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Statistical Moments

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Past, Present and Future Statistics at UCLA
Greetings from the Chair
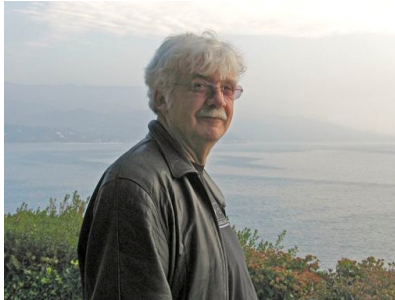
Jan de Leeuw

In 1998 the Division of Statistics of the Department of Mathematics and the Social Statistics Program of the Division of Social Sciences were merged to form a new Department of Statistics. In the Fall of 1998 we started teaching our own MS and PhD programs. This means that in 2008 we celebrate our tenth birthday. In May we had a birthday party at the Chair's Mansion in Cuddy Valley. In the Fall we will have a conference with guest speakers to celebrate the milestone.

Since 1998 there have been many changes[1]. Some are new programs: we started an undergraduate B.S. in 2004. Most of the changes are simply rapid growth. Faculty grew from 12 to 17.33, with two searches underway. The graduate program in 1998 had 40 applications, 18 admissions, and 9 students accepting. This year we had 221 applications, 53 admissions, and 24 new students will come. We will also graduate 24 MS and PhD students, and our total number of students will remain stable at 95. The number of undergraduate majors has grown from 8 in 2004 to 38 in 2007. Enrollments in our courses have grown

from 2750 to 4200 students per year, with graduate course enrollment going from 150 to 900.

Currently, we are at our limits. Because of space, resources, and faculty positions we cannot grow the graduate program, and we cannot grow the course offerings and course enrollments. If we had the resources, we could easily grow and maintain the current student/teacher ratios, because the demand for statistics and statisticians is basically infinite.

In 1998 fast growth was our primary concern, because we had to prove the new department was viable. And also because the structure of the University favors larger departments. In 2008 growth is no longer a concern. If the University wants us to grow, and provides the resources, then we will grow. But it will be smart growth, emphasizing quality, and moving in the exciting new directions made possible by the never ending streams of data and the developments in software and hardware that define modern statistics.

[1] For a State of the Department presentation see http://moments.stat.ucla.edu/ss08/chairs07.pdf

Statistics News

SOCR NSF Funding Extended Through 2011

On September 24, 2007, the National Science Foundation (NSF) extended the funding for the SOCR project for another 4 years[2].
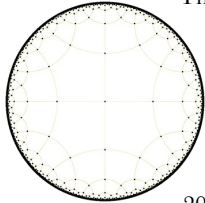
This is a great accomplishment for the SOCR team and recognition of the SOCR Resource achievements since 2002. In the next 4 years, SOCR will design, test, validate, and disseminate:

1. Tools (applets, demos, GUI interfaces)
2. Educational materials (activities, class notes, tutorials)
3. Resources (Statistics Online Computational Resource Wiki, consulting, workshops, etc.)

For more information about the SOCR project, visit the SOCR website at: http://socr.ucla.edu

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense...". With an annual budget of about $5.92 billion, we are the funding source for approximately 20 percent of all federally supported basic research conducted by America's colleges and universities. In many fields such as mathematics, computer science and the social sciences, NSF is the major source of federal backing.

Faculty News

Nicolas Christou Receives 2008 Copenhaver Award for Innovation in Teaching with Technology

Dr. Nicolas Christou has been honored as one of three recipients of the prestigious Brian P. Copenhaver Award for Innovation in Teaching with Technology for 2008.

Nicolas' award is in recognition of his development of the suite of interactive learning materials and simulation tools available through the Statistics Online Computational Resource and used by students and researchers at UCLA and around the globe[3]. More specifically, his recognition is for[4]:

• His contributions to the Statistics EBook

• His lead in building SOCR curriculum resources and classroom integration of SOCR materials in many lower and upper division classes

• His development of novel interactive activities included in the SOCR Experiments and SOCR Analyses

• His developments of dozens of learning modules (e.g., Relations between distributions)

Recipients of the Award were selected by the Faculty Committee on Educational Technology and prior award recipients. Award recipients and nominees were recognized at a reception May 19, 2008 at the Faculty Center. To promote the open exchange of ideas in the use of technology in teaching, the Office of Instructional Development will, as in previous years, be interviewing all nominees for the Copenhaver Award. The interviews will be put on line as they become available[5].

Wu, Si and Zhu Win Marr Prize Honorary Mention

The paper "*Deformable Template as Active Basis*" written by Yingnian Wu, ZhangZhang Si and Song-Chun Zhu, won a Marr Prize honorary mention at the 11th International Conference on Computer Vision in Rio De Janeiro in October 2007.

The Marr Prize, awarded biennially is the most prestigious award in computer vision. One paper is selected for the prize and three papers are given honorary mentions. This year there were over 1300 submissions.

Song-Chun Zhu Receives Changjiang Scholar Title

Song-Chun Zhu received a Changjiang Scholar title from the Ministry of Education, China. This is a visiting professorship title.

The main objective of the Chiangjiang[6] Scholar program is to improve China's intellectual competitiveness in all areas of higher education by rapidly developing Chinese research institutions. Awardees normally embark on collaborative research with various Chinese universities. They are mainly professors and scientists, originally from China, but employed outside China, must have an outstanding record in research, be internationally recognized in their field, and be capable of developing a first-class research program. The awards are based on the results of a competition among the nominees chosen by Chinese universities.

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[2] http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0716055

[3] http://www.oid.ucla.edu/edtech/bpcaward/bpca2008

[4] http://wiki.stat.ucla.edu/socr/index.php/SOCR_Awards_Christou_BC2008

[5] http://www.oid.ucla.edu/edtech/bpcaward/bpca2008

[6] "Changjiang" means the Yangtze River

Conference and Symposium Presentations and Organizations

• Ivo Dinov is a co-organizer of the symposium, "Computational Science and Biology: The Challenges, Data, Methods and Tools"(MS4, MS12) at the SIAM Conference on Imaging Science to occur in San Diego in July, 2008. For more information see the SIAM Conference on Imaging Science[7] site.

• Nicolas Christou presented the paper, "Statistics Online Computational Resource" at the Hawaii International Conference on Statistics, Mathematics and Related Fields[8] in January, 2008 in Honolulu.

• Alan Yuille and Song-Chun Zhu co-organized the 6th Int'l Conference on Energy Minimization Methods in Computer Vision and Pattern Recognition[9] (EMMCVPR) in August 2007.

Faculty Profile: Ivo Dinov

Dr. Ivo Dinov directs the UCLA Statistics Online Computational Resource (SOCR). SOCR has been funded by the National Science Foundation since 2005. Along with other UCLA faculty, students and researchers, Dr. Dinov develops 4 types of educational resources – datasets (research-based or simulated), instructional materials (e.g., learning activities), web-based Java demonstrations (e.g., virtual experiments) and computational libraries. All of these instructional materials are freely available over the Internet (www.SOCR.ucla.edu). They include interactive applets illustrating statistical, mathematical and computational concepts, and are useful for exploratory analyses and scientific applications. SOCR materials have been tested in a number of lower and upper division probability and statistics courses at

UCLA, UCSB, Nevada State College and a number of other institutions across the globe (http://www.socr.ucla.edu/SOCR_User GoogleMap.html).

Resources developed by Dr. Dinov have helped to enhance the teaching of statistics by integrating new technologies in the classical educational curricula. In the past year, he has organized workshops and presented his work at numerous national and international events (e.g., AMS/MAA, JSM, ASA/GAISE Webinars, ISI, MERLOT, SIAM, etc.)

In addition to his work on statistics education, Dr. Dinov is involved in computational science and biology research funded by the National Institutes of Health. In his role as the chief operations officer, Dr. Dinov manages the National Center for Computational Biology (www.CCB.ucla.edu) and studies biological shape, form and size using novel mathematical, statistical and engineering techniques.

Another one of Dr. Dinov's accomplishments over the past year was jump-starting the first community-built, completely open-access, technology-integrated and multi-lingual online EBook on probability and statistics education (http://wiki.stat.ucla.edu/socr/index.php/EBook). At UCLA, sections from this electronic book are used for Interactive and Computational Probability (Stats 35A), Statistics for Health and Life Sciences (Stats 13), Applied Statistics (Stats 100A). It is also used for other courses outside of UCLA.

Early in 2008, together with SOCR investigators, Dr. Dinov developed the Distributome project, which provides interactive access to mathematical, computational and exploratory tools of over 65 probability distributions (http://socr.ucla.edu/htmls/dist/).

Faculty Profile: Mahtash Esfandiari

Dr. Mahtash Esfandiari has been involved in statistics educational projects at UCLA for the past 14 years. Since 2004, Dr. Esfandiari headed the Statistics Department "blended instruction" case study which combines technology and classical pedagogical methods to improve undergraduate statistics education. She designed this case study around research based theories of teaching, learning, and assessment. A major outcome of this case study was the development of a test-bank of over 2,500 problems and their solutions. The problems included in the test-bank are not based on recall of information or memorization, rather they test the students' conceptual understanding, engage them in problem solving, and test their upper level thinking. The test-bank has helped to enhance formative evaluation by making it possible for the instructors to construct weekly on-line quizzes, get immediate feedback on the students' overall performance, and provide the students with instant results regarding their performance. This has been a major step toward helping students to play an active role in their own learning, and assisting the instructors in pinpointing the content that needs to be revisited. Over the last four years, by collection of extensive knowledge and attitudinal data on the control and the experimental groups, Dr. Esfandiari has demonstrated that through "blended instruction" students' ability to engage in application, analysis, and synthesis of statistical concepts and strategies in-

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[7] http://www.siam.org/meetings/is08/

[8] http://www.hicstatistics.org/

[9] http://www.emmcvpr.org/
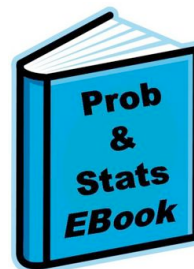
creased, the students' attitudes toward statistics became more positive so that they perceived statistics as "science of data" and as a mean of "answering real world questions" and not a series of computations without any real context or objective. Another major finding that resulted from the evaluation of "blended instruction" was that attendance in the sections almost doubled. This is due to the fact that the teaching assistants no longer spend their whole time solving the homework problems. Rather they place students in groups and play the role of a coach or facilitator to help them engage in data analysis projects and find the answers to the question that the majority missed on weekly quizzes. In the next phase of the blended-instruction Dr. Esfandiari will examine and analyze the students' written responses to open-ended questions through the development of an "Automated Essay Grading Software". She is doing this in collaboration with Hai Nguyen, a graduate student at the Statistics Department.

In addition to teaching undergraduate statistics courses, Dr. Esfandiari also teaches graduate courses in "Statistics Education", and "Statistical Consulting". The statistics education courses have played a major role in improving the role of the teaching assistants and they are popular with graduate students in statistics and other related disciplines.

Dr. Esfandiari has extensive experience as a statistical consultant and evaluator of interventions in different areas including biomedical, educational, social, civic, business, and economics. She is extremely interested in application of a data-driven approach combined with case-based instruction to teaching of statistics. She accomplishes this goal by designing her teaching around case studies and data that have resulted from her work as a consultant and evaluator. Through extensive evaluation she has shown that using this approach significantly improves students' attitudes toward

statistical sciences, helps them play an active role in their own learning, and helps them see how statistics can be used to answer real world questions.

In addition to her educational and research endeavors at the Statistics Department, Dr. Esfandiari also plays an active role in the UCLA community through her collaboration with the biomedical community and the School of Education in the role of a statistical consultant or evaluator. She is also engaged in a number of community and service activities. She served as the president of the Southern California chapter of the American Statistical Association, directs undergraduate and graduate student projects, serves as an associate editor of the Journal of "Technology Innovations in Statistic Education" and the "International Journal of Intercultural Relations", regularly presents and publishes her research on statistics education. Finally, she is planning to write an Applied Statistics textbook that combines her expertise as an educator, her experience as a statistical consultant, and her research in the application of technology to teaching statistics.

Student News

Ariana Anderson: Collegium of University Teaching Fellow

Ariana Anderson has been awarded a teaching fellowship by the Collegium of University Teaching Fellows[10] committee.

"The CUTF is an innovative program that creates unique learning opportunities for both graduate teaching fellows and undergraduate students on campus. Through the program, some of UCLA's very best advanced graduate students have the opportunity to develop and teach a lower division seminar in their field of specialization on a one-time only basis. This experience serves as a "capstone" to the teaching apprenticeship, preparing them for the academic job market and their role as future faculty. At the same time, undergraduates enrolled in CUTF seminars have the chance to take courses that are at the cutting edge of a discipline, and to experience the benefits of participating in a small-seminar environment."

Ariana's accepted proposal is entitled "Pseudo-Science: Rational thought Processes".

Ariana explains: "In this class, we will learn how to objectively read writings and judge common, yet often controversial, claims in American culture. Sample topics covered will be the relationship between autism and vaccinations, global warming and human behavior, holistic medicine, and the safety of genetically modified foods. Students will learn how to locate scientific sources to validate claims, and how to objectively interpret statements in the light of data and logic. The last portion of the course will focus on the neurophysiological and logical implications of belief, discovering how the brain evaluates and invalidates argu-

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[10] http://www.oid.ucla.edu/Cutf

ments. The beliefs held in the natural world of science will be contrasted to the beliefs held in our personal life, illuminating how we develop our convictions on both. By evaluating polarizing topics through the lens of statistics and logic, we will learn how faith and beliefs bias not only other people's conclusions, but also our own."

The course is a 5 unit course, will meet two days a week, and will be conducted in the Winter/Spring 2008 term.

Ariana is a third year in the Statistics department and has a strong interest in statistical applications in Psychiatry.

Ariana is also the third of our graduate students to achieve this award, Katherine Tranbarger and Adam Sugano having received it previously.

Janice Brodsky Awarded UCLA Genomic Analysis Training Program Grant

We are delighted to congratulate Jae Brodsky who was awarded one of the UCLA Genomic Analysis Training Program grants for the 2008 - 2009 academic year. This National Institute of Health (NIH) program, open to any U.S. citizen or permanent resident UCLA Ph.D student, provides a stipend of over $20,000 plus UCLA tuition and fees. The program is also renewable for up to three years. Its purpose is to allow a recipient to obtain a suitable biological, computational and statistical background to work in the new, interdisciplinary field of genomic analysis. Jae will be working in the area of statistical genetics with Chiara Sabatti and she will be analyzing association studies of the human genome.

Irina Kukuyeva Participating in JPL Graduate Student Researchers Program

Irina Kukuyeva, a first year MS student, has been selected by JPL to participate in the NASA Graduate Student Researchers Program (GSRP).

Conference and Symposium Presentations

• Ariana Anderson will present the paper, Classification Of Alzheimer's And Normal FMRI Scans Using Temporal Network Distance Matrices (co-authored with Dr. Ivo Dinov) at JSM 2008 in Denver.

• Ariana Anderson will also present the paper, Classification of Schizophrenic and Normal Resting State fMRI scans using Temporal Network Associations at the Human Brain Mapping Conference 2008 in Melbourne.

• Rahul Gidwani presented the papers: "Interactive Web-Based Probability Distribution Mathlets: www.SOCR.ucla.edu" and "Generating Functions: Web-based SOCR Applets and Computational Library Interfaces" at the Joint Mathematics Meetings in San Diego in January, 2008.

• Annie Che presented a poster, "SOCR Analyses: a free Internet-based Statistical Analysis Toolkit" at the Joint Mathematics Meetings as well.

Commencement 2008

The Department of Statistics is holding its annual Commencement Celebration at 12:30-3:00 PM on Saturday, June 14 at the IPAM Building.

This year, four students received the Bachelor's of Science degree in Statistics. The following students have completed their degree requirements or are expected to complete their degree requirements by Summer 2008:

✦ Tara Cristine Fong
✦ Shang Gao

✦ Daniel Sun
✦ Andini Christina Wibowo

Twelve students have completed their degree requirements or are expected to complete their degree requirements with a Minor in Statistics by Summer 2008. These students are:

✦ Renee Caroline Bell
✦ Shing Xin Chan
✦ Siu Sun Cheung
✦ James Giang H Do
✦ Thomas Shun Jim
✦ Lucia Jimenez M.
✦ Samuel Alexander Juwono
✦ Siu Ling Teresa Lam
✦ Edward Lee
✦ Nan Ping Wang
✦ Huan A. Xie
✦ Michael J. You

Twenty-four students have completed their degree requirements or are expected to receive their Masters of Science degree in Statistics by the end of Summer 2008:

✦ Jamie Barron
✦ Brigid Brett-Esborn
✦ Napat Buddhangkuranont
✦ Joshua Chang
✦ Yan Chen
✦ Oliver Edmonds
✦ Courtney Engel
✦ Natasha Ericta
✦ Esa Eslami
✦ Denise Beatriz Ferrari
✦ Yong Fu
✦ Michael Karsh
✦ Judy Kong
✦ Chuanqi Li
✦ Ryan Robert Rosario
✦ Colin Rundel
✦ Brandi Logan Shanata
✦ Kent Shi
✦ Zhangzhang Si
✦ Wei Tan Denise Tsai
✦ Haiqiang Wang
✦ Shuojun Wang
✦ Wei Xie
✦ Ting Zhou

Ten students have completed their degree requirements or are expecting to complete their Ph.D. in Statistics by the

end of Summer 2008. Their names, dissertation titles and advisor's names are:

✦ Chris Barr

   Applications of Voronoi Tessellations in Point Pattern Analysis, Advisor: Frederic Paik Schoenberg

✦ Chien-Hsun (Maria) Chang

   Separability Testing for Point Processes with Covariates and An Application to Wildfire Hazard Assessment, Advisor: Frederic Paik Schoenberg

✦ Ya-Ching (Matilda) Hsieh

   Homals-clustering Analysis and its Applications in Computational Sequence Analysis, Advisor: Jan de Leeuw and Ker-Chau Li

✦ Juanmei Liu

   Multivariate Ordinal Data Analysis with Pairwise Likelihood and Its Extension to SEM, Advisor: Peter Bentler

✦ Yijing Shen

   Study of Functionally Related Gene Groups Using Microarray Expression Data: Theory and Application, Advisor: Ker-Chau Li

✦ Adam Sugano

   A Player Based Approach to Baseball Simulation, Advisor: Mark Hansen

✦ Xuelian Wei

   Statistical Methods in Classification Problems using Gene Expression/Proteomic Signatures, Advisor: Ker-Chau Li

✦ Haiyong Xu

   Directional Kernel Regression and Point Process Modeling in Wildfire Hazard Assessment, Advisor: Frederic Paik Schoenberg

✦ Zijian Xu

   A Hierarchical Compositional Model for Representation and Sketching of High-Resolution Human Images, Advisor: Song Chun Zhu

✦ Tun Hsiang Yang

   Family Based Liquid-association Study: An Approach to Map the Disease Genes for the Complex Trait, Advisor: Ker-chau Li

SGSA News

This past year was a very active year for graduate students. During spring quarter, SGSA hosted a bowling night in Santa Monica. Turnout was huge and brought out familiar faces and those that we have not seen in a while. After each person had completed a full game, a championship was held among those that received above a certain score. Matt Kugizaki came out on top as the winner!

Speaking of winning, after three wins in a row, SGSA president David Diez's winning streak in the Department poker series was finally broken by Mingtian Zhao. …But the faculty has yet to win back its title! On the other hand, this year's softball team Normal Deviations

played without any wins, but everyone had a great time. Every Friday at 7 pm we battled a formidable competitor including an unstoppable computer science team as well as a team from the Anderson school. Next year we will be back, and victory will once again be ours!

At the end of spring, Jae Brodsky organized a graduate student roundtable discussion in the lounge, complete with great food from UCLA Catering. Topics of discussion involved life as a graduating student and as a researcher and provided advice on progressing through both the doctoral and master's programs. Attendees felt that the discussion was very helpful in thinking about their future. Thank you for all of those that attended and to those that spoke. This event replaced the weekly seminar, and was sponsored by SGSA.

Staff News

Our New Student Affairs Officer (SAO), Glenda Jones, A Bruin Angel

Although our SAO, Glenda Jones, has been with our department for almost a year, she was recently hired as a permanent employee on April 11, 2008. Glenda works with the students and faculty in our department and manages all functions associated with Student Services; including recruitment, advising, admissions, student funding, graduations, faculty and TA evaluations, to name a few. Since 1998, she has held the position of student affairs officer for graduate and undergraduate in African Studies and the Department of Political Science at UCLA.

When Glenda was asked to sum up why she likes being an SAO, she responded, "I like the variety of tasks and challenges of the job". She explained that the SAO has to wear many hats and juggle many issues while dealing with many different personalities. "My goal" she added "is to be the best SAO, I can be, assisting everyone who enters my office".

Outside of her work as an SAO, Glenda is a volunteer for Village Walk Global Services. She travels with the group, coordinating the delivery of school supplies to orphanage schools in East Africa. This year, her organization will build their first school in Mombasa Kenya. In 2005, UCLA applauded Glenda's volunteer work by naming her A Bruin Angel in UCLA TODAY. She also is a long time Member of the La Providencia Guild which raises funds for the Los Angeles Children's Hospital. Her studies include a Master's degree in African Studies with a focus in Development from UCLA.

We are glad to finally have Glenda employed on a permanent basis and hope

that she stays with us for many years to come.

Department News

The Department's 10 Year Anniversary Celebration

The tenth anniversary of the Department of Statistics is being celebrated with two events. (April 27, 1998, Friday, 3:10pm, is the exact moment of birth.)

On April 26, 2008 a party was given at Jan's Frazier Park home.

The day was bright, cool and breezy; and the landscape inhabited with native wildlife–California Blue butterflies, California Poppies, quails, and horny-toad lizards. The day afforded students, staff, faculty and their children respite from the heat and bustle of LA, 5800 ft. below, and a chance to unwind and socialize. You can see photographs of the event by browsing to the Picture Gallery[11] at our department website.

The second event will be a formal one held in the fall at the IPAM building and it will include guest speakers. For more information on it stay tuned at our news page website[12].

Engagements and Births

Congratulations to Tiffany Head who announced her engagement to Alexander Himmel. The two are to be married in the summer of 2009.
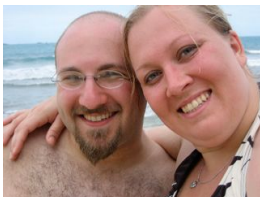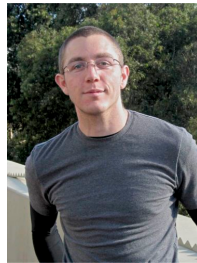
Alex is a PhD student in physics at Caltech.

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Jennifer Ono gave birth, on December 12, to a healthy baby boy, Patrick Joseph Harrison. His birth weight was 6 lb, 8 oz.

Alumni News

Christopher Barr, Post Doctoral Fellow at Johns Hopkins Biostatistics Department

Christopher Barr, who has just completed his Ph.D, is a visiting lecturer at California Polytechnic State University, San Luis Obispo for the Spring semester. Immediately following that he will be joining the Biostatistics Department of the Bloomberg School of Public Health at Johns Hopkins University in Maryland as a post doctoral fellow. His areas of research will be functional data analysis and spatial statistics.

Other Alumni News

- George Michailides (PhD 1996) was promoted this year to full professor, in the University of Michigan Department of Statistics.
- Vanessa Beddo (PhD 2003) is Senior Biostatistician, Kendle International, Inc, Durham, NC.
- Demetria Gianopoulos (MS 2005) is working as a Senior Actuarial Analyst at Farmers Insurance in Los Angeles.
- Jackie Dacosta (MS 2007) is currently working as an Business/Systems Consultant at a healthcare company located in Los Angeles. She is also teach-

ing introductory statistics courses part-time.

- This summer, Ching Ti Liu (PhD 2006) will be starting a new position as an assistant professor in the Biostatistics Department at Boston University.
- Roger Peng (PhD 2003) is an assistant professor of Biostatistics at Johns Hopkins University. In August 2007 he and his wife Lisa were married in Baltimore, Maryland.
- Katherine Tranbarger (PhD 2005) is an assistant professor in the Mathematics department at Amherst College. She and her fiance, Joshua Freier, are engaged to be married in summer 2008.
- Alejandro Veen (PhD 2006) is a Research Staff member at IBM's Watson Research Center in Yorktown Heights, New York.
- Kwan Y. (Amy) Kwong (MS 2004) is working at Primerica Financial Services.
- Sovia Lau (MS 2004) is working as a System Performance Analyst at General Electric Wind Energy.
- Yang Wen (MS 2005) is a Research Scientist at University of Washington.
- Alan Wong (MS 2005) is VP of AVM Development at Countrywide Financial Corporation.
- Weizhi Mo (MS 2006) is Senior Statistical Analyst at Sheriff Los Angeles County.
- Angela Chang (MS 2007) is working at the City of Los Angeles.
- Yu-Hui Pan (MS 2007) is Technical Data Analyst at Ticketmaster.com.

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[11] http://gallery.stat.ucla.edu/

[12] http://news.stat.ucla.edu/

Statistical Seedlings
Teaching

2nd CensusAtSchool International Workshop, July 28-29, 2008

The 2nd CensusAtSchool International Workshop is being held at UCLA this July 28-29. The theme of the workshop is "Data Handling and Chance Activities that Promote Statistical Literacy in School Children". Its goals are:

Achieve common understanding of the International CensusAtSchool project and other efforts of countries to impact statistical literacy in schools.

Acquire experience with CensusAt-School country-specific data handling activities and resources for teachers and students.

Learn about census-like projects not coordinated with CensusAtSchool.

Further promote and increase students' and teachers' interests in statistical literacy globally.

Increase awareness of the efforts made in the United States and other countries to improve statistical literacy of children in schools.

Share existing hands-on activities in the US and other countries.

If you, or someone you know, is interested in attending this workshop, please contact the local organizer, Juana Sanchez (jsanchez@stat.ucla.edu) or visit the local CensusAtSchool workshop homepage[13].

Advancing Statistics
Research

Grants

- Ivaylo Dinov, *Statistics Online Computational Resource for Education*, National Science Foundation (NSF), 9/1/2007–8/31/2011, $472,750.00. Nicolas Christou, Co-PI.
- Robert L. Gould, *Model Chance: A Technology-rich Environment for Learning Probability*, University of Massachusetts, 5/1/2005–4/30/2009, $148,669.00.

- Mark Hansen, *Computing in Statistics: Model Courses and Curricula*, University of California, Berkeley, 8/1/2006–7/31/2009, $156,252.00.
- Ker-Chau Li, *Study of Dimension Reduction Methods Driven by Large Scale Biological Data*, National Science Foundation (NSF), 9/1/2007–8/31/2010, $139,999.00.
- Yingnian Wu, *From Information Scaling to Regimes of Statistical Models of Natural Image Patterns*, National Science Foundation (NSF), 7/1/2007–6/30/2010, $125,914.00. Song-Chun Zhu, Co-PI.
- Hongquan Xu, *Efficient Large Fractional Factorial Designs: Theory and Construction*, National Science Foundation (NSF), 7/1/2005–6/30/2008, $89,999.00.
- Alan Yuille, *Image Parsing: Integrating Generative and Discriminative Methods*, National Science Foundation, 1/15/2005–12/31/2008, $470,000.00. Song-Chun Zhu, Co-PI.
- Alan Yuille, *Computational Theory of Motion Perception*, National Science Foundation (NFS), 9/15/2006–8/31/2009, $406,023.00.
- Alan Yuille, *A Computational Theory of Motion Perception Modeling the Statistics of*

the Environment, National Science Foundation (NSF), 9/1/2007–8/31/2009, $196,717.00.
- Song-Chun Zhu, *RI: Large Scale Object Recognition and Ground Truth Representation Using Stochastic Image Grammar*, National Science Foundation (NSF), 9/1/2007–8/31/2010, $143,775.00. Yingnian Wu, Co-PI.
- Song-Chun Zhu, *Framework Image Understanding and ATR*, University of Colorado, 4/1/2005–5/31/2009, $392,500.00.

Preprints, Papers and Reviews
Recent Papers

1. *de Leeuw, J., Mair, P.* Simple and Canonical Correspondence Analysis Using the R Package anacor. (2007). UCLA Statistics Preprints.
2. de *Leeuw, J.* A Horseshoe for Multidimensional Scaling. (2007). UCLA Statistics Preprints.
3. *de Leeuw, J.* Correspondence Analysis of Archeological Abundance Matrices. (2007). UCLA Statistics Preprints.
4. *de Leeuw, J.* (2007) Derivatives of Generalized Eigen Systems with Applications. UCLA Statistics Preprints.
5. *de Leeuw, J., Wang, S.* (2007) Ozone Standard Exceedance Days in the South San Joaquin Valley. UCLA Statistics Preprints.
6. *de Leeuw, J., Mair, P.* Homogeneity Analysis in R: The Package homals. (2007). UCLA Statistics Preprints.
7. *de Leeuw, J.* (2007) The Multiway Package.. UCLA Statistics Preprints
8. *Cha, Y., J. Brodsky, G. Ishiyama, C. Sabatti, and R. Baloh*, (2007) Clinical Characteristics and Associated Features of Mal de Debarquement, to appear in Journal of Neurology.
9. *Sabatti, C., K. Visnyei, H. Kornblum* (2008) Statistical challenges in High-throughput Screens. UCLA Statistics Preprint #532.
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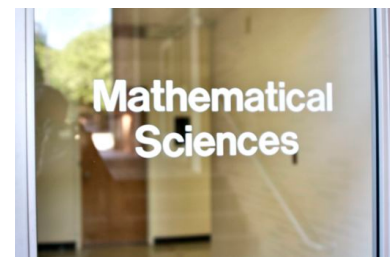
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Computing Matters
Bits && Bytes

Journal of Statistical Software

The first of the department's Rails projects was successfully deployed last summer. As of May 2008 the Journal of Statistical Software[14] has had an average of 12,053 hits per day.

Writing the application has been a great opportunity to learn AJAX and the Rails framework, providing lessons which will be applied on more of our web interfaces in the coming months.

Rich Web Interfaces on the Horizon

The World Wide Web Consortium (W3C) is drafting the next set of features for your web browser, known as CSS3. Among the browsers rapidly adopting CSS3 are WebKit[15] (Safari), Opera[16] and Firefox[17]. Internet Explorer[18] is slowly but surely following as well.

CSS3 defines a standard set of features which enables a rich user interface, simplifies development, avoids proprietary solutions, and promises a common experience across all browsers.

I've put a few examples of CSS3 features on the web for you to see. These examples are screenshots just so you can see the features even if your browser doesn't support them yet.

- Boxes with Rounded Corners
- Text in Multiple Columns
- Box Shadows
- Image Reflection
- Image Masking
- Gradients

You can see the CSS code and HTML (so you can test if your browser can produce the effect) at my CSS3 page[19]. To see other CSS3 features, visit CSS Class examples[20]. To read what the W3C has defined for the future of browsers, visit their CSS work page[21].

Tools of the Trade

We use quite a few open source tools in the department. Just in case you were wondering what it is we use, here listed is just a sampling:

- R[22]
  R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and Ma-

cOS. To download R, please choose your preferred CRAN mirror.

- Grass[23]
  Commonly referred to as GRASS, this is a Geographic Information System (GIS) used for geospatial data management and analysis, image processing, graphics/maps production, spatial modeling, and visualization. GRASS is currently used in academic and commercial settings around the world, as well as by many governmental agencies and environmental consulting companies. GRASS is official project of the Open Source Geospatial Foundation.

- LaTeX[24]
  LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation. LaTeX is the de facto standard for the communication and publication of scientific documents. LaTeX is available as free software.

- Octave[25]
  GNU Octave is a high-level language, primarily intended for numerical computations. It provides a convenient command line interface for solving linear and nonlinear problems numerically, and for performing other numerical experiments using a language that is mostly compatible with Matlab. It may also be used as a batch-oriented language.

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[14] http://www.jstatsoft.org

[15] http://webkit.org/

[16] http://www.opera.com/

[17] http://www.mozilla.com/firefox

[18] http://www.microsoft.com/windows/products/winfamily/ie/

[19] http://www.stat.ucla.edu/~jose/css3/

[20] http://css-class.com/test/css/

[21] http://www.w3.org/Style/CSS/current-work

[22] http://www.r-project.org/

[23] http://grass.itc.it/

[24] http://www.latex-project.org/

[25] http://www.gnu.org/software/octave/

- MacPorts[26]

  The MacPorts Project is an open-source community initiative to design an easy-to-use system for compiling, installing, and upgrading either command-line, X11 or Aqua based open-source software on the Mac OS X operating system. To that end we provide the command-line driven MacPorts software package under a BSD License, and through it easy access to thousands of ports that greatly simplify the task of compiling and installing open-source software on your Mac.

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[26] http://www.macports.org/

What's Wrong with this Picture?

Just for Fun

On the next two pages are pairs of the same picture, or are they the same? Find what's different about them.

Answers:

1) The photo on the wall behind Ryan; Jae's watch; the alligator logo on Miles's shirt.
2) Yingnian's collar; Alan's shirt; the girl behind the fence.
3) The dog's tail; Gabrielle's pink sleeves; the logo on Jan's shirt is upside-down.
4) "Hottest models" became "test models" on Ting's shirt; Yan's sunglasses; Gong's shirt.

Support Statistics Teaching and Research

Giving

The UCLA Department of Statistics is growing rapidly, and our sources of public funding are not keeping up with our increasing demands. Funding from donors like you will help us maintain state-of-the-art computing facilities for our undergraduate majors and our graduate students. You can also help provide financial assistance for our grad students to support their research and teaching. Donate and advance Statistics' mission of promoting the use of data in the understanding of our environment, our social relationships, and our physical and virtual selves.

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[27] http://giving.ucla.edu/statistics

[28] http://giving.stat.ucla.edu

Events at UCLA and Statistics
Calendar

Mar 26, 2008	**Spring Quarter Begins**
Mar 28, 2008	**Cesar Chavez Holiday**
Mar 31, 2008	**Spring Instruction Begins**
May 26, 2008	**Memorial Day Holiday**
Jun 6, 2008	**Instruction Ends**
Jun 7-13, 2008	**Final Exams**
Jun 13, 2008	**Spring Quarter Ends**
Jun 14, 2008	**Statistics Commencement**
Jun 23, 2008	**Summer Session A Begins**
Jul 4, 2008	**Independence Day**
Aug 4, 2008	**Summer Session C Begins**
Sep 1, 2008	**Labor Day Holiday**
Sep 15-19, 2008	**Statistics Qualifying Examinations**
Sep 22, 2008	**Fall Quarter Begins**
Sep 25, 2008	**Fall Instruction Begins**
Nov 11, 2008	**Veteran's Day Holiday**
Nov 27-28, 2008	**Thanksgiving Holiday**
Dec 5, 2008	**Instruction Ends**
Dec 6-Dec 12, 2008	**Final Exams**
Dec 12, 2008	**Fall Quarter Ends**
Dec 15, 2008	**Ph.D. Applications Deadline**
Dec 24-25, 2008	**Christmas Holiday**
Dec 31-Jan 1, 2009	**New Year's Holiday**
Jan 5, 2009	**Winter Quarter Begins/Instruction Begins**
Jan 19, 2009	**Martin Luther King Jr. Holiday**
Feb 1, 2009	**M.S. Application Deadline**
Feb 16, 2009	**Presidents' Day Holiday**
Mar 13, 2009	**Instruction Ends**
Mar 14-20, 2009	**Final Exams**
Mar 20, 2008	**Winter Quarter Ends**