



**AMERICAN STATISTICAL ASSOCIATION  
HOUSTON AREA CHAPTER  
NEWSLETTER  
February 11, 2014**



**\*\*\*Tuesday, February 18, 2014\*\*\***

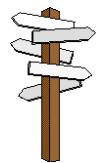
**Sheng Luo, PhD  
Assistant Professor  
Division of Biostatistics  
University of Texas School of Public Health**

**"Robust Bayesian Inference for Multivariate Longitudinal Data Using  
Normal/Independent Distributions"**

Many randomized clinical trials collect multivariate longitudinal measurements in different scales, e.g. binary, ordinal, and continuous. Multilevel item response models are used to evaluate the global treatment effects across multiple outcomes while accounting for all sources of correlation. Continuous measurements are often assumed to be normally distributed. But the model inference is not robust when the normality assumption is violated due to heavy tails and outliers. In this article, we develop a Bayesian method for multilevel item response models replacing the normal distributions with symmetric heavy-tailed normal/independent (NI) distributions. The inference is conducted using a Bayesian framework via Markov Chain Monte Carlo simulation implemented in BUGS language. Our proposed method is evaluated by simulation studies and is applied to ELLDOPA study, a motivating clinical trial assessing the effect of Levodopa therapy on the Parkinson Disease progression rate.

**HACASA meetings are open to the public! Please pass on copies of this announcement to colleagues and friends and post on appropriate bulletin boards.**

**WHEN and WHERE:** \*Tuesday, February 18, 2014\* at Duncan Hall, Rice University  
**5:30pm - Social Time and with snacks & drinks: Room 1049**  
**6:30pm – Talk (Room 1049)**



Duncan Hall (also known as the Computational Engineering Building) is on the northeast side of the Rice University Campus. For parking information and directions please refer to the Rice parking websites, the following have been found helpful:

<http://cohesion.rice.edu/campuservices/parktrans/parking/visitors.cfm>  
<http://www.rice.edu/maps/maps.html>

Thank you to **Rice University** and the **Department of Statistics at Rice University** for their generous support of HACASA by allowing us the use of their facilities for our gatherings, **and sponsoring FREE PARKING. See an officer for a voucher at the meeting.**

**To help us cover cost of our weekly snacks, we are asking for small donations (\$5 or more). Also, please RSVP so we can bring enough snacks and drinks. Please RSVP to Margaret Kuzynski at HoustonASA@gmail.com.**

**Introducing the officers!**

The officers for the 2013-2014 academic year are:

President: Becky Slack ([RSSlack@mdanderson.org](mailto:RSSlack@mdanderson.org))

President Elect and Science Fair Coordinator: Erin Hodgess ([HodgessE@uhd.edu](mailto:HodgessE@uhd.edu))

Past President: Hao Liu ([haol@bcm.edu](mailto:haol@bcm.edu))

Secretary: Michael Swartz ([Michael.D.Swartz@uth.tmc.edu](mailto:Michael.D.Swartz@uth.tmc.edu))

Treasurer: Margaret Kuczynski ([margaret.kuczynski@gmail.com](mailto:margaret.kuczynski@gmail.com))

ASA Chapter Representative: Heidi Spratt ([hespratt@utmb.edu](mailto:hespratt@utmb.edu))

### **Reminder!**

Membership dues: Students: \$1, and non-students: \$8.

### **Welcome New Members!**

Please take a moment at this month's meeting to welcome new members!



### **Mark Your Calendars!**

This year we are still meeting every month. In the Fall Semester (September through November) we will meet on the 2<sup>nd</sup> Tuesday. Starting in December and through the Spring, (January through May), we will move to the 3<sup>rd</sup> **Tuesday** of the month. The official dates and locations are below (all rooms are located in Duncan Hall on Rice University Campus):

**Tuesday, September 10, 2013 (DH3092)**

**Tuesday, October 8, 2013 (DH1049)**

**Tuesday, November 12, 2013 (DH1049)**

**Tuesday, December 17, 2013 (DH1049) Holiday Potluck**

**Tuesday, January 21, 2014 (DH1049)**

**Tuesday, February 18, 2014 (DH1049)**

**Tuesday, March 18, 2014 (DH1049)**

**Tuesday, April 15, 2014 (DH1049)**

**Tuesday, May 20, 2014 (DH1049) (Science Fair Winners)**

### **Let us know what you think!**

Send comments to Michael Swartz at [HoustonASA@gmail.com](mailto:HoustonASA@gmail.com) with the subject COMMENTS. Or Send comments / additions / corrections concerning the HACASA newsletter to Michael Swartz at [Michael.D.Swartz@uth.tmc.edu](mailto:Michael.D.Swartz@uth.tmc.edu)

### **Announcements**

### **VOLUNTEERS WANTED: SCIENCE FAIR JUDGES**

It is time again for judging for statistical projects at the 55<sup>th</sup> annual science engineering fair of Houston, 2014. As the ASA celebrates 175 years, you have the chance to impact the future of statistics. Please consider volunteering to be a judge at the Science and Engineering Fair if Houston on Thursday night, February 20. It takes about 3 hours, but can have a lifetime impact on a young statistician. We are looking for 10 volunteers. The fair will be held in the George R Brown Convention center, and judging takes place on **THURSDAY FEBRUARY 20, 2014 at 6:30 pm**. Please plan on arriving to the George R Brown convention center about 30 minutes early. If interested, please contact Margaret Kuczynski at [margaret.kuczynski@gmail.com](mailto:margaret.kuczynski@gmail.com) or phone number (917) 855-4333.

### **Celebrate 175 years of ASA!**

We will be recording a greeting video from our chapter to the ASA regarding the 175<sup>th</sup> anniversary of the ASA. Participation is optional, and promises to be fun. Come to the meeting to find more details. From ASA:

"Get involved with ASA's 175<sup>th</sup> Anniversary celebration and upload a video greeting from your chapter. See the video created by the ASA staff and instructions on submitting your own video here:  
<http://www.amstat.org/asa175/sendagreeting.cfm>"

## **Looking for speakers for Spring!**

Hi All, Erin is looking for speaker volunteers for spring. If you want to give a Talk at HACASA, please contact Erin Hodgess at [HodgessE@uhd.edu](mailto:HodgessE@uhd.edu)

## **HACASA Website MOVED!**

Our new website is launched! Please visit it for more information and announcements: is <http://community.amstat.org/Houston/Home> for comments and suggestions regarding content, please contact our website coordinator\maintainer: Margaret Kuczynski ([margaret.kuczynski@gmail.com](mailto:margaret.kuczynski@gmail.com))

## **JOB POSTINGS**

### **Statistical Analyst Baylor College of Medicine and VA medical Center**

Statistical Analyst for the Center for Innovations in Quality, Effectiveness and Safety, Section of Health Services Research, Michael E. DeBakey VA Medical Center and Baylor College of Medicine. The incumbent will have a wide range of responsibilities in providing data management and statistical expertise to all components of the VA Health Services Research and Development, Center of Excellence (HSR&D, CoE) and the Department of Medicine, Section of Health Services Research at Baylor College of Medicine (BCM). Interested applicants should e-mail resume and cover letter to Mr. Edward Pomer, HR Manager, Center for Innovations in Quality, Effectiveness and Safety at [Edward.Pomer@va.gov](mailto:Edward.Pomer@va.gov). Please reference "Analyst Position" in the subject line.

### **Statistician position at Southwest Research Institute**

Southwest Research Institute currently has an opening for a Statistician in its Fuels and Lubricants Division. Would it be possible for you to send notification of our ad posted at <http://www.amstat.org/ads/ResultsDetail.cfm?AdID=6317>. Southwest Research Institute (SwRI®) is an independent, nonprofit, applied engineering and physical sciences research and development organization. A partial listing of research areas includes antennas and propagation; automation, robotics, and intelligent systems; avionics, chemistry and chemical engineering; corrosion and electrochemistry; emissions research; engineering mechanics; fire technology; and fuels and lubricants. For more information about SwRI go to [www.swri.org](http://www.swri.org) and to view current job opportunities go to [www.swri.jobs](http://www.swri.jobs). <http://www.youtube.com/user/SwRItv>

### **Associate/Full Professor of Biostatistics/Clinical Trials Position at University of Texas School of Public Health (Tenure Track):**

The University of Texas School of Public Health (UTSPH) seeks a **senior** biostatistician to take a leadership role in the Coordinating Center for Clinical Trials. This is a state funded tenure-track faculty position at the Associate or Full Professor level in the Division of Biostatistics at The University of Texas School of Public Health, Houston campus in the Texas Medical Center. For more information see job postings on the HACASA website.

### **Assistant Professor of Biostatistics (Tenure Track), Department of Preventive Medicine and Community Health University of Texas Medical Branch at Galveston:**

The University of Texas Medical Branch at Galveston (UTMB Health) is recruiting a tenure track Assistant Professor (Biostatistics) to join the faculty in the Department of Preventive Medicine and Community

Health (PMCH). The department administers expanding clinical sciences, population health sciences, rehabilitation sciences and MPH programs, which are linked to the preventive medicine residency programs. Faculty members are active in clinical translational sciences and population health sciences research. Research strengths of PMCH faculty include aging, Hispanic health, cancer and comparative effectiveness/patient center outcome research (CER/PCOR). The department is exceptionally strong in providing collaborative expertise throughout the university. More information can be found at <http://pmch.utmb.edu/> or the Job Postings on the HACASA website.

### **Assistant Professor at the University of Texas at Austin:**

The Department of Statistics and Data Sciences at The University of Texas at Austin invites applications for a faculty appointment at the level of Assistant Professor to begin in Fall 2014.

The successful candidate will be expected to teach undergraduate and graduate statistics courses, develop an externally funded research program, supervise graduate students, collaborate with other faculty, and be involved in service to the university and the profession. For more information see [http://facultyjobs.utexas.edu/potential/view\\_job.cfm?jobID=2039](http://facultyjobs.utexas.edu/potential/view_job.cfm?jobID=2039) or the Job Postings on the HACASA website.

### **Statistician wanted for industry:**

United Global Solutions is currently in search of a Statistician for a Houston client to analyze and interpret data from various sources and provide expert opinions. This is an opportunity to help build a Statistics Department from the ground up, where you will be given the chance to be in a leadership role from the very beginning!

Requirements:

- Masters degree or PhD in Statistics
- Outgoing personality
- 3-7 years of experience
- Experience compiling reports, tables, and charts based on statistical methods

Benefits:

Our client offers outstanding benefits including, but not limited to: Medical, Dental, Vision, Life, 401(k), FSA, Holidays, PTO, Training and Mentoring programs.

Contact Adam Kaye, Executive Recruiter, United Global Solutions LLC, 832-294-2949, [adam.kaye@ugsmail.com](mailto:adam.kaye@ugsmail.com)

### **Opening at the Dan L. Duncan Cancer Center, Houston TX.**

The Dan L Duncan Cancer Center Division of Biostatistics at Baylor College of Medicine (Houston) collaborates with investigators engaged in the molecular profiling of cancers at various levels of complexity (including somatic mutation, mRNA, microRNA, DNA copy number, and protein), with the overall goal of better understanding cancer biology and improving cancer diagnosis and treatment. For this position, we are looking for someone to assist in statistical analysis of high throughput molecular data, including integration of datasets from disparate sources. BS in statistics, MIS, or related field required. For more information contact: Dr. Chad Creighton <[creighto@bcm.edu](mailto:creighto@bcm.edu)>. More information on the HACASA Website.

### **Opening at University of Texas El Paso**

The Department of Mathematical Sciences at The University of Texas at El Paso invites applications for a tenure-track position at the Assistant/Associate Professor level starting fall 2013. The Department is seeking someone who will develop an independent research program in statistics and teach undergraduate and graduate courses in statistics. Opportunities exist to participate in consulting and collaborative research through the Statistical Consulting Laboratory [www.statlab.utep.edu](http://www.statlab.utep.edu). More information on the HACASA website.