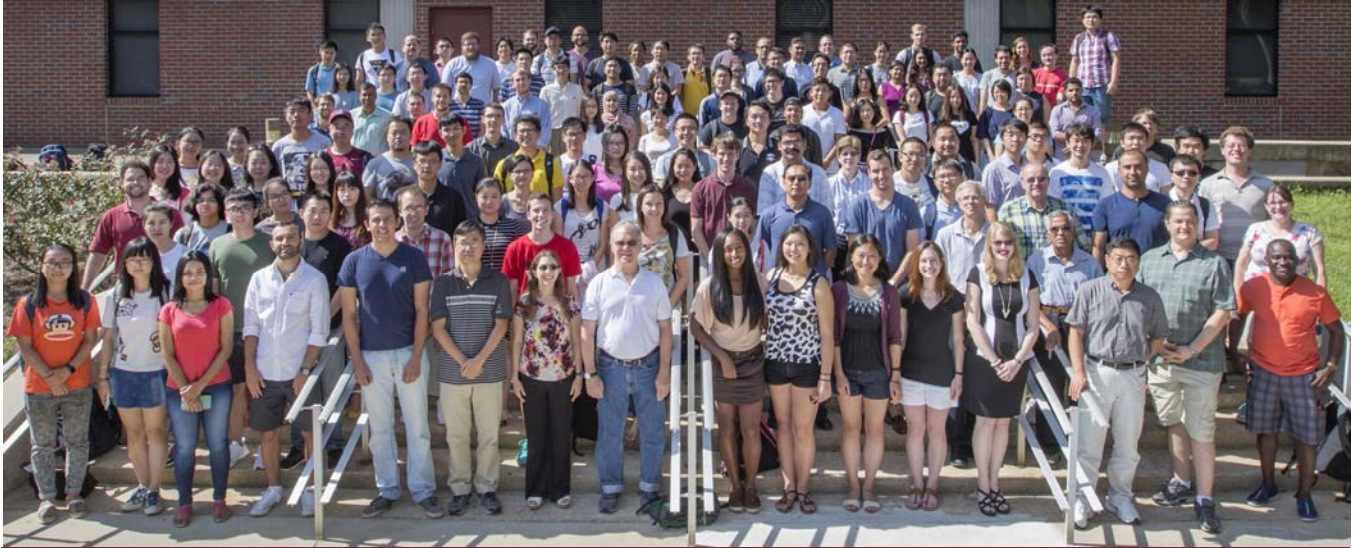




FLORIDA STATE UNIVERSITY DEPARTMENT OF STATISTICS

NEWSLETTER FALL 2016



Department of Statistics faculty and graduate students, Fall 2016



Xufeng Niu

Message from the Chairman

The 2015-2016 academic year has been exciting. I am happy to share with you some new developments in our department. Sixty-five new students joined the department in this fall and the total number of

graduate students enrolled in our graduate programs is over 180, which is the largest in our college and a new record in our department history. The college began to distribute OPS funding (TA support) this year based on Student Credit Hours and number of graduate students of each department. We received \$100,000 extra in TA funding this year compared to the amount of last year.

The Statistical Data Science major program started in the Fall of 2015 and attracted over 10 new students this year. With great efforts from Elizabeth Slate and other faculty members, the department is beginning to establish collaborations with several banks and companies, including Bank of America, Capital One, Wells Fargo, and Sanofi. For example, in the spring, three teams from our department participated in the Data Science Modeling Competition organized by Capital One, and one of them entered the final five. Capital One also hired two students from our department as summer interns.

This fall we are extremely happy to welcome two new colleagues to our department, definitely increasing the strength of our programs. Dr. Jonathan R. Bradley received his Ph.D. in Statistics from the Department of Statistics at Ohio State University in 2013. He was a Postdoctoral fellow at the University of Missouri from 2013 to this year. Dr. Bradley's research areas include spatial and temporal data analysis, model selection, Bayesian statistics, high-dimensional data analysis, and stochastic processes. Dr. Yun Yang received his Ph.D. in Statistics from the Department of Statistics at Duke University in 2014. He was a Postdoctoral fellow at the University of California Berkeley from 2014 to this year. Dr. Yang's research areas include High-dimensional statistics, Bayesian statistics, non-parametric statistics, Markov chain Monte Carlo, and scalable computation in statistics.

This year is a record year for our faculty receiving research grants and contracts, with the total amount coming to almost 2 million dollars in the next three years. The new awards are from NSF, National Cancer Institute, and other agencies.

Last, but not least, the new EOAS building groundbreaking was held on October 27th. With the expectation of Oceanography moving out of the Rogers building in 2018, Dean Huckaba asked our department to form a committee and consider how to use the whole building and what renovations should be done. Our department may grow more quickly with the space problem solved.

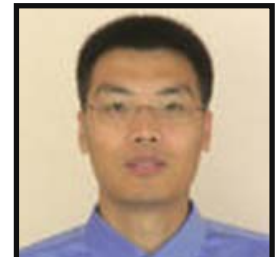
ABOUT OUR FACULTY



Xin Zhang

Assistant Professor **Xin (Henry) Zhang** received two National Science Foundation awards as Principal Investigator. The first project is on "Tensor Envelope Model -- a new approach for regressions with tensor data" for a total funding support of \$103K over a three year period (Sept. 2016 -- Aug. 2019). The second project is collaborating with Assistant Professor **Qing Mai** on "Efficient Discriminant Analysis Through Parsimonious Probabilistic Models" for a total funding support of \$414K over a three year period (July 2016 -- July 2019).

Associate Professor **Yiyuan She** received a new NSF grant entitled "Scalable Nonconvex Optimization with Statistical Guarantees for Information Computing in High Dimensions."



Yiyuan She

Ron and Carolyn Hobbs Endowed Chair and Pfeiffer Professor **Debajyoti Sinha** received an NIH grant from the National Cancer Institute with the project title "Analyzing Complex Cancer Studies With Skewed Responses."



Debajyoti Sinha

Professor **Anuj Srivastava** is working on a new NSF project on "Geometrical and Statistical Modeling of Space-Time symmetries for Human Action Analysis and Retraining."

Professor **Eric Chicken** and Assistant Professor **Antonio Linero** have a grant from the US Army entitled "Functional Analysis Tools (FATS)."



Debdeep Pati

Assistant Professor **Debdeep Pati** received a new NSF grant entitled "Collaborative Research: Scalable Bayesian Methods for Complex Data with Optimality Guarantees."

Associate Professor **Adrian Barbu** was awarded a new subcontract from UCLA for the DARPA project "Learning Homogeneous Knowledge Representation from Heterogeneous Data for Quantitative and Qualitative Reasoning in Autonomy."



Wei Wu

The FSU birdsong research group published a series of STEM Educational videos on the CPALMS website during Summer 2016. CPALMS is an online toolbox of information, vetted resources, and

interactive tools that helps K-12 educators effectively implement teaching standards. It is the State of Florida's official source of the K-12 educational standards and course descriptions. The videos were featured at the Middle School Math & Science Integrated Institute this July. The research group

includes Associate Professor **Wei Wu** and three faculty members in the Neuroscience Program (Frank Johnson, Richard Bertram, and Rick Hyson). The leading video is available at <http://www.cpalms.org/Public/PreviewResourceUpload/Preview/%20155991>.

Birdsong Series: STEM Team Collaboration
Resource ID#: 155991 Primary Type: Perspectives Video: Expert

Researchers Frank Johnson, Richard Bertram, Wei Wu, and Rick Hyson explore the necessity of scientific and mathematical collaboration in modern neuroscience, as it relates to their NSF research on birdsong.

7 Aligned Sta Attached



Jonathan Bradley

Two new faculty members joined us in August 2016 as Assistant Professors: **Jonathan Bradley** and **Yun Yang**.

Jonathan Bradley received a Ph.D. in 2013 from The Ohio State University. He held a three year postdoctoral position at the NSF-Census Research Network and held a graduate research associateship sponsored by the Jet Propulsion Laboratory as a graduate student. His current research projects involve analyzing big multivariate spatio-temporal data; distribution theory for dependent data, and multiscale spatial analysis.



Yun Yang

Yun Yang received a Ph.D. from Duke University in 2014. After graduation, he held a postdoctoral researcher position at the Electrical Engineering and Computer Sciences department at the University of California, Berkeley. His main areas of research interest include machine learning, scalable Bayes inference and theoretical foundations of high dimensional problems. His Ph.D. work focuses on developing Bayesian methods for high-dimensional nonparametric regression, high-dimensional classification, and quantile regression. During his postdoc, Yang developed efficient algorithm for large-sample nonparametric regression, and studied the convergence rate of Markov chain Monte Carlo algorithms for high-dimensional Bayesian variable selection. Generally, he is interested in developing theoretically-sound statistical and computational methods for solving applied machine learning problems by borrowing strength from both Bayesian and frequentists' ideas.



From left to right (back row): Adrian Barbu, Fred Huffer, Jonathan Bradley, Robert Clickner, Xin Zhang, Yun Yang

From left to right (front row): Wei Wu, Jinfeng Zhang, Debajyoti Sinha, Eric Chicken, Elizabeth Slate, Jayaram Sethuraman, Antonio Linero, Xufeng Niu, Debdeep Pati, Qing Mai

NEW GRADUATE STUDENTS 2016-2017

Fahad Al Amer	Jingxiong Guo	Yun Lin	Linyu Shi	Hongyu Wu
Mona Alzanbagi	Jie Hao	Shanshan Liu	Renwen Shi	Yiqi Xu
Herman Autore	Wenqi Hu	Xueying Liu	Shao Tang	Zishen Xu
Chao Chen	Ding Jiang	Zehua Liu	Hannaw Thaw	Boning Yang
Chung-Kuang Chen	Yaqi Jing	Yi Luo	Alexandra Thayer	Shuxian Yang
Yang Chen	Thomas Johansen	Roland Moore	Seungha Um	Disa Yu
Bryan Cicale	Kanchanah Kannathass	Zachariah Neville	Boshi Wang	Jingjie Yu
Marissa Davis	Donggu Kim	Shinian Qu	Chenran Wang	Lili Yu
Jose Diaz	Kiwook Kim	Ryan Quigley	Mengshi Wang	Zhiyuan Yu
Junliang Du	In Koo Lee	Lexi Rene	Xianbin Wang	Elizabeth Yuu
Feng Fan	Keqiao Li	Travis Seeger	Yachen Wang	Shenghui Zhang
Sneha Govande	Xutong Li	Wright Shamp	Mingxue Wei	Wenhao Zhang
Marie Griffith	Ying Li	Jaihui Shen	Changkui Wu	Dongrui Zhong
				Qingying Zong

ALUMNI UPDATES

[Click here to send us your alumni updates](#)

Dr. Ram Tiwari (Ph.D. 1980) is the new director for Division of Biostatistics, Center for Devices and Radiological Health (CDRH), FDA, effective Jun 27, 2016. The position was vacated due to the retirement of **Dr. Greg Campbell**, another alumnus of the FSU Department of Statistics. (Ph.D. 1976).

Tommy Minton (M.S. 1997) co-authored an article published in International Forum of Teaching and Studies Vol. 12 No. 2, 2016, entitled "Comparison of Course Completion Rates in Intermediate Algebra Based on Term Modality."

Alexia Athienitis (M.S. 2001) is in her third year of teaching at the University of South Florida.

Dr. Davis F. Gates, (B.S. 1991) is a Director of Late Stage Development at Merck, Inc., and has been assigned to oversee infectious diseases clinical trials in addition to his oversight of a large

safety clinical trial in the Respiratory therapy area.

Ivo Dinov (M.S. 1998) was chosen as an *Elected Member* of the International Statistics Institute (ISI) in 2016, and became Associate Director for Education and Training of the Michigan Institute for Data Science (MIDAS) in 2015.

Glen Grimme (M.S. 1972) recently retired from SAS Institute in the Raleigh/Research Triangle Park area of North Carolina, where he was providing global technical and marketing support to SAS systems, engineers, SAS users, and JMP users in the implementation and installation of SAS and JMP solutions for business intelligence, data mining, data analysis, quality control, drug development, life sciences and cloud computing applications for 20 years. Glen is now an independent contractor specializing in the implementation of SAS and JMP solutions. He is a

Services Consultant for the visualization of quantitative information technology.

Ran Xue (M.S. 2015) is an IT Analyst at the University of Florida.

Will Shepherd (M.S. 2012) is a Branded Content Strategist at Google in charge of optimizing influencer marketing strategies for advertising campaigns sold to YouTube.



Will Shepherd

(Continued on page 5)

(Continued from page 4)

Edward Nevius (Ph.D. 1975) retired from the Office of Biostatistics at FDA's Center for Drug Evaluation & Research.

Shaojun Zhang (Ph.D. 2001) was promoted to Associate Professor in July 2016. Shaojun works at The Hong Kong Polytechnic University in the School of Accounting and Finance.

Jiang Shao (Ph.D. 2015) is now working at Gilead in California.

Jelani Wiltshire (Ph.D. 2010) is a Quantitative Associate in Credit Risk at Wells Fargo.

Raphael Fraser (Ph.D. 2015) is a 2016 Joint Statistical Meeting Student Paper Competition Award Recipient, awarded on behalf of the Social Statistics Section (SSS), the Government Statistics Section (GSS), and the Survey Research Methods Section (SRMS) of the American Statistical Association.

Tiffany Schleeter (Ph.D. 2015) is a data scientist at Deloitte in Virginia and was selected by the University of Central Florida (where she received her bachelor's degree) for one of their 30 under 30 awards: <https://ucfalumni.exposure.co/30-under-30>



Tiffany Schleeter

RECENT GRADUATES

M.S. Spring 2016

Elizabeth Allgood

Brittney Benzio is working as a data analyst for State Farm.

Lindsay Brantley is working as a data analyst for State Farm.

Yihan Cao

Shan Cong

Melaine de Oliveira is now in our Ph.D. program.

Yifang Deng

Collin Dougher is working as a Forecast Analyst for Arise Virtual Solutions.

Yifan Du

Jemica Gumbs is working for the Department of Education, U.S. Virgin Islands.

Guanyu Hu is now in our Ph.D. program.

Yuting Lei

Mihir Mehta is working as a Marketing Statistician at Oriental Trading Company in Nebraska

Miao Peng is now in our Ph.D. program.

Amira Qumseya

Letryce Scully

Jie Shi

Inho Son

Youngjo Sun

Albert Steppi is now in our Ph.D. program.

Lingxiu Su

Xin Sui is now in our Ph.D. program.

Lizhe Sun is now in our Ph.D. program.

Zhiji Tang is now in our Ph.D. program.

Jing Wang

Pengpeng Wang is now in our Ph.D. program.

Tanqing Wang

Binhua Wu

Jiaying Wu

Yichun Wu

Zhixing Xu is now in our Ph.D. program.

Yankai Xue

Shanshan Zhang

Shuang Zhou is now in our Ph.D. program

Dingding Zu worked as a data analyst at North Highland.

M.S. Fall 2016 (expected)

Jie Li

Yingzhi Lu

Emily White

Fengyiwen Zeng

Xin Zhang

Hanxiao Zhu

Ph.D. Spring 2016

Ryan Scolnik

Affiliation: 6sense, California

Thesis: "Predictive Accuracy Measures for Binary Outcomes: Impact of

Incidence Rate and Optimization Techniques"

Professor: Dan McGee and Elizabeth Slate

Kaixian Yu

Affiliation: MD Anderson Cancer Center, Texas

Thesis: "Statistical Methods for Big Data and Their Application in Biomedical Research"

Professor: Jinfeng Zhang

Qiaoya Zhang

Affiliation: Liberty Mutual Insurance

Thesis: "Sparse Generalized PCA and Dependency Learning for Large-scale Applications Beyond Gaussianity"

Professor: Yiyuan She

Shuguang Zhang

Affiliation: Wells Fargo

Thesis: "Time-Varying Mixture Models for Financial Risk Management"

Professor: Xufeng Niu

Ph.D. Summer 2016

Ajay Gupta

Affiliation: Bank of America

Thesis: "Parameterized Principal Component Analysis"

Professor: Adrian Barbu

Cherry Gupta

Thesis: "Bayesian Inference and Novel Models for Survival Data with Cured Fraction"

Professor: Debajyoti Sinha

Ph.D. Fall 2016 (expected)

Hissah Alzahrani

Affiliation:

Thesis: "Multivariate binary longitudinal data analysis"

Professor: Elizabeth Slate

Josue Anaya

Thesis: "First Steps Toward Image Denoising under Low-light Conditions"

Professor: Adrian Barbu

Glenna Gordon

Affiliation: FSU College of Nursing

Thesis: "Intensity Estimation in Poisson Processes with Phase Variability"

Professor: Wei Wu

Xue Huang

Affiliation: Hotwire.com, California

Thesis: "Sparse Feature and Element Selection in high-dimensional Vector Autoregressive Model"

Professor: Xufeng Niu and Yiyuan She

2016 FLORIDA CHAPTER MEETING OF ASA

The Department of Statistics at the Florida State University successfully hosted the Annual Meeting of the American Statistical Association's Florida Chapter on Feb. 12-13, 2016. About 80 faculty, students, and statistical practitioners from various institutions and industry companies attended the meeting. There were multiple sessions on invited and contributed oral presentations, poster presentations, and panel discussions, which covered a wide range of topics in statistics. In particular, **Barry Nusbaum**, ASA President-Elect, made a plenary presentation titled "And Then I Told the President: The Use of Statistics in Environmental Decision Making".



Andrey Skripnikov (UF), Tommy Wiesen (UG), Babette Brumback (President of FLASA and professor at UF), Kumaresh Dhara (FSU), Tracy Gunter (FSU), and Yuhang Liu (FSU)

The meeting had a competition for best poster presentation awards. 22 students participated in the competition and 5 of them won the awards. Two of the winners are our current PhD students **Kumaresh Dhara** and **Yuhang Liu**, and one is our graduated M.S. student **Tommy Wiesen** (now in U. Georgia). Congratulations to all of them!

SETHURAMAN HONORED AT CONFERENCE

The Latent Variables 2016 Conference was held at the Department of Statistics of the University of South Carolina during October 12-14, 2016. This conference was to honor Professor **Jayaram Sethuraman's** contribution to foundational issues in latent variables research, mainly his stick breaking representation of the Dirichlet Process. Our alumni Dr. Edsel Pena and Dr. Robert Taylor were banquet speakers and presented talks about Sethu's life and their interactions with him.



Group Photo from the Latent Variables Conference courtesy of Geeia Habing from U. South Carolina

STATISTICAL DATA SCIENCE PRESENTATIONS

Our Statistical Data Science program has been working to bring in external speakers to give presentations on professional skills, careers, internships, and job opportunities in both informal (lunch and learn type presentations) and formal presentations. Our list of external speakers from 2016 is below. If you or your company are interested in doing a presentation in the future, please email mcghee@stat.fsu.edu

Barry Nussbaum (Chief Statistician at the EPA and President-Elect of the American Statistical Association)

Zhenming Shun (Associate Vice President at Sanofi) and Glen Laird (Ph.D. 2000 now at Sanofi)

Zhen Yan (Senior Analyst at Liberty Mutual)

Bingyi Yang (Director of Data Science Division at Capital One)

Bill Kahn (Senior Vice President, Consumer Behavior Modeling at Bank of America)

Rong Zhou (Sr. Director of Biostatistics at Medpace)

George Michailidis (Director of the Informatics Institute at the University of Florida)

STAFF NEWS

Alyssa White, our Administrative Assistant, became engaged at Pensacon in February 2016 to Joseph "Joey" Gibbs. Joey enlisted the aid of Doctor Who actors Peter Davison and Terry Molloy to stage a photoshoot for the proposal. After Alyssa accepted the proposal, the chairman of Pensacon, Mike Ensley, approached the newly engaged couple and offered to host their wedding at Pensacon 2017 which they both accepted. More information can be found at <https://www.theknot.com/us/alyssa-white-and-joseph-gibbs-feb-2017>.



STUDENT ACCOMPLISHMENTS & AWARDS

Thomas Johansen (Ph.D. student) held a summer internship at Pacific Northwest National Laboratory in Summer 2016. One of his projects was building a data visualization tool for the Department of Defense that allows the user to explore a terrorism database on an interactive world map.

Hanning Li (Ph.D. student) spent the summer of 2016 working as an intern for the Department of Marketing at PNC in Pittsburgh, PA.

Libo Wang (Ph.D. student) worked as an intern for Liberty Mutual in Summer 2016.

Jie Li (M.S. student) had a summer internship as a data analyst at Boehringer Ingelheim in 2016.

Qiusheng Chen (Ph.D. student) had an internship at Sanofi working under the supervision of **Dr. Glen Laird**, Director of Data Science, and Ph.D. grad from 2000. Qiusheng worked on assessment of adaptive signature design and Koch's procedure via simulation.

The Graduate Modern Statistics Club (GMSC) was started in Fall 2016 by Associate Professor **Yiyuan She**, Professor **Xufeng Niu** and graduate students **Zhifeng Wang** and **Shao Tang**. The GMSC focuses on modern statistics including big data computation, statistical machine learning, high dimensional statistics, modern optimization theory and other exciting research areas. The club is open to any graduate student and holds weekly meetings in the department.

Kumaresh Dhara (Ph.D. student) received a FLASA Chapter Award at the Florida Chapter of the American Statistical Association Annual Meeting in February, 2016. He also received a Boyd Harshbarger travel award for attending the Southern Regional Council of Statistics, 52nd Summer Research Conference in 2016.

Marie Griffith (Ph.D. student) is a recipient of the Ronald E. McNair Fellowship for 2016-2017.

Libo Wang (Ph.D. student) won the 2016 ENAR distinguished student paper award and presented at the ENAR Spring meeting in Austin, Texas.

Guanyu Hu (Ph.D. student) received first prize for the best graduate student paper award at the IBS- China Conference in 2016.

Danisha Baker (Ph.D. candidate) was inducted as a Seminole Torchbearer on November 3, 2016. The Seminole Torchbearers is an organization comprised of Florida State University students and alumni who are exceptional leaders. Nominees must have demonstrated commitment to enhancing student life both on campus and in the surrounding community and should have a desire to continue their service and support of FSU as alumni..



Danisha Baker

Danisha was also selected as a PIE (Program in Instructional Excellence) Associate for 2016-2017. This program helps to improve teaching across campus by helping departments enhance their graduate student preparation programs and establish interdisciplinary connections and community among graduate students at FSU. This program is designed to be an outreach to academic departments and programs in support of individual departmental graduate student development.

STUDENT ACCOMPLISHMENTS & AWARDS

The Yongyuan and Anna Li Award

The Yongyuan and Anna Li Award was created in 1997 in memory of Yongyuan Li, one of the Department of Statistics' promising Ph.D. candidates, who died from cancer. The Yongyuan and Anna Li Award is given each year to the graduate student who delivers the best student colloquium. The award includes a cash prize and recognition on a plaque in the Department of Statistics' Commons Room. This year's Yongyuan and Anna Li Presentation Award was presented to **Ryan Scolnik**. Ryan received \$300 as part of the award.



The Ralph A. Bradley Student Award

The Ralph A. Bradley Award is for a Ph.D. graduating student who has demonstrated outstanding achievement. The award includes a cash prize and recognition on a plaque in the Frank Wilcoxon Memorial Reading Room. This year the prize goes to **Kaixian Yu**.

Best Graduate Teaching Assistant Award

Each year the Department of Statistics selects two students for the Best Graduate Teaching Assistant Award. These winners receive a one-time extra \$200 travel allowance for attending conferences and presenting papers. This year's winners were **Veronica Bunn** (Ph.D. candidate) and **Megan Duncan** (Ph.D. candidate).

Best First Year Student Awards

Each year, we give annual awards to those students (now in their second year) who did the best in the first-year courses in applied, theoretical, and computational statistics. This year these awards go to: **Piyali Basak** and **Bradley Hupf** (in Applied Statistics), **Xiaoyang Guo** and **Hwasil Lee** (in Theoretical Statistics), and **Wenjing Wang** and **Yuqing Pan** (in Computational Statistics). These winners will receive a one-time extra \$200 travel allowance to attend conferences and present papers during their studies in our department (usually in the third through fifth years).

Join us on Facebook: <https://www.facebook.com/Florida-State-University-Department-of-Statistics-132451546872179/?fref=ts>



FSU STATISTICS DINNER @ JSM 2016

Every year, we try to gather as many of our former and current members of the department as possible to attend a reunion dinner during JSM. To the right is one picture from this year's dinner. If you attended the dinner and took photos that you'd like to share with us, please send to mcghee@stat.fsu.edu.



DONATION FORM

We would like to thank those who generously gave their support this year. In 2016 we received contributions from John J. Beauchamp (M.S. 1963, Ph.D. 1967); Glenn Eschrich (B.S. 1966); Charles E. White (M.S. 1986). Michael Weingarten (M.S. 1977), and Franklin Harrison (B.S. 1991). Corporate donations came from Merck Partnership for Giving, and the Pfizer Foundation Matching Gifts program.

If you would like to donate to the department, you may contribute to one of our already established funds or by contacting Nancy Smilowitz, **Assistant Dean, Advancement and Alumni Affairs**, to discuss how to establish a named endowment or to find more information about making a tax-deductible gift. Nancy can be reached at :

Office 850-644-9324, Cell 850-294-1034, Fax 850-645-3258, Email: nsmilowitz@foundation.fsu.edu

The **Statistics General Development Fund** was created to provide general support for our department in a variety of areas.

The **Ralph A. Bradley Student Award** is named for our department's founder, Dr. Ralph A. Bradley. The award is presented to a graduating Ph.D. student who has demonstrated outstanding achievement, culminating in the presentation of the best doctoral dissertation of the year.

The **Yongyuan and Anna Li Fund** was established by Anna Li in memory of her husband Yongyuan Li who died from cancer on April 7, 1997. The award consists of a cash prize and certificate and is presented to the graduate student who presents the best student colloquium each year.

The **Ronald and Carolyn Hobbs Endowed Fund** in Statistics was established by Ron Hobbs (M.S. '67) and his wife Carolyn. The fund was used to create an endowed chair position which Dr. Debajyoti Sinha now holds.

Florida State University Department of Statistics Gift Form

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For more information please contact

Nancy Smilowitz in the College of Arts & Sciences

(850)-644-9324

Please send me information on gift planning (bequests, endowed funds, annuities, trusts, etc.).

Form 99SDDM

Enclosed is my/our gift of \$1,000 \$500

\$250 \$100 Other \$ _____

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My employer's matching gift form is enclosed.

For credit card payment please complete the following information: Visa Mastercard

Card Number: _____

Expiration Date: _____

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For the Ralph A. Bradley Award Fund

For the Yongyuan & Anna Li Award Fund

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