

Volume 1, Issue 1

Spring 2009



WESTERN MICHIGAN UNIVERSITY

Department of Statistics

Newsletter

Welcome to the first edition of our newsletter. We hope to produce two or three issues per year. We are sending this electronically to those alumni we have email addresses for. We also posted a pdf version at:

www.stat.wmich.edu/slab/Newsletter.

If you would like to receive a hard copy, please let us know, we will add you to our mailing list. Our newsletter will focus on the

activities of our faculty, students and alumni.

This issue will highlight one of our new faculty members, describe two current consulting contracts, hear from Mr. Heun about Business Statistics, we will introduce you to two PhD students who are preparing for their defenses and catch up with three of our alumni. We begin with a few words from our chair.



Everett Tower

Notes from the Chair



Dr. Magdalena Bugaj
Professor and Chair

Welcome to the first issue of the Department of Statistics newsletter.

Graduate programs in statistics at Western Michigan University were created 40 years ago.

Since that time our students have graduated every year. At Joint Statistical Meetings every year there are more and more graduates from our programs giving talks, presenting posters, running workshops or panel discussions or just attending the conference. We are very proud of this. Since our former students would like to know how our Department is doing we decided to publish a newsletter that could be emailed to each of you.

We will be writing about the department – our faculty, students, programs and initiatives, but we will also welcome information from our alumni – your new jobs, achievements or anything else you would like to share with us.

This fall we had so much to be proud of – we got back two faculty positions that were lost within the last few years – Dr. Rajib Paul, joined our department in August and Dr. Jeff Terpstra joined us in December.

With our heads finally above the water we have renewed energy to work on different ideas that will take our programs to the new heights.

It has always been my pleasure to be part of the department as a faculty member and now as chair. In my new role I certainly have hands full with administrative responsibilities, but my heart is still in teaching and research.

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- Editors: Joe McKean and Cheryl Peters
- Managing Editor: Therawat Wisadrattanapong
- Email comments, suggestions or letters to cheryl.peters@wmich.edu

Faculty Spotlight

In each issue we will highlight one faculty member.

Dr. Rajib Paul

A Buckeye in Michigan

I am the youngest faculty member in the Department of Statistics at Western Michigan University. I am proud to be surrounded by so many smart and motivated researchers here.

I was born in Calcutta, a wonderful metro in the eastern part of India. Yes, your guess is correct, this city is Dominique Lapierre's "City of Joy". I received my Bachelors degree in Statistics from Calcutta University followed by a Masters degree in Statistics from Indian Institute of Technology, Kanpur. I joined the Department of Statistics at The Ohio State University as a graduate Student in 2002, where I spent six enjoyable years of my student life. My advisor was Prof. Mark Berliner. My PhD thesis is concerned with three problems: (1) Bayesian Change Point

Analysis for Mechanistic Modeling, (2) Geometrically Ergodic Diffusion Based Algorithms for Gaussian Models with Non-linear Mean Functions, and (3) Assessing Convergence and Mixing of Markov Chain Monte Carlo via Stratification.

In modeling real world problems, posterior distributions arising from combination of likelihoods and priors are analytically intractable and hence, we usually rely on Markov Chain Monte Carlo simulation. My research interests include developing algorithms for Bayesian computation and studying convergence properties of these algorithms. I am interested in applied interdisciplinary research in climate change and global warming issues, glaciology, the carbon cycle and environmental and public health problems. I have also collaborated with Prof. Noel Cressie on model-

ing pathways of human exposure to arsenic.

After coming here I have heard several times that we are on the wrong side of lake, now that I have spent my first winter in Michigan, I understand.



Rajib Paul

Course Spotlight

Stat 2160 Course

Business Statistics - Stat 2160 is the Statistics Department's largest service course. We have endeavored over the years to make this a top quality course. Loren Heun is the Director of Stat 2160 and his comments for this issue of the Newsletter are on the web-component of Stat 2160.

In 2001, the Statistics Department launched a process that allowed business students to take multiple-choice quizzes on-line. This process was found to be effective because it gave consistent assignments across all sections and helped students prepare for examinations. The work for this project was performed by graduate statistics students in the department's statistics lab, Statistical Computa-

tion Lab (SCL). Software included cgi-script and html.

Four years later, the Stat Department expanded this tool to include homework. A foundation of a relational database and PHP coding simplify the process and facilitate loading student names and story problems. After students complete their homework, they can see their results immediately, and since grading is automatic, instructors can retrieve the students' grades. This allows more time for teaching and meeting with students. The work was conducted by graduate statistics students in the SCL.

The Statistics Department would like to thank Dr. McKean and current and for-

mer graduate students Kim Crimin, John Kloke, Scott Digel, Eric Nantz, Fawn Courtney, Chad Russ, Regina DeLosSantos, Shuchismita Sarkar, Soheyb Kouider, and Olu Awosoga for working on these projects.



Loren Heun

Alumni Spotlight

Our strength is our alumni. In each issue, we will introduce you to a few and let you know what they are doing now. This is also our invitation for you to consider yourself selected for an upcoming issue. Please email us if you are willing to be interviewed, and one of our team will contact you. You can email either joseph.mckean@wmich.edu or cheryl.peters@wmich.edu. We want this newsletter to serve as a method for announcements; a new baby, marriage, job change, gave a talk, got promoted, earned another degree, etc. Send these info items to cheryl.peters@wmich.edu. When you email please include the degree earned and year of graduation from WMU.

John E. Daniels

After 15 years of corporate work, I returned to academia in 1997. After considering several opportunities, I chose the statistics program at WMU because of its emphasis on applied statistics, rather than strict theory. I really enjoyed the wide variety of classes available, both theoretical and applied, as well as a chance to hone my teaching skills. Being a stubborn engineer, I struggled with the theory at first but eventually embraced its importance. Upon graduation six years later, I had several tenure track offers and chose Central Michigan University. I teach 3 classes per semester (2 intro stat courses and one graduate level course). We have a "Stat Lab" here so I put 35 business students on PCs and teach them basic probability and statistics using Minitab. We focus on real world (student generated) data rather than the information found in statistics textbooks. This is a bit more fun, for both students and professor, than a dusty chalkboard.

In retrospect, the WMU Statistics Department was very good to me (financial assistance, research support, recommendation letters, etc.) and I am very happy with my present situation. I still go back to Everett Tower, when I have the time, to visit with the faculty. Things haven't changed too much, at least the offices are where they have always been, which is reassuring in this ever changing world of ours. It always makes me happy to see some of you at the JSMs and other conferences. There are lots of funny stories to tell and I enjoy hearing about your accomplishments.

Personally, my research and publications have included geostatistics, some non-parametric applications, and statistics education. Overall, I believe I have been successful at slaying the three headed monster of academia (teaching, research, service). I was recently awarded tenure.

I have three young daughters (1 ½, 5, 7) that keep me very busy and students that always test my patience. But all in all, WMU has a great program and I have learned the sky is the limit if you are willing to work hard and persevere.

I trust all of you WMU alumni are finding your way in this complicated world. Having been a non-traditional student, I am pretty comfortable with my chosen path because I am well aware of the alternatives available. I would encourage all of you to explore the wonderful options your degree gives you. You have the ability to be anything you want to be. Your success reminds those who wish to eliminate programs at WMU just how important a graduate program in statistics is. Good luck and please drop me an email (danielje@cmich.edu) if I can be of help to my WMU family.

Tom Vidmar

Tom joined BioSTAT Consultants as a statistical consultant in 2008. He has worked for over 30 years in drug discovery and development for the pharmaceutical industry. His experience spans professional and senior managerial responsibilities in statistics, specializing in the nonclinical areas: Pharmaceutical Sciences, Pharmacology, Toxicology, High Throughput Screening, Drug Metabolism, and Genomics. Tom received an undergraduate degree in Mathematics, MS degree in Biostatistics and PhD in Mathe-

matics with a concentration in Statistics from WMU. (Tom was the first Statistics PhD student to graduate from our program.) Tom has participated in the Pharmaceutical Research and Manufacturers of America as an elected member of the Biostatistics and Data Management Group. Tom has worked with the statistics computational laboratory (SCL) on WMU's campus, helping form relationships between the lab and Pfizer. He has authored or coauthored over fifty publications, a book, and several book chapters.



Tom Vidmar

Statistical Computation Lab (SCL)

What's happening at the Statistical Computation Lab? We are consulting on contracts and agreements. We are managing on-line presence for Stat 2160 and Stat 1600. SCL staff; Joe McKean, Loren Huen and Rajib Paul, Gilbert Muma and Therawat Wisadrattanapong.

Kalamazoo Center For Medical Studies (KCMS)

Michigan State University/Kalamazoo Center for Medical Studies (MSU/KCMS) is a university and community partnership driven by a team of dedicated professionals committed to provide excellence in graduate, undergraduate and continuing medical education, knowledgeable and caring service and research.

Our Values

- Compassionate Service
- Leadership
- Lifelong Learning
- Teamwork
- Commitment to Excellence

The research department headed by Dr. Luis Toledo (pictured right) has been structured to encourage research oriented scholarly activities to



foster the most updated and effective graduate medical education for medical students, residents and faculty, which will greatly contribute to the enhancement of care for patients who visit the center.

The SCL has enjoyed a fifteen year relationship with KCMS. The SCL is principally involved in designing studies,

analyzing data, formulate scientific questions, determine appropriate sampling techniques, coordinate data collection procedures and carry out analyses to answer scientific questions. Currently Gilbert Muma is our graduate student who is interning at KCMS.



Dr. Luis Toledo

Innovative Analytics Company



Patricia L. Ruppel, MPH, PhD



James M. Dancy, BSE, MBA

Innovative Analytics supports exploratory studies and clinical drug/device development programs with standard and innovative data management, statistical, and medical writing services. We have considerable experience with the clinical validation of imaging, genomic, and biochemical biomarkers.

Our database and analysis processes are ICH and GCP compliant. We have extensive experience with the content of and eCTD formats for US, EU, and Japanese regulatory submissions for various therapeutic areas and orphan drugs. These include INDs and NDAs for drug applications, as well as PMAs and 510(k)s for device applications.

We provide large and small clients with flexible “turn-key” support, resource augmentation, and consulting arrange-

ments. Srinand Nandakumar, who is planning to defend his thesis in Spring, was recently hired by Innovative Analytics.



Graduate Student Spotlight

We have twenty PhD students and twenty-five MS students in our graduate programs. For this issue we selected two of our PhD students who are preparing to defend their doctoral theses during this Spring semester. We anticipate the graduation of seven doctoral students this year, which is testament to our students as well as their advisors. Please watch for defense notices on our website, and make plans to attend if possible.

Oluwagbohunmi Adetunji Awosoga

My name is Oluwagbohunmi Adetunji Awosoga, born in Lagos, Nigeria. I am married and blessed with three wonderful kids (David, Joshua & Mercy). Presently I am working on my dissertation, which I hope to defend this semester. I plan to join the league of academicians to give back to my community and take on competitive challenges and add to existing knowledge. I have earned degrees in NCE



Olu Awosoga

(Math/Econs), BSC (ED), MSC (Stat), PGD, MBA, MA (Math) and a MS (Applied Stat).

My working thesis title is: Meta Analyses of the Multiple Baseline Time Series Design Intervention Models for Dependent and Independent Series.

Srinand Ponnathapura Nandakumar

I joined Innovative Analytics Inc. as a summer intern in the summer of 2006. I started as an apprentice to many who had experience equal to my age. Initially, I got involved in SAS programming from where I studied the various requirements of protocols for programming. Within a year I was working on Clinplus, a software that is used to database management of Pharmaceutical work.

In the midst of these activities, I was involved by my bosses as a researcher who had to fish out papers on atypical techniques which came across the way. I did

some research in topics such as ROC analysis, computation of Dunnette's intervals with multiple strata, etc. Most of the paper I gathered, concerned application of the statistical methodology for the FDA. My PhD thesis topic was motivated by one of my supervisors in the company. I have been involved in the study and research of some equipments which unlike a drug have different standards to meet for FDA. The exposure is both unique and wide which has allowed me to achieve a foundation from where I can now understand the lingua franca of the FDA.

My working thesis title is: Statistical Procedures for Bioequivalence



Srinand Nandakumar

News from Cheryl

There is so much going on in our department these days. We have new faculty, new courses and new collaborations within and outside of the University as well as new engagements, recent weddings, new jobs and growing families. We are building our undergraduate program while we continue to focus on the success of our graduate program. We have many graduations on the horizon and we hope we have served these students well. We hope they leave with fond memories of their time with us, and we encourage them, and you, to keep in touch. Share your news with us! Consider coming to Kalamazoo to give a talk or make a presentation. If you would be able to hire one of our students and an intern, let us know.

In future issues, I will have a section dedicated to announcements; so please email me with any information you would like to pass along. We want this to be your newsletter and serve an means for us to catch up, keep in contact and highlight your accomplishments as well as our departments.



Cheryl Peters



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Support Spotlight

We are fortunate, many former graduates generously donate to our department through the WMU foundation. In this time when state funding is increasingly restricted, the support we receive from friends and alumni is vitally important. These funds are used to enhance teaching and research and to assist our students in achieving their educational and professional goals.

If you haven't donated before, consider a pledge today. The WMU Foundation processes all gifts that come to the University and places them into an account for our department use. Our Michigan residents can receive fifty percent of their gift back as a tax credit on their state income tax (up to \$200 for a single filer; \$400 for joint filers).

Donations can be made online through the foundation at: www.wmich.edu/foundation/gift. Be sure to designate your donation for Department of Statistics. Financial support can also be sent by mail. Checks should be made payable to WMU Foundation. Indicate the Statistics Department in the notation, or detach and include the voucher below. Thank you for your support of our Department.

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