

# NC ASA CHAPTER BULLETIN

Winter 2020

# **Greetings from NC ASA President Amy Shi**

We have accomplished so much this last year thanks to the support of members like you. NC ASA had an active and engaging 2019, offering professional development events and social and community gathering. Our "State of Statistics: History and Future" Fall Dinner had a great turn-out with attendees enjoyed hearing insights from Prof. David Dickey (NCSU) and Prof. Sudipta Dasmohapatra (Duke).



Amy Shi

Our calendar for 2020 offers a variety of opportunities and options for you. We're kicking off our professional webinar series on Friday, February 28<sup>th</sup>. We are continuing to host monthly socials. The second NC ASA Career Information Fair will take place on Wednesday April 8th, 2020.

NC ASA aims to engage and connect our diverse community. I am exited to serve NC ASA as we continue to grow and look forward to meeting many more members and hearing about your ideas for NC ASA!

#### **NC ASA Calendar - Upcoming Events**

https://community.amstat.org/northcarolina/home

- Bayesian Statistics Webinar (Feb 28th, 12pm to 1p), <u>Registration open!</u>
- Joint meet-up with NC Women in Machine Learning and Data Science on the Women in Data Science Day, Monday March 2nd
- NC ASA Statistics and Data Science Career Information Fair (Wednesday, April 6th, 3pm to 5pm, GSK Training Center)

#### **Student Travel Award**

 NC ASA is pleased to announce a Student Travel Award to support NC Statistics students in travel to North Carolina workshops and conferences.

#### **Local Events**

- New Healthcare Technology Podcast
- Duke DISS Conference
- Duke DataFest 2020

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## **Industry Interests Group Webinars:**

https://community.amstat.org/northcarolina/webinarseries

# Essential Bayes: Paradigm, Techniques, and Software



Fang Chen

Our first webinar in 2020 will be **Friday, Feb 28th** at noon, presented by Fang Chen, Director of the Advanced Statistical Methods Department at SAS.

**Abstract:** This talk provides a high-level overview of Bayesian statistics and its current-day practice from three sides: fundamentals, estimating methods, and software. The presentation starts by in-

troducing the fundamental concepts and basis of the Bayesian paradigm; the methods part covers simulation techniques (such as Markov chain Monte Carlo and Hamiltonian Monte Carlo) and approximation algorithms (such as variational methods and expectation propagation); and the software part surveys current Bayesian packages (BUGS, PROC MCMC, Stan). Given the time constraints, the presentation will be compact and focus on contrasting advantages and pitfalls in various subtopics. The objective is to explore the central issues of the Bayesian paradigm in practice, highlight important advances, and discuss the challenges ahead.

**Bio:** Fang Chen is a Director of the Advanced Statistical Methods Department at SAS. Among his responsibilities are the development of Bayesian analysis software and the MCMC procedure. He also oversees software development in various mixed models, nonlinear models, causal inferences, survival analysis, Bayesian hierarchical models, and discrete choice models. Before joining SAS, he received his PhD in statistics from Carnegie Mellon University.

#### Register in advance for this webinar:

https://ncsu.zoom.us/meeting/register/ uZQvfuqqqT0jn11TFjCu2lKQyBprcL9-Uw

After registering, you will receive a confirmation email containing information about joining the meeting.

More webinars will be coming out featured on Data Science and Machine Learning.

You can watch all of the past <u>NC ASA's webinars</u> on our YouTube channel!

#### 2019 Fall Dinner: Statistics History and Future

The North Carolina Chapter held its annual fall dinner on December 6, 2019. More than sixty statisticians from the NC ASA community gathered to celebrate this year's theme: Statistics: Past and Future. Dr. David A. Dickey (North Carolina State University) took attendees on a walk down memory lane in his talk "The Way We Were" while Dr. Sudipta Dasmohapatra (Duke University) looked to the future in her talk "The Role of Statistics and Statisticians in the Data Science Buzz World." The talks were a perfect mix of humor and insight.

We also presented our annual awards at the dinner. For more information, visit <a href="https://community.amstat.org/">https://community.amstat.org/</a>
<a href="mailto:northcarolina/blogs/2019/">northcarolina/blogs/2019/</a>
falldinner2019



2019 Fall Dinner

We would like to thank the following sponsors: <u>ASA</u>, <u>Duke Master of Biostatistics</u>, <u>Red Hat</u>, <u>RTI International</u>, <u>SAS</u>, and <u>TARGET PharmaSolutions</u>.

## NC ASA Monthly Social

On Jan 23rd, NC ASA members met at HWY 54 Public House (formally called Mattie B's) for chicken wings, a giant calzone and lively conversation. This Pop-up social had a great turnout!

For our March meet up, we encourage everyone to join NC Women in Machine Learning and Data Science (WiMLDS) for National Women in Data Science Day. The event will be Monday March 2nd, 2020, at The Frontier, RTP; 1pm-5:30pm. RSVP required. To RSVP simply join the free WiMLDS NC MeetUp



January Pop Up Social

# 2020 Statistics and Data Science Career Information Fair

We are excited to announce that the NC ASA's Career Fair will be held again this year on **Wednesday April 8** from **3 to 5pm** at GSK Sales Training Center, 41 Moore Dr, Durham, NC 27703.

The purpose of the Career Information Fair is to advertise your organization and the types of work done by statisticians and data scientists in support of your organization. It is an opportunity to connect with students and job seekers who possess highly-sought analytics skills. Active job vacancies are a bonus but are not necessary for participating in the Fair

Last year's inaugural Career Information Fair was attended by more than 75 statistics students and professionals, and more than a dozen organizations in the Triangle area participated. The success of the event was featured in a pair of articles in the ASA's *Amstat News* (here and here).



2019 Career Fair

Participation in the fair is free, but we are also offering a corporate sponsorship opportunity of \$100 with benefits including 1) your organization will be listed as a sponsor on our website, the registration form, and all advertising materials; 2) your organization's representatives will stand out with a sponsor ribbon on their name tags.

# NC ASA Student Travel Award

NC ASA is pleased to announce a Student Travel Award



to support NC statistics students in attending North Carolina workshops and conferences or any American Statistical Association sponsored conference (e.g. JSM, Women in Statistics and Data Science Conference, etc.).

Students can be at any level (e.g. high school, undergraduate, graduate) and special consideration will be given to the impact the conference would have on the person applying.

Awards are for up to \$250 and applications will be reviewed four times in 2020: March 1, June 1, September 1, and December 1

To apply, please visit this website: <a href="https://forms.gle/">https://forms.gle/</a>
X4sxt6LhMzNJ541T7

The application must include a short description (up to 300 words) of how the conference/workshop will benefit the applicant. Students will also need to provide the name and email address of a teacher who can verify their anticipated attendance at the conference or workshop.

Any questions can be directed to NC ASA Chapter Representative, Ryne VanKrevelen (rvankrevelen@elon.edu).

## New Healthcare Technology Podcast Sponsored by the ASA

The officer committees from the Statistical Learning and Data Science (SLDS) Section, Medical Device and Diagnostics Section, and North Carolina Chapter are excited to announce the launch of a new healthcare technology podcast! The show will be hosted by the SLDS Section's webmaster, Glen Wright Colopy. The episode schedule for January through April can be found at the website.

You can also subscribe and enjoy episodes at the following:

Website: www.podofasclepius.com

Podbean: <a href="https://podofasclepius.podbean.com/">https://podofasclepius.podbean.com/</a>

YouTube: https://www.youtube.com/channel/UCkEz2tDR5K6AjlKw-JrV57w

(Coming next week to iTunes, Spotify, and Google Play!)

## **Member Profiles**



Member: Ralph A. DeMasi (ViiV Healthcare)

Ralph has over twenty years of experience in statistics related to HIV/ AIDS drug development and is currently Head of Statistics, ViiV Healthcare, a company engaged in the research, development and commercialization of medicines for HIV/AIDS. Prior to joining ViiV Healthcare, Ralph was most recently Functional Leader for HIV, Hepatitis, and Global Public Health programs within the Infectious Diseases and Vaccines Therapeutic Area of Late Development Clinical Biostatistics of Janssen Pharmaceuticals.

Ralph previously held positions of increasing responsibility at: GlaxoW-ellcome, where he supported HIV Biometrics activities; Trimeris, where

he provided statistical leadership for HIV fusion inhibitors; and Tibotec, where he was responsible for the Biometrics support for HIV and other antiviral and infectious disease programs within the global virology franchise.

Ralph has a master's degree and PhD in Biostatistics from the University of North Carolina.

Ralph is married and lives in Chapel Hill, has two grown children and one golden retriever and enjoys various interests and activities including fitness, yoga, music, drumming and golf.

#### Member: Glen Colopy (Cenduit)

I'm a machine learning scientist at Cenduit in Durham where I model time-series data for automated monitoring and anomaly/outlier detection. Previously, while in graduate school, I was a statistician/data scientist for a medical device startup and the Oxford University Hospital System.



I grew up in Cary, attended William & Mary (BS in math and econ) and later earned an MS in Operations Research at NC State and an MS in statistics at Oxford. In 2018 I graduated from the Computational Health Informatics Lab at the Oxford Institute of Biomedical Engineering.

I have been an active member of the ASA (SLDS section), Institute of Engineering & Technology (IET), Institute of Electrical and Electronics Engineering (IEEE). Two highlights were being a keynote speaker on AI in Personalized Medicine at Chinese Association of Integrated Medicine in Wuhan, China (on behalf of Oxford University) and an invited speaker on "Time-series modelling of physiology" at IEEE Engineering in Medicine and Biology Conference for the last several years. Within the ASA, I've been the webmaster for the SLDS Section since 2015, and also chaired round tables and contributed paper sessions at several JSMs. I've also enjoyed participating in many SAMSI activities, and last March I organized the SAMSI Advances in Precision Medicine Conference at NC state.



### Student Member: Kelly Moran (Duke Univ.)

I am a current fourth year PhD student at Duke. I have my master's in statistics from Duke and my bachelor's in math (with a music minor) from Clemson. Before starting at Duke I spent a year as a post-baccalaureate student at Los Alamos National Laboratory (LANL) working on disease monitoring using internet data sources. This experience made me realize how much I enjoyed working with data, motivating me to apply for grad school and the DOE's Computational Science Gradu-

ate Fellowship (CSGF) program with the hope of learning more. The CSGF gave me the flexibility and funding to return to LANL each summer throughout graduate school to work with the Statistical Sciences group. My post-defense plan is to join LANL as a staff scientist.

My advisor at Duke is Dr. Amy Herring, and my work focuses on the development of statistical methods driven by global and environmental health applications. I have worked on a method for analyzing verbal autopsy data for cause of death determination in resource-limited settings, and on a model for describing variability in toxicological data. Lately I have also had the pleasure to collaborate with Dr. Matt Wheeler at NIOSH/CDC on a fast accurate Bayesian sampler for extremely large Gaussian process regression problems. This summer I will be teaching a course at Duke's marine lab campus, which I am very excited about (it will be my first time being the instructor on record for a class)!

Outside of grad school, I enjoy hiking, rock climbing, swing and blues dancing, graphic design, and playing the oboe. I live with my partner Devin and two cats— all of us spend a lot of time eating and thinking about food.

# 2020 NC ASA Executive Board

President: Amy Shi (SAS)

Vice President: Susan Simmons

(NCSU)

Vice President 2: Betsy McNeil

(RTI)

Secretary: Kristen Foley (US

EPA)

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Chapter Representative: Ryne

Vankrevelen (Elon)

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(NCSU)

All of this information and more is available at our website.

http://community.amstat.org/ northcarolina

Look for us on social media!



@NCAmStat



@NC ASA

#### More local events!

- The 2020 Duke-Industry
  Statistics Symposium
  (DISS2020) will be held
  on April 1-3, 2020. The
  theme for this year will be
  "Emerging Clinical Initiatives in Pharmaceutical Development: Methodology
  and Regulatory Perspectives." The direct link for
  registration is <a href="https://sites.duke.edu/diss/register/">https://sites.duke.edu/diss/register/</a>
- ASA DataFest 2020 will take place at Duke over the April 3 - 5 weekend. This is a data analysis competition where teams of up to five students attack a large, complex, and surprise dataset over a weekend. More details can be found at <a href="https://www2.stat.duke.edu/datafest/">https://www2.stat.duke.edu/datafest/</a>. Signups will open in February 2020.