spectral representation of images. This project is funded for a three year period starting 03/01.

Faculty in Review



Flori Bunea

Flori Bunea received a First Year Assistant Professor Award from FSU last year. She also received a prestigious 3-month research fellowship sponsored by Centre Nationale de Recherche Scientifique, Paris, France. (CNRS is the French equivalent of the NSF.)

“The CNRS organized a “Statistical Semester”, Feb -July 2001, which was held at L’Institut Henri Poincare, a very prestigious French research institute. This “Semester” was organized by the model of the semesters organized at MRI, Berkeley, for several decades now. There, twice a year a branch of mathematics is selected, and people who work in that particular field, from all over the world, have the opportunity to meet and discuss. In the same way, Statistics was the branch selected this year by the French CNRS. The guests were all leading figures in all Statistical domains, but the emphasis was put on mathematical statistics. During the Semester there were about 10 concurrent courses, some for the whole semester (5 months), some for shorter periods. These courses were addressed mainly to the peers in the profession and to some graduate students, in their finishing years. They all covered state of the art results in the particular field the course was on. In addition to that, there was a talk (sometimes every day, also by distinguished statisticians from all over the world: USA, Australia, Germany, The Netherlands, France, Russia, Germany, Israel, to give some examples. The atmosphere was very vibrant, and this Semester was a unique opportunity of meeting the best people in the world at one single location.

For this event, the CNRS launched a worldwide competition for 2 fellowships for young researchers. I was one of the lucky winners. The other one went to a young statistician at Princeton University. In the course of this semester I gave two talks, established research contacts, attended several courses and most of the talks, completed the methodological part of one paper and started and completed the methodological part of another one.”

Pi-Erh Lin was named Associate Chair earlier



this year. *Pi-Erh Lin* Dr. Lin is our undergraduate advisor, graduate director, and pioneer in distance learning — this year he developed and taught “Probability and Statistics for Sciences and Engineering”. He also taught a section of our new “Statistics for Biological Sciences” course as well as a “Statistical Topics” course for Engineering.

Presentations

Flori Bunea gave invited talks during the “Statistical Semester”, Paris, France (April -July 2001). She also gave invited talks at Bath University, Bath, UK: (June 2001), at the Royal Statistical Society annual meeting, Glasgow, UK (July 2001), and at ENSAI (The National Institute of Applied Statistics), Rennes, France (July 2001).

Doug Zahn and Dan Boroto (Psychology) again conducted their six-day Consulting Skills Course at the United Kingdom Office of National Statistics in London during 2000-2001. They also gave their first state-side offering of this course at the Statistical Analysis Branch of the Data Management Division of the National Immunization Program of the Centers for Disease Control in Atlanta in Summer 2001. Dr. Zahn also attended and presented papers at the American Statistical Associations Annual meeting in Atlanta in August and at the International Alliance for Learning Conference in January. Dr. Zahn also continues to meet weekly with the Doctoral Seminar in the FSU Department of Communication Disorders, bringing concepts from the Consulting Skills Course into this department.

Xufeng Niu attended the joint statistical meetings in Atlanta from August 5-9, 2001.

James C. Walker, Martin Kendal-Reed, Dianne Walker (FSU Sensory Research Institute), **Sandra B. Hall** (PhD candidate), and **Xu-Feng Niu** (Statistics), presented the talk “Odor Detectability Explicitly Defined and Measured” at a meeting of the Association for Chemoreception Sciences, Sarasota, Fla., April, 2001.

Kai-Sheng Song gave an invited talk “Fast and Efficient Multiple Frequency Estimation at the International Chinese Statistical Association 2001 Applied Statistics Symposium, Chicago.

Ian McKeague visited Universite Joseph Fourier, Grenoble, France, June-July 2001 as an invited researcher.

Myles Hollander was a keynote speaker at the 10th International Symposium on Applied Stochastic Processes and Data Analysis at the University of Technology, Compiegne, France (June 2001). He presented the talk “Modern Reliability Models: A Nonparametric Approach” based on joint research with Jayaram Sethuraman.

Anuj Srivastava gave talks at the Royal Statistical Society’s annual meeting in Glasgow, Scotland (July 2001), and at the International Conference on Image Processing in Thessaloniki, Greece (October 2001). He gave colloquiums at Brown University, Syracuse, Yale and at the University of Leeds, UK in October 2001. Dr. Srivastava is also an invited speaker at the International workshop on Computer Vision Beyond Visual Spectrum in Kauai (December 2001).



Myles Hollander, Nancy Flournoy, Janis Hardwick, Ingram Olkin, Glee Hollander, and Allan Sampson at the Chateau de Pierrefonds in Compiègne, France

Selected Publications

- Hollander, M. and Sethuraman, J.** "Modern Reliability Models: A Nonparametric Approach". Proceedings of the 10th International Symposium on Applied Statistics Models and Data Analysis, G. Govaert, J. Janssen and N. Limnios Eds. 1, 44-47, 2001, Compiegne, France.
- Hollander, M.** "A Conversation with Ralph A. Bradley", *Statistical Science*, 16, 75-100, 2001.
- Hollander, M., Laird, G., and Song, K.S.** "Maximum Likelihood Estimation In The Proportional Hazards Model Of Random Censorship". *Statistics*, 35, 245-258, 2001.
- Hollander, M., Laird, G., and Song, K.S.** "Inference For The Proportionality Function In The Random Censorship Model". *Journal of Nonparametric Statistics* (to appear), 2001.
- Peña, E., Strawderman, R., and **Hollander, M.** "Nonparametric Estimation With Recurrent Event Data". *Journal Of The American Statistical Association* (to appear), 2001.
- Huffer, F. W.** and Park, C. "A Test for Multivariate Structure". *Journal of Applied Statistics*, 27, 633-650, 2000. **Abstract:** We develop a technique for detecting hidden structure in multivariate data, and apply this to various examples including data, and time series data.
- Huffer, F. W.** and Lin, C.T. "Computing the Joint Distribution of General Linear Combinations of Spacings or Exponential Variates". *Statistica Sinica* (to appear), 2001.
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- McKeague, I. W., Gilbert, P., and Kanki, P.** "Omnibus Tests for Comparison of Competing Risks with Adjustment for Covariate Effects". *Biometrics*, 57, 818-828, 2001.
- Jagger, T., Elsner, J.B., and Niu, X-F.,** "A Dynamic Probability Model of Hurricane Winds in Coastal Counties of the United States", *Journal of Applied Meteorology*, 40, 853-863, 2001. **Abstract:** We develop and apply a model that uses hurricane-experience data in counties along the U.S. hurricane coast to give annual exceedance probabilities to maximum tropical cyclone wind events. The model uses a maximum likelihood estimator to determine a linear regression for the scale and shape parameters of the Weibull distribution for maximum wind speed. Model simulations provide quantiles for the probabilities at prescribed hurricane intensities.
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- Srivastava, A.** and Klassen, E. "Monte Carlo Extrinsic Estimators for Manifold Valued Parameters". Special Issue of IEEE Transactions on Signal Processing on Monte Carlo Methods (to appear), 2002.
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FSU-UF Joint Statistics Colloquium

In September 2001, the Biannual Florida State University-University of Florida Joint Statistics Colloquium was held at FSU and Alex Trindade gave the talk "Assessing the Performance of Burg Algorithms in Fitting Multivariate Subset Autoregressions." In March, 2002, Flori Bunea will be the speaker at UF. This is the third year of the colloquia series which fosters interaction between the two departments.

Alumni News

William D. Warde (MSc University of London 1965, MS FSU 1967, PhD Iowa State University 1972) is currently Professor & Chair, Department of Statistics, Oklahoma State University, Stillwater, OK, and has been a member of the OSU faculty since graduating from Iowa State in 1972. His research interests are in the areas of Sample Survey Methods, Cluster Analysis and Statistical Consulting. He recently completed a term as Chair of the OSU Faculty Council and Chair of Group III (Physical & Engineering Sciences) of the Graduate Faculty. He is Council Commissioner for the Cimarron Council, BSA, member of the Board of Directors of the University & Community Credit Union in Stillwater, and an active Rotarian. He is married to Dr. Mary Jane Warde, who is the Indian Historian for the Oklahoma Historical Society. They have two sons - Colin age 24 and Chris age 21. Colin recently completed a BS in Sociology and works at the Stillwater Public Library. Chris is an E4 in the US Army Reserve and works in sales.

Douglas H. Jones (MS 1972, PhD 1973) was appointed Director of MBA programs, Graduate School of Management (GSM), Rutgers Business School July 1, 2000. The Rutgers GSM has over 1400 part-time and 220 full-time MBA students. Rutgers GSM is ranked in the top 70 of international graduate business schools by Business Week Rankings.

Jim Lynch (MS 1972 PhD 1974) was recently appointed to a four-year term as Chair of the Statistics Department at the University of South Carolina. He and his wife Peggy became proud grandparents for the fourth time in July.

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Ram Tiwari (PhD 1980) took a 3-year leave of absence (effective August 2000) from the University of North Carolina at Charlotte and is serving as an Expert in Statistics and Coordinator for Statistics Methodology Grants at the Statistical Research and Applications Branch, National Cancer Institute, NIH, Bethesda, Maryland.

Gillian Mimmack (PhD 1985) is working at the University College of the Fraser Valley, Abbotsford, BC, Canada.

Shanti Gomatam (PhD 1995) "I am visiting the National Institute of Statistical Sciences (while still retaining my Assist. Professorship in the Dept. of Mathematics at the Univ. of South Florida, Tampa). I have been at NISS since August 2001 and expect to be here for 2 years. I'm very excited about being here and am having a great time! Hello to all, Shanti"

Shau-ming Wu (PhD 1996) is a postdoctoral scholar in the Division of Biology at the California Institute of Technology. In July of this year, he presented the talk "Cortical Representation of Auditory Space" at the Sloan-Swartz Summer Meeting in Tahoe, California. He will have a poster presentation at the Society for Neuroscience Annual Meeting in San Diego, California, on November 11th, 2001.

Thomas Minton (M.S. FSU 1997) received his Continuing Contract (i.e., Tenure) this Spring. He is an Associate Professor at Palm Beach Community College.

Scott Warrick (MS 1997) lives in Milton, Florida where he is a Staff Scientist at Applied Research Associates, Emerald Coast Division. At Applied Research Associates he has become a jack-of-all-trades. "This seems to happen at every job I get

sooner or later. I work at their Fort Walton Beach office near Eglin Air Force Base. I do a good deal of analysis work dealing with weapon effectiveness and target vulnerability. We develop software for the Dept of Defense to do analysis as well. Generally a person in our group is either an analyst or programmer, but for some odd reason I do both.

More recently I have been writing software for ATM machines. We acquired another company that does similar weapon/target work for the DOD. They have a commercial contract to develop software for ATMs. The ATM manufacturer recently purchased a new 'computer' so to speak and want software written for it. I am also the system administrator for our office here."

Scott also serves as a consultant for the Florida Department of Community Affairs State Energy Office, and he produces the annual Florida Motor Gasoline and Diesel Fuel Report (http://www.dca.state.fl.us/fhcd/gas_report/) which he has been creating for the State of Florida since 1993.

Karla (Mutuc) Blaginin (MS 1998) and her husband Dmitriy had a baby boy, Maximillian Blaginin, on September 5, 2001. Karla lives in Georgia and is an independent contractor (Maxim Consulting) for the Justice Research Center (formerly part of the Florida Department of Juvenile Justice).

Michiko Ishiyama (MS in Statistics, PhD in Music 2001) is working at Infometrics in Dunwoody, Georgia. In May of this year she became Michiko Ishiyama Wolcott (her husband's name is Scott). Michiko also had a book published this year, Piano, the Instrument: An Annotated Bibliography. Information about the book can be found at <http://www.scarecrowpress.com>.

Alumni News



Max Linn

Max Linn (MS 1983, PhD in Education History 2000) has had a long relationship with our department both as a student and as an instructor. From 1994 to 2001 he worked with us as

an instructor of many of our undergraduate service courses. In May of this year, he left his position of Assistant in Statistics to pursue some perhaps loftier goals. He is currently working with various publishers who are interested in publishing a new teaching technique he developed here at FSU: the use of web-based case studies in which students use statistics to solve crimes and mysteries. Max is also an avid writer of science fiction short stories which he is also thinking of publishing. In his spare time, Max is teaching a course for the College of Education.

Shaojun Zhang (PhD 2001) won the 2000-2001 Ralph A. Bradley Award for the best PhD dissertation in Statistics.

"I have benefited a lot from my education at the department. After being here for three months, I already realized how fortunate I was to study under a group of highly competent professors. I am much better prepared for teaching and research than many others. This award greatly encourages me to continue.

My education is a result of efforts from every faculty member. I deeply appreciate the willingness of all faculty members to share their knowledge without reservation.

Comparing Tallahassee with Singapore, there are similarities as well as differences. The differences are apparent in people, food, language, weather and so on. To my surprise, there are many familiar things. Here, we have McDonald's, Pizza Hut, even Burger King for food, Exxon-mobile for gas (too bad, no BP, I miss the green sign), GE for household products, and numerous US TV programs, including Wheel of Fortune, 20/20, 60 Minutes, Friends, West Wing, and many more. Once you settle down in front of a TV, you don't feel you are outside US. It is amazing that they almost import the whole US culture. Singapore is a nice island city to visit. Even though it is highly modernized and pretty much westernized, it still has many places that uniquely belong to the east and are worth visiting."



Shaojun Zhang

Recent Graduates

PhD

Blake Whitten, Formulations of Missing-Data Models and Likelihood-Based Inference, directed by I. McKeague, 2001. Blake is currently a Visiting Assistant Professor at the Department of Statistics, University of California, Santa Barbara. "My transition to a new university is keeping me busy! I'm teaching a variety of graduate and undergraduate courses this year, including Time Series, Applied Statistics, Introductory Business Statistics, and Statistical Computing. In my 'spare time' I work on my Missing-data research."

Shaojun Zhang, Building Tracking Portfolios and Modeling Risk Management Programs, directed by Xufeng Niu and James Ang (Finance) 2001. Shaojun is currently an Assistant Professor at the Division of Banking and Finance, Nanyang Technological University, Singapore.

Marc Loizeaux, Bayesian Inference for a Spatial Cluster Model Via Perfect Sampling, directed by Ian McKeague, 2001.

MS

Ayesha Delpish (Summer 2001). Ayesha is currently enrolled in our PhD program.

Abdellahi Meneya (Summer 2001). Abdellahi works for the Centers for Disease Control, Atlanta, Georgia.

Kristen Hill (Spring 2001). Kristen now works for Florida Medical Quality Assurance, Inc., Tampa, Florida.

Ryan Petska (Spring 2001). Ryan is employed by Ernst & Young, Washington, DC.

Brian Thomasson (Spring 2001). Brian is currently enrolled in our PhD program.

(Basu, continued from page 1)

day to evaluate my potential as a research scholar - I think that I passed the test. Dr. Basu taught for many years at the Indian Statistical Institute. He held visiting positions at several places in the US before coming to Florida State University in 1975, just after Richard Savage left for Yale University. The presence of Frank Proschan and Deb Basu gave our department top ratings. He was a teacher *par excellence*; it was always a delight to hear him lecture and to see the subject effortlessly unfold before your eyes. He would cut out the unnecessary details and go straight to the heart of the matter and show how it falls out from simple clear thinking. He loved his students and in turn the students were devoted to him. He retired from Florida State University in 1990. He was a *professor emeritus* at Florida State University and at the Indian Statistical Institute.

This whole obituary is adapted from J. K. Ghosh's tribute to Dr. D. Basu in the journal *Sankhya*. In each of his three stages of intellectual development as a statistician, Basu made outstanding contributions. The Basu theorems on independence of a complete sufficient statistic and an ancillary statistic are nearly fifty years old but still a delight to read. Along with the Neyman-Pearson Lemma, Cramer-Rao Inequality and Rao-Blackwell theorem, they remain the core of a first course in classical statistical inference. Basu was interested in conditional independence throughout his life. No wonder he found it easy to accept Cox's partial likelihood even before its frequency properties were well understood. He would also be remembered for his work in later years -- the beautiful counter-examples, foundational essays on likelihood and information and radical commentaries on theory and practice in survey sampling from a Bayesian point of view, imbued with a sharp common sense. His critical essays, along with those of Royall and others, brought about an awareness of absurdity of certain aspects of design baseanalysis and a search for methods which make sense for any given data as well as have good frequency properties. That search goes on. Basu had little faith left in classical statistics. He was a Bayesian from around 1968. He believed that there is usually a lot of information in the data and it is the business of the statistician to extract it.

He was a fellow of the Institute of Statistical Mathematics and an elected member of the International Statistical Institute.

Basu was an expert bridge player. He could use several esoteric systems of bidding. His post analysis of a bridge game were always illuminating. Basu loved trees, flowers and children. Because of his love of children, his family wanted his friends to contribute to a charity for children rather than bring flowers to his memorial meeting. He was passionately interested in gardening throughout his life.

Basu is survived by his daughter Monimala Basu of Atlanta, Georgia and son Shantanu Basu of London, Canada. His wife Kalyani of Kolakta passed away within a short time after his demise.

Dacheng Liu's (PhD candidate) Summer Experience: "From May to July I was doing an internship for the AIDS research group at Frontier Science & Technology Research Foundation (FSTRF), located in Boston, Massachusetts. Dr. Hulin Wu, an alumnus from FSU (PhD 1993), is currently head of this group. In recent years, this group has proposed several models for HIV dynamic by applying differential equations and mixed-effects models. My work in FSTRF was mainly studying HIV dynamics from a point of view of time series models. Specifically, mixed-effects state space models were investigated to model both population and individual trajectory of HIV viral loads. This result, hopefully, will further our knowledge of HIV dynamics, and moreover, help us to develop a control system of treatments in medical practice. During my stay in Boston, I also attended several workshops and colloquiums held by Harvard Public Health School. In conclusion, I enjoyed my work at FSTRF very much, and believe that experience would greatly help me on my PhD dissertation and future research.



Dacheng in Edinburgh

After the internship, I spent a month in United Kingdom with my wife Yan Yang. We traveled in the northwestern Scotland, and the Isyle of Skye was our destination. I loved the High Land, but had difficulty of driving on the right. The weather was very nice and cool. I expected a lot of rains before I headed for UK. But to my surprise, it was sun shine everyday, just like in Florida. Anyway, it is always a pleasure to stay in cool weather in summer, especially for a Tallahassee resident."

Duane and Marge Meeter spent 20 days in September touring villages in France with a Rick Steves' tour. "We cycled 20 miles along the Loire, and canoed a half-day on the Vézère river and all-day in the Gorges du Tarn. We stayed in small hotels or pensions, and carried our own baggage. We were the oldest people on the tour but definitely not in the worst shape.

The food was fantastic, and meals which we ate on our own were both excellent and reasonable. I ate at least 20 cheeses and *tasted* 40 wines. At one in we were allowed to order anything on the menu for two nights (four courses).

The French people were very supportive about the attack. On the 14th we attended a public memorial observance in Sisteron; at the end we all joined hands for three minutes of silence."