



NC ASA CHAPTER BULLETIN

Spring/Summer 2019

Greetings from NC ASA President Emily Griffith

The North Carolina Chapter provided a whirlwind of activities for our members this spring. We hosted a Career Information Fair, two professional skills webinars on data science communication and machine learning, a seminar, a professional development workshop for students and young professionals, and several socials. The Executive Board has thoroughly enjoyed hosting events that were so helpful to and well-received by our members and beyond!

NC ASA will continue offering activities through the summer. We will host a trivia takeover social in July. Due to popular demand, we'll offer a second machine learning webinar this summer. We'll also hold joint socials with SAMSI opening workshops in August. In the fall, keep an eye out for more socials, a recycled poster session, two additional professional skills webinars, and a high school teacher training. NC ASA's annual fall dinner's theme for 2019 is Statistics: History and Future.

Please let us know if you have ideas for future events or professional development activities. Have a wonderful summer!



Emily Griffith

NC ASA Calendar - Upcoming Events

<http://community.amstat.org/northcarolina/events/upcomingevents>

Trivia Night Takeover:

- July 15, 2019, Mattie B's Public House, 8:30pm

Introduction to Machine Learning, Part II

- July 2019, date TBD

Socials with SAMSI Opening Workshops

- Tuesday, [August 6th](#) and Tuesday, [August 13th](#), locations TBD

To look for this fall:

- Recycled Poster Session and Social (early September)
- High School Teacher Training (mid-September)
- Data Science Webinar (12 to 1p, Sept. 16th)
- Machine Learning Webinar (12 to 1p, Nov. 1st)
- Fall Dinner: Statistics History and Future! (early December)

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Industry Interests Group Webinars: Machine Learning and Data Science

<https://community.amstat.org/northcarolina/events/webinars>

Machine Learning



Funda Gunes

On May 17th, NC ASA and our Industry Interests Group hosted our first Machine Learning webinar. Funda Gunes, Principle Machine Learning Developer at SAS led an interesting and informative webinar covering fundamentals of modern machine learning. This webinar was such a success, with more than 250 registrants, that we are hosting a second part over the summer.

This two-part webinar describes fundamental concepts of machine learning algorithms and covers key elements of training powerful predictive models. We will discuss overfitting, hyper-parameter tuning, cross validation, regularization, feature engineering, information leakage and ensemble modeling. You will learn how to train and tune modern machine learning techniques such as gradient boosting, neural nets, and random forests, and how to interactively build machine learning pipelines.

Our third machine learning webinar will be **Friday, November 1st** at noon. Titled "Intepretability versus Explainability in Machine Learning," Cynthia Rudin will give a webinar based on NSF's "Statistics at a Crossroads" seminars and discussions.

Cynthia Rudin is an Associate Professor of computer science, electrical and computer engineering, and statistics at Duke University, and directs the Prediction Analysis Lab. She is the recipient of the 2013 and 2016 INFORMS Innovative Applications in Analytics Awards, an NSF CAREER award, was named as one of the "Top 40 Under 40" by Poets and Quants in 2015, and was named by Businessinsider.com as one of the 12 most impressive professors at MIT in 2015. Work from her lab has won 10 best paper awards.



Cynthia Rudin

Data Science

On **Friday, September 16th at noon**, NC ASA is excited to announce the second webinar in our Data Science series. Aric LaBarr will present "Proper Model Validation: The Real Science of Data Science." Registration for this webinar will be available starting in late July.

Aric is passionate about helping people solve and analyze problems with their data. Aric is a faculty member at the Institute for Advanced Analytics, the nation's first master of science in

analytics degree program.

Aric helps innovate the current structure of education to better prepare a modern work force ready to communicate and handle a data driven future. He



Aric LaBarr

develops and teaches courses in statistics, mathematics, finance, risk management, and operations research. His focus is to teach, mentor, and serve students as well as businesses on modern analytic techniques for making data driven decisions.

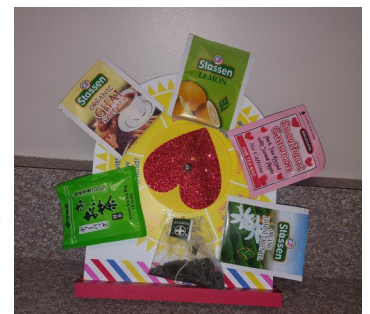
An Uncertain-Tea Seminar



Ralph Smith

The NC ASA was thrilled to host Dr. Ralph Smith, Distinguished University Professor in the Department of Mathematics at NCSU, for an Uncertain-Tea seminar at SAMSI on Tuesday March 19th at 4pm. After selecting from a lovely spread of tea and cookies, attendees gather to hear Ralph present "The Role of Uncertainty Quantification for Predictive Models." The talk was informal and very interesting. It focused on Ralph's definition of "Capital UQ": The synergy between statistics, applied mathematics and domain sciences required to quantify uncertainties in inputs and quantities of interest when models are too computationally complex to permit sole

reliance on sampling-based methods. After Ralph's talk, everyone headed to a nearby restaurant for our March NC ASA social. Again, we'd like to thank NCSU's Charlie Smith for suggesting and helping to organize this 'pun'-ny event.



A way to choose tea at random!

NC ASA Student Corner

<https://community.amstat.org/northcarolina/students>



NC ASA's inaugural **Career Information Fair** in April brought together more than 75 statistics professionals and students at The Frontier of the RTP. Attendees learned about the variety of careers and opportunities available to statisticians and data scientists at different organizations. Over a dozen companies and universities in the Triangle area were represented. The Career Information Fair opened with a series of two-minute elevator speeches from each organization. After that, attendees visited individually with the various companies and universities.

NC ASA thanks the following corporate sponsors for their participation and generous support of the fair: Duke University Department of Statistical Science, G1 Therapeutics, Rho, RTI International, SAS, Sciome, and Xylem.

LinkedIn and Your Professional Presence on Social Media

NC ASA hosted this mini-workshop on Monday, May 13th. Students and young professionals heard Sarah Egan Warren, Head of Technical Communication and April Wilson, Head of Career Services from [NCSU's Institute for Advanced Analytics](#), discuss how having a professional presence on LinkedIn can help to create options for and define your career path. Sarah and April were engaging and energetic, and participants contributed interesting insights and questions throughout the event.



One participant reached out to say "Thank you NCASA - These events have been very valuable", while another said "There was a lot of useful information and I came away with a lengthy list of action items to improve my use of LinkedIn as a networking tool." We would like to thank Sarah Egan Warren and April Wilson for volunteering their time and knowledge, and [SAMSU](#) for hosting the event.

High School Teacher Training

Keep an eye out for registration for a one-day workshop for High School Statistics teachers. NC ASA will partner with the NC School of Science and Math, SAS JMP and RTI International to offer this workshop this fall. Designed to provide training in topics relevant to the AP curriculum, as well as hands on training using SAS JMP, attendees received a curriculum advancement certificate and a 1-year license for JMP® Student Edition to use in their classroom.



NC ASA is thrilled that Breda Munoz (RTI) is organizing this event. Please email Breda (breda@rti.org) for more information about this event.

2019 NC ASA Executive Committee

President: Emily Griffith (NCSU)

Vice President: Amy Shi (SAS)

Vice President 2: Susan Simmons (NCSU)

Secretary: Kristen Foley (US EPA)

Treasurer: Brian Gaines (SAS)

Chapter Representative: Ryne Vankrevelen (Elon)

2019 Liaisons to the Executive Board Outreach and Communications Director: Lakisha Armstrong (Walden)

Industry Interests Group Core Strategic Team Lead: Sujit Ghosh (NCSU)

Ambassador to Small Colleges and Universities: Stephanie Zimmer (RTI)

High School Outreach: Breda Munoz (RTI)

Member Profiles



Member: Fang K. Chen

I am a development director in the Advanced Analytics Division at SAS Institute. I grew up in China, got my bachelor's degree from Hampshire College in Massachusetts, and earned a Ph.D. in Statistics from Carnegie Mellon University in 2004. I subsequently followed my wife, who is a professor in the Statistics Department at NCSU, to North Carolina and joined SAS Institute.

Professionally, I specialize in Bayesian computation. In that field, I developed PROC MCMC in SAS/STAT, a sampling-based procedure that provides full Bayesian solutions to user-specified models. In recent years, I have become more involved in management, overseeing a large area of software development in

the statistics group. I am also involved with professional societies, such as the ASA and the ICOSA, serving on committees, organizing sessions, and teaching short courses. I find these volunteer professional activities to be very fulfilling, as it is a great way to meet people and to extend my statistical influence and connections.

My wife and I have two kids, Ian (13) and Bella (10). As a family, we enjoy travel, visiting many places in the U.S. and around the world. Our favorite destinations are Taipei, Kyoto, and Paris---places where, among other things, cuisines reign supreme. For my leisure time, I like playing badminton and I also obsessively watch Lee Chong Wei's badminton matches on the internet/YouTube.

New Member: Karen Chiswell

I work as a Statistical Research Scientist at the Duke Clinical Research Institute (DCRI) in Durham, NC, where I collaborate with clinical and quantitative colleagues on the design, execution, and analysis of clinical research studies. My work focuses on observational studies including large cardiovascular registries, and clinical care databases linked with electronic health record data. I teach an elective course in applied survival analysis in the Duke Master of Biostatistics program. My other statistical interests include study design; linear and non-linear mixed effects models; statistical thinking, mentoring and learning; and development of statistical work processes for quality and reproducibility.

Before joining the DCRI in 2010, I worked as a statistician in HIV and antibacterial drug discovery at GlaxoSmithKline. I have a PhD in Statistics from North Carolina State University, and a Bachelor of Science in Agriculture from the University of Natal in South Africa. I spend my free time outdoors in Granville county walking my dogs, and riding or caring for my horse. I enjoy fiction, which I mostly 'read' by audiobook during my work commute.

I have been a member of the ASA for many years, but only recently joined the NC Chapter. I am delighted to find the Chapter active and look forward to meeting local statisticians and participating in many of the interesting events.



Student Member: Yixuan (Alice) Huang (Wake Forest University)

I am a rising senior at Wake Forest University with a double major in mathematics and computer science. Currently, I am working on research questions related to price dynamics, with Dr. Kenneth Berenhaut in the Department of Mathematics and Statistics. During the summer of 2018, I collaborated with Dr. Michael Tait and Dr. Robert Won, resulting in the manuscript "Sidon Sets and 2-caps in \mathbb{Z}^2 "; the paper is in press and is available at <https://arxiv.org/abs/1809.05117>. During the current semester, I have been serving as a teaching assistant for the course MST 369/669 (Statistical Learning). I am looking forward to

gaining further exposure to theoretical and applied topics in statistics, and employing my knowledge and experience to address problems in industry and elsewhere.

I enjoy playing badminton and reading books, and recently have begun studying piano. One of my favorite books is "*Ten Lectures about Life*" by Jiang Xun. It has provided me with many insights into how to live a happy life.

NC ASA Interest Groups

Industry Interests Group:

NC ASA's IIG provides a forum for communication among members. If you are interested in participating in the IIG on behalf of yourself, your company, or your organization, please contact Sujit Ghosh at [Su-jit.Ghosh@ncsu.edu](mailto:Sujit.Ghosh@ncsu.edu).

Scholastic Council: NC

ASA's Scholastic Council facilitates communication and coordinates activities between the Chapter and North Carolina schools, colleges, and universities. Each institution is invited to have a Faculty Contact and a Student Representative on the council. Contact NC ASA President Emily Griffith for more information at Emily.Griffith@ncsu.edu.


Consulting Connections:


This web-based communications platform connects North Carolina's consulting community. This group works in coordination with the Industry Interests Group to host events including socials, webinars, and meet and greets. Contact NC ASA President Emily Griffith for more information at Emily.Griffith@ncsu.edu.

Find us online! 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