Caucus of Academic Reps (CAR) Weekly Digest
October 27, 2017

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Positions

(1) South Dakota State University, Department of Mathematics and Statistics: tenure-track faculty position

The Department of Mathematics and Statistics at South Dakota State University invites applications for a nine-month tenure track faculty position in Statistics with an emphasis on mathematical statistics, pattern recognition, large scale inference, spatiotemporal modelling, functional data analysis or sampling theory.

The successful candidate must have an earned Ph.D. in Statistics or closely related field by the starting date of the appointment; broad training in statistical theory as well as in the fields listed above; demonstrated potential to be an effective teacher at the graduate and undergraduate level and to conduct an effective research agenda with the potential to obtain external funding. The candidate must have excellent written and verbal communication skills, and excellent collaborative and interpersonal skills.

Additional desired qualifications include: a research agenda and proven record of funding in mathematical statistics, pattern recognition, large scale inference, spatial and temporal modelling, functional data analysis or sampling theory; experience in the provision of applied statistical consultative services in a variety of scientific disciplines; demonstrated enthusiasm and aptitude to supervise student research, practicum experiences and internships.

A teaching load of one to two courses per semester is expected.

Screening of applications will begin November 1, 2017 and will continue until the position is filled.

To apply, go to https://pa202.peopleadmin.com; search for the SDSU link in the middle of the page; in the next page, the job is listed towards the bottom of the list; then follow the electronic application process.

For questions on the process, contact Human Resources at (605) 688-4128. For more information, contact Dr. Cedric Neumann at Cedric.Neumann@sdsstate.edu or 605-688-6196.
US Naval Academy, Mathematics Department: Assistant Professor of Mathematics, Statistics, or Operations Research

The Mathematics Department at the United States Naval Academy in Annapolis, MD invites applications for one or more tenure-track Assistant Professor (or higher rank) appointments in each of the following three areas: (1) in pure or applied Mathematics, (2) in Statistics, and (3) in Operations Research. The appointments will begin July 31, 2018. The successful applicant must be strongly committed both to teaching at the undergraduate level and to producing high-quality peer-reviewed research. A qualified candidate must be a U.S. citizen and have a Ph.D. in an appropriate field by July 2018. Candidates with a commitment and demonstrated ability to attract and retain students from underrepresented groups (including women) are particularly encouraged to apply. Candidates are directed to our official job postings at www.usna.edu/HRO/jobinfo for details about the jobs and requirements (including a background investigation). Application review will begin on October 30, 2017 and will continue until the positions are filled.

Virginia Tech Social and Decision Analytics Lab, Biocomplexity Institute (Arlington, VA): post doc positions

The Social and Decision Analytics Laboratory (SDAL) is seeking applications for postdoctoral associates in statistics and social and behavioral sciences. SDAL is a leading laboratory in the Biocomplexity Institute (BI) of Virginia Tech. BI performs world-class informatics research in life sciences, social sciences, and human health by integrating theory, modeling and simulation with computational and experimental science in a transdisciplinary, team science research environment.

SDAL combines expertise in statistics and social sciences to develop evidence-based research and quantitative methods to inform policy decision-making and evaluation. The researchers at SDAL span many disciplines including statistics, economics, computational social science, psychology, political science, policy and program evaluation, and data governance and information architecture. SDAL methods integrate statistical learning, network science, cognitive science, behavioral economics, game theory, crowdsourcing, and machine learning.

SDAL researchers address complex social problems by leveraging the diversity of data flows available today including administrative and government records, surveys, social media, and sensors. Through team collaboration, the postdoctoral candidate is expected to develop the capacity to discover, repurpose and redirect these data flows to solve critical social problems.

Computational complexity is at the heart of SDAL research and SDAL leverages all the research capability of BI, along with the High Performance Computing infrastructure. The position will be offered at the rank of postdoctoral associate and will be located in Biocomplexity Institute’s National Capital Region (NCR) location in Arlington, VA. Position reports to Sallie Keller, Professor and Director, Social and Decision Analytics Laboratory (SDAL), Biocomplexity Institute of Virginia Tech.

The ideal candidate will possess:

- Ph.D. in statistics, social and behavioral sciences, or in a very closely related field
- Willingness to work in a team science environment
- Experience with advanced approaches to statistics and data-driven model development
- Experience with statistical software systems such as R, programming, and databases
• Excellent communication skills, both oral and written, demonstrated through the development of publications and delivery of presentations.
• Be a strongly motivated, enthusiastic and self-driven individual who excels in a highly collaborative environment.

Preference will be given to those applicants with:

• Experience using diverse sources of data, both traditional ones such as surveys, and non-traditional ones, such as administrative data and social media.

To apply for this position, please go to www.jobs.vt.edu and search for posting number SR0170360. Review of applications will begin on December 1, 2017 and will continue until the position is filled.

Those best meeting the qualifications will be contacted directly. Candidates who interview should prepare a summary of their coursework to date.

To learn more about the Biocomplexity Institute, please visit us at www.bi.vt.edu

For more information on SDAL, please visit https://www.bi.vt.edu/sdal

(4) University of Georgia, Department of Statistics: assistant professor, statistical machine learning

The Department of Statistics at the University of Georgia invites applications for a tenure-track position at the rank of assistant professor in the area of Statistical Machine Learning, starting August 2018. Applicants must have a Ph.D. degree in Statistics or a closely related discipline by August 1, 2018, and scholarly credentials must reflect a strong commitment to teaching and research in statistical machine learning. Successful applicants are expected to develop a research program that will be competitive for external funding.

To apply for the position, candidates should visit facultyjobs.uga.edu/postings/2909 and provide all of the requested information. At this site, candidates should also upload an application letter, a curriculum vita, a research summary statement that highlights an interest in and contributions to statistical machine learning research, a statement on teaching philosophy, and an unofficial copy of the graduate school transcript. Upon receipt of the application, the three references supplied by the applicant will be asked to submit letters of recommendation at the same website. Applications will be considered until the position is filled, and those received by January 2, 2018, will receive full consideration. For more information about the department and the university, please go to http://www.stat.uga.edu

(5) National Taiwan University, Department of Agronomy: open rank position in biometry or bioinformatics

The Department of Agronomy at National Taiwan University, Taipei, Taiwan, invites applications for one full-time faculty position, starting August 1, 2018. The position is expected to be at Assistant Professor, Associate Professor or Professor. Chinese or English spoken candidates are acceptable. The candidate is required to have a Ph.D. in Agronomy, Statistics, Bioinformatics or related areas. Outstanding candidates
in Biometry and Bioinformatics are strongly encouraged to apply. Applicants having education/research experiences in crop sciences and capable of lecturing Statistics courses are preferable.

The application package should include two letters of reference and four hard copies for the following documents: (1) the curriculum vitae, (2) the publication list, (3) the Ph.D. diploma, (4) teaching plans and course outlines, (5) research proposals, (6) a cover letter indicating the position to be applied and the designated representative publication (the representative paper can be a SCI journal paper, but not a review paper, published after August 1, 2013, or a Ph.D. dissertation if the applicant will be applying for assistant professorship), and (7) reprints of the all publications published after February 10, 2011. For candidates applying for assistant professorship, the transcripts of undergraduate and graduate programs are also required.

Application should be received February 10, 2018 by the department chair Dr. Yann-Rong Lin, at Department of Agronomy, National Taiwan University, Taipei 10617, Taiwan. You might contact Dr. Yann-Rong Lin (e-mail: ylin@ntu.edu.tw) for questions.

(6) University of Florida, Department of Statistics: two open rank positions

The Department of Statistics at the University of Florida invites applications for two open-rank, tenure-track faculty positions to begin August 16, 2018. Successful candidates will have an established research program in statistics with an emphasis on data science and interests in interdisciplinary research contributing to the mission of the UF Informatics Institute.

To apply for the position, candidates should visit http://explore.jobs.ufl.edu/cw/en-us/job/504918/assistant-associate-full-professor-in-statistics-data-science

For full consideration, applications must be submitted online at explore.jobs.ufl.edu/cw/en-us/listing job number 504198, and must include: (1) a letter summarizing the applicant's qualifications, ongoing research directions, and interests in the Department, (2) a complete curriculum vitae, and (3) teaching/research statement. In addition, names and email address for three references must be provided on the application. An email will be sent automatically to your references, requesting them to upload their letter. Applications will be reviewed beginning November 15, 2017 as received and the position will remain open until filled.

(7) Purdue University, Department of Statistics: two assistant professor positions

The Department of Statistics at Purdue University seeks to hire two tenure-track Assistant professors to begin in August 2018 in the area of data science and machine learning. Applicants with interests in novel computational and methodological approaches to complex data, as well as applicants with foundational interests in the computational theory for complex data will be considered.

The Department of Statistics offers a stimulating and nurturing academic environment with research programs in a broad-range of areas, including bioinformatics, computational statistics, data science, mathematical statistics, probability, and spatial statistics. These positions will be split between the Department of Statistics (75%) and the Department of Computer Science (25%), joining other faculty with joint appointments in Computer Science or other departments. Further information about the department is available at http://www.stat.purdue.edu.
All applicants should hold a Ph.D. in Statistics or a related field by the time of employment, and be committed to excellence in research and teaching. Salary and benefits are highly competitive. Please visit www.stat.purdue.edu/hiring to apply. A background check will be required for employment in this position.

Review of applications will begin on December 1, 2017 and will continue until the position is filled. Purdue University's Department of Statistics is committed to advancing diversity in all areas of faculty effort, including scholarship, instruction, and engagement. Candidates should address at least one of these areas in their cover letter, indicating their past experiences, current interests or activities, and/or future goals to promote a climate that values diversity, and inclusion.

(8) University of Cincinnati, Department of Mathematical Sciences: assistant professor in statistics

The Department of Mathematical Sciences is seeking applications for a tenure-track assistant professor position in statistics with research emphasis in statistical and computational methods for big data or related areas. The appointment will begin on August 15, 2018.

The job duties include maintaining an active research program in statistics, mentoring graduate students, teaching both graduate and undergraduate courses in statistics and related areas, and providing service to the Department such as serving on departmental committees. The normal teaching load for research-active faculty is 6 credit hours per semester with a 25% reduction for new faculty in each of the first 2 years and a reduced service role.

The position requires a PhD degree in statistics, or a related field with a focus on statistics, awarded by August 14, 2018. Completed applications consisting of a cover letter, CV, research statement which includes experience (if applicable) and plans, as well as a teaching statement which includes experience (if applicable) and philosophy, and three letters of recommendation should be submitted @ https://www.mathjobs.org/jobs/jobs/10884. Applicants should also submit a CV, a cover letter and a statement (maximum 1 page) on your commitment to diversity and inclusion and how that impacts your professional philosophy, on UC's recruitment system at the link listed in the detailed ad on mathjobs.org. Review of applicants will begin on December 1, 2017. Inquiries concerning the position should be directed to, Dr. Siva Sivaganesan, the Search Committee Chair, or Dr. Shuang Zhang, Head, Department of Mathematical Sciences.

(9) Columbia University Mailman School of Public Health, Department of Biostatistics: open rank faculty position(s)

The Department of Biostatistics at Columbia University's Mailman School of Public Health seeks applicants for open-rank tenure-track or tenured faculty position(s) in Biostatistics.

Successful candidates will maintain an active research program, both in biostatistical methodology and in collaborative research; teach effectively, both to graduate students in biostatistics and to students from outside the department; mentor graduate students; provide service to the department, the school, the university, and the profession.

Competitive candidates will hold a Doctorate degree in biostatistics, statistics, or related quantitative field by the start date. Consideration for tenure requires strong teaching, research and publication records in addition to the ability to secure external funding. Junior faculty candidates should
demonstrate clear potential in research, teaching, and the ability to secure independent funding; senior faculty candidates should be internationally recognized scholars who demonstrate excellence in research, teaching, and mentoring.

Submit a letter of interest accompanied with curriculum vitae to: academicjobs.columbia.edu/applicants/Central?quickFind=65297

Review of applications begins in December 2017 and will continue until the position is filled.

For more information, see these websites: Biostatistics (www.mailman.columbia.edu/academic-departments/...); MSPH (http://www.mailman.columbia.edu/); CUMC (http://www.cumc.columbia.edu/).

Please contact Katy Hardy (ch336@cumc.columbia.edu) with any questions.

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**Funding opportunities and information**

(1) **Monthly Notes from the Director of the National Science Foundation**

http://mailchi.mp/science360/nsf-directors-notes-may-1435025?e=845c412d7e

(2) **NIH NCI National Clinical Trials Network - Network Group Statistics and Data Management Centers (U10)**

See [RFA-CA-17-057](https://www.fundingopportunity.com) for details.
Application Receipt Date(s): January 19, 2018, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on this date.

(3) **NIH: Simulation Modeling and Systems Science to Address Health Disparities**

(R01-Clinical Trial Not Allowed)
See [PAR-18-331](https://www.fundingopportunity.com) for details.
Application Receipt/Submission Date(s): January 10 2018; June 6, 2018; January 8, 2019; June 7, 2019 , by 5:00 PM local time of applicant organization.

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**Workshops and Conferences**

(1) **Register now for the International Conference on Health Policy Statistics (ICHPS)**

Registration is now open for the International Conference on Health Policy Statistics (ICHPS) to be held in Charleston, SC January 10-12, 2018. Join fellow statisticians, economists, policy researchers, practitioners, and other stakeholders in the health policy arena to discuss research needs and solutions to the methodological challenges in the design of studies and analysis of data for health policy research.

This year’s program is now available online: www2.amstat.org/meetings/ichps/2018/onlineprogram/... It features plenary talks by Robert
Califf and Suchi Saria (ww2.amstat.org/meetings/ichps/2018/speakers.cfm). Workshops on January 10 and 12 include a three part session on Causal Inference; sign up for 1-3 sections depending on the topics that interest you most. Other workshops include interpretation of patient reported outcome and complex health survey data, social network analysis, fitting models in Python and Apache Spark, and using data from MEPS, NHANES, and MCBS. Contributed and invited sessions cover a wide variety of topics with participants from around the world. From research on impacts of health policy changes on pre-term births, Medicare expansion, cancer screening methods, environmental health, linking registries and administrative datasets and more, the program includes a variety of methods and applications for everyone.

This year participants also can get to know each other through networking dinners, receptions, and tours of historical Charleston (ww2.amstat.org/meetings/ichps/2018/events.cfm)! Most of the local activities will have additional costs, but we are trying to arrange a group discount where feasible. We will also recognize distinguished researchers on Friday of the conference with Mid-Career and Long-Term Excellence Awards, sponsored by the Health Policy Statistics Section. Finally, if you have a 'hot policy topic' that would work well as a roundtable or town hall discussion, please e-mail us at ichps2018@gmail.com with your topic of interest.

Registration details: ww2.amstat.org/meetings/ichps/2018/registration.cfm Early registration ends November 30.

Hotel and travel information: ww2.amstat.org/meetings/ichps/2018/travelinfo.cfm If the group rate is not available online for your dates, you can contact the hotel directly by phone and they may be able to assist.

Please join us in Charleston, SC in January 2018!

Sincerely,

Liz Stuart, on behalf of the ICHPS Chairs (Bonnie Ghosh-Dastidar and Laura Lee Johnson), and the ICHPS Outreach Committee

(2) WEBINAR - Scott Evans and Ying Liu (Harvard University) Healthy Disruption for Diagnostic Studies through Pragmatic Benefit-Risk Evaluation: Average Weighted Accuracy (AWA)

November 9, 2017, 1:30 p.m. – 2:30 p.m. Eastern time

You are invited to attend the following webinar sponsored by the ASA section on Medical Devices and Diagnostics (MDD). Feel free to forward this invitation to your colleagues or others who may be interested.

Web-Based Lectures

Title: Healthy Disruption for Diagnostic Studies through Pragmatic Benefit-Risk Evaluation: Average Weighted Accuracy (AWA)
Presenter: Scott Evans and Ying Liu (Harvard University)
Date and Time: Thursday, November 9, 2017, 1:30 p.m. – 2:30 p.m. Eastern time
Sponsor: Section on Medical Devices and Diagnostics

Registration Deadline: Tuesday, November 7, at 12:00 p.m. Eastern time
Standard evaluation of diagnostic studies consists of estimating sensitivity, specificity, positive/negative predictive values and likelihood ratios, and overall accuracy. Although useful, these statistics have limited utility for guiding clinical decision-making and do not convey the impact of clinical application. Sensitivity, specificity, PPV and NPV focus on subpopulations. Accuracy targets the entire population but is insufficient for clinical decision-making since sensitivity and specificity are rarely equally important in practice. Evaluation of diagnostic utility depends on prevalence and the relative importance of potential errors (false positive vs. false negative).

Benefit-Risk Evaluation of Diagnostics: A Framework (BED-FRAME) is a strategy for pragmatic evaluation of diagnostics. BED-FRAME introduces weighted accuracy and diagnostic yield, addressing 2 key issues: (1) that diagnostic yield depends on prevalence, and (2) that different diagnostic errors carry different clinical consequences, providing a tool for communicating the expected clinical impact of diagnostic application and the expected tradeoffs of diagnostic alternatives.

We propose the average weighted accuracy (AWA) that targets the entire population and allows differential weighing of sensitivity and specificity for the pragmatic design and analyses of diagnostic studies. It accounts for the potential heterogeneity of the prevalence within subpopulations. The pragmatic design and analyses of studies using AWA will be illustrated with two examples. We will discuss the design of a the RADICAL study, a prospective, single-visit multi-site investigation designed to evaluate the performance of a host response-based diagnostic test (TEST) that will categorize acute respiratory tract illness into bacterial, viral, or neither etiologies. We will also discuss the PRIMERS Study that evaluated the performance of four rapid molecular diagnostic (RMD) platforms for discriminating between resistance vs. susceptibility to β-lactam antibiotics.

Registration Fees:
Member of the Section for Medical Devices and Diagnostics (MDD): $40
ASA Member: $65
Nonmember: $85

Each registration is allowed one web connection and one audio connection. Multiple persons are encouraged to view each registered connection (for example, by projecting the webinar in a conference room).

Register

Access Information
Registered persons will be sent an email with the access information to join the webinar and the link to download and print a copy of the presentation slides.

(3) 73rd Deming Conference on Applied Statistics - REMINDER Discounted Registration ends NOVEMBER 1

The 73rd Deming Conference on Applied Statistics will take place at Tropicana Casino and Resort, Havana Tower, Atlantic City, NJ on December 4-8, 2017. Three (3) keynote talks from regulatory agency staff, Twelve (12) three-hour tutorial sessions as well as a poster session will be held on Monday, Tuesday and Wednesday. Two 2-day short courses will follow on Thursday and Friday. Books used in the
tutorial sessions or the short courses will be sold at around 40% discount rate for attendees. For more information, registration and poster abstract submission, please visit www.demingconference.com:

Awards

(1) SDNS Student Researcher Paper Competition

The Section for Statistics in Defense and National Security (SDNS) of the American Statistical Association is soliciting entries for a student researcher paper competition for the 2018 Joint Statistical Meetings. Each year the section offers the winning author a plaque and a travel award of $1000 to defray costs for attendance and presentation of their work at an ASA sponsored conference. This competition is open to all undergraduate students, graduate students, and researchers that are at most 2 years beyond their terminal degree. The author must be a member of the SDNS Section or should join the section at the time of the paper submission. The contribution may be a theoretical development or it may cover any of the numerous applications related to defense or national security. Papers that have been accepted for publication are not eligible for the competition. The winner will have the opportunity to present her/his paper in a JSM session sponsored by SDNS.

Entrants should submit the following:

- A list of authors and contact information (the contestant must be the first author).
- A double-spaced manuscript in two versions: a regular manuscript with author information and a blinded manuscript without author information or other identifying information (such as references). Both versions should include an abstract.
- A reference letter from a faculty member familiar with the submitted work, stating the status of the applicant and the publication status of the manuscript.

Entries should be sent to Laura Freeman, Chair of the Paper Award Committee, via email at lfreeman@ida.org. The email should include the two versions of the completed manuscript as attachments in PDF format. All entries must arrive by 15 December, 2017. Please include the words "Best Paper Award" in the subject line of the email. Manuscripts will be judged based on relevance and interest of the subject matter, the quality of writing, and of course the quality of the research itself. The result will be announced by January 15, 2018.

Other opportunities or information

(1) Symposium on Statistical Inference: presentation slides

If you didn’t make it to the ASA’s Symposium on Statistical Inference, or even if you did, slides from most of the presentations are available at https://sites.google.com/nonlinearlearning.org/ssi2017 or at http://www2.amstat.org/meetings/ssi/2017/onlineprogram/Program.cfm. For an exciting follow on to this symposium, see the next item in this digest.
(2) Call for papers, special issue of *The American Statistician*: “"Statistical Inference in the 21st Century: A World Beyond p<0.05"

All are invited to submit papers to a special online only, open access issue of *The American Statistician*. Please read the call for papers at [http://ww2.amstat.org/meetings/ssi/2017/callforpapers.cfm](http://ww2.amstat.org/meetings/ssi/2017/callforpapers.cfm)

(3) National Academies Report on Large Computer Science Enrollment Increases May Inform Statistics Increases as Well

For a summary and link to the report, see [this blog](http://www.amstat.org/) by ASA Science Policy Director Steve Pierson.