Hiring 2020/2021 at Statistics Department at Texas A&M University

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- About "Statistics at a Crossroads" from 2018

- NSF DMS Statistics Picture

- TRIPODS and TAMIDS at TA&MU

From "Statistics at a Crossroads"

October, November 2018

Major Goals:

- Develop a 10-20 year vision for the field of statistics

- Identify opportunities and challenges

- Create a vibrant community, maintain an appropriate balance between sub-fields

- Steering Committee: Jim Berger, **Xuming He**, David Madigan, Susan Murphy, Jon Wellner, and Bin Yu

National Science Foundation

Major findings/recommendations

- **Research for better practice**

  - Emphasize Practical Relevance, Real-life Problems, Evolve with the Science

  - **Emerging applications**, some examples:

    - Precision Health;   Statistics in Physical Sciences

    - Quantum Information Science;   Anonymized Data

- **Training in modern skills**

  - Critical thinking, modeling, computation, communication

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Overview—NSF Statistics Y2019

Statistics FY19

- Submission: 322
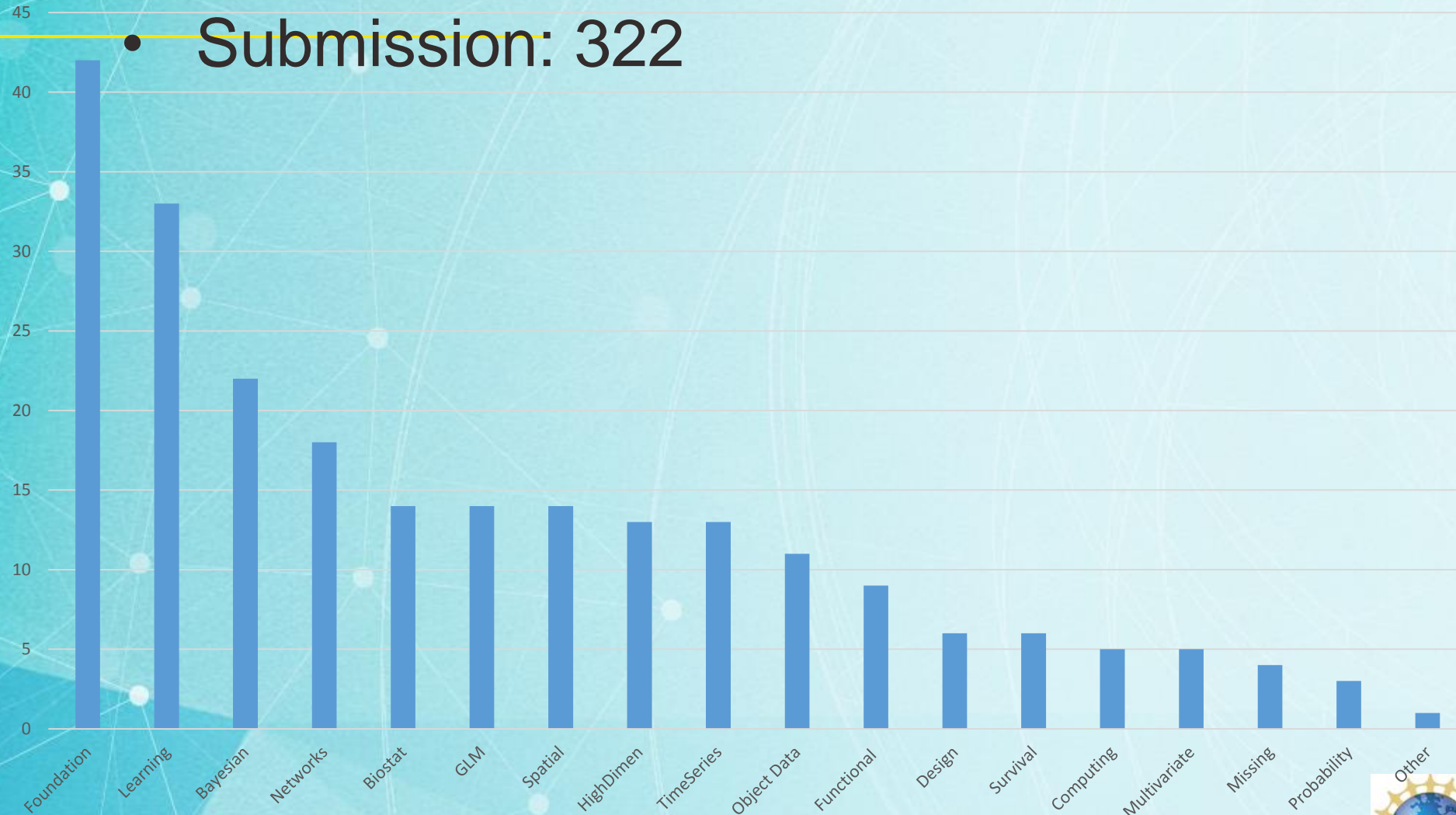
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Major Research Trends

➢ A shift from classical mathematical statistics to data science and methodological research driven by applications (e.g., biomedical, environmental, social)

Networks & Graphs
Scalability
Machine Learning/AI
Causal Inference
Toplological Data Analysis

Design of Experiments
Classical Inference
Classical Decision Theory

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From our job ad …

"…[The department] … is particularly interested in expertise in the broad area of data science. Evidence of interdisciplinary research and focus on computational aspects is a plus."

- Strategic Hiring – Modern and Complementary Research Areas. **Interplay of Departmental Intellectual Diversity - Critical Mass**
- Nontraditional hires
- Cluster/Interdisciplinary Initiative.
- Possible joint positions

  (Stat-ECE, Stat-Biology, Stat-CS, etc.)

- Phase I TRIPODS lead by a Statistician
- TAMIDS – New Institute for Data Science

TAMU Stat Strengths
Spatial
NP, SemiPar, Functional
Bayes
Biostatistics/Bioinformatics
Time Series
High Dimensional Data/Big Data/Machine Learning

Irina Gaynanova

- Department of Statistics at TAMU
- Hiring this season
- Some advice to candidates on academic job market

Texas A&M University

- Bryan/College Station area (200K)
- Inside Houston / Austin /Dallas triangle (1.5/1.5/3 hours to each)
- FY 2019: > $950 million in Research Expenditures
- ~70K total student enrollment

At a glance

- 26 tenure-track faculty
- 11 instructional faculty
- Grant BS/MS/PhD in Statistics
- Online MS Statistics
- **Forthcoming**: Data Science degrees in collaboration with other departments and TAMIDS (TAMU Institute of Data Science)

TEXAS A&M UNIVERSITY
Statistics

Data-Science **Computational** Bayesian **Environmental** High dimensional **Statistics** Nonparamatric **Semiparamatric** Functional **Estimation** **Regression** Machine Learning **Astrostatistics** Spatio-Temporal **Bioinformatics** Time Series **Network Graphs** Stochastic Process

Are we hiring? **Yes!**

- **Multiple tenure-track** Assistant Professor/starting Associate Professor positions

- All areas of research are welcome, but particular interest in the broad area of **data science**. Interdisciplinary research and computational research are a plus.

- Distinguishing characteristics – **demonstrated potential** for
  - excellence in **research** (a healthy mix of statistics/machine learning methodology grounded in applications)
  - excellence in **teaching** (experience and thoughtfulness)
  - excellence in **service** (professional activities, collegiality)

- **Rolling review** of applications until the positions are filled

Did COVID change things? **Yes!**

- **Before:** 1 full day on-site interview
- **Now:** flexible

  - **Stage 1:** candidate talk online, meeting with hiring committee online

  - **Stage 2 (flexible):** on-site/online physically distant individual meetings
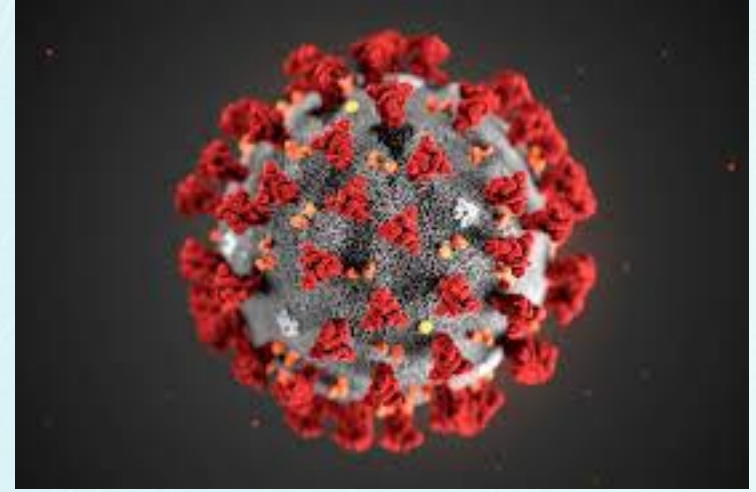
Some advice to job candidates (opinion)

Application materials

- Have a **website** with your picture, and make sure it's clickable from your CV

- Have a **well-formatted CV** focused on your academic accomplishments (too many new fonts with weird emphasis distracts from main picture)

- Do not lump unpublished research together with accepted manuscripts

- Spend time on a **personal teaching statement** that has **concrete** examples and is not way over the top (some members read it)

Some advice to job candidates (opinion)

Giving an online interview talk

- Dress nice
- Test your camera/background/headset
- Test the screen sharing/technology platform
- Turn off your phone
- Pre-open chat window, browser, slides and allocate them on your screen so you don't have to move them mid-talk
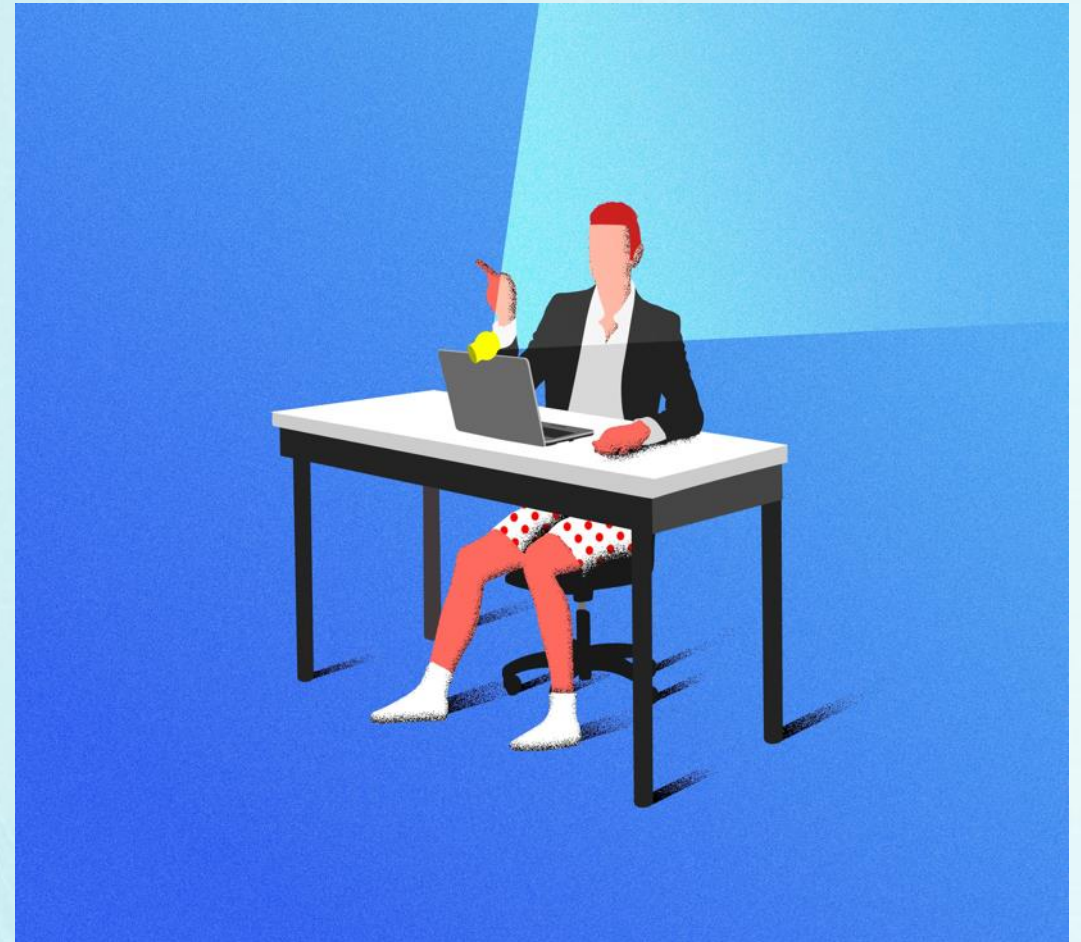
Some advice to job candidates (opinion)

Giving an online interview talk

- Beware of "ZOOM fatigue" – lots of pictures/color/font to convey main messages; visible cursor if using; do not go over 45 min
- Do not try to cover all your papers – pick 1 story to tell (overall research overview 1-2 slides in the end is fine)
- Hard to engage the audience – some strategies: links in chat, frequent reminders to ask questions, asking questions yourselves

Some advice to job candidates (opinion)

Meeting with faculty

- Be ready with a list of questions. Common themes:
  - Graduate student support
  - Interdisciplinary collaborations
  - Internal funding opportunities
  - Info about the city/activities
  - Mentoring mechanisms
- Ask multiple groups the same questions
- Look up people in advance, use online login info as a reminder of "who is who"

Some advice to job candidates (opinion)

Final thoughts

- Notify other places you interviewed/scheduled to interview of any competing offers you receive
- Do not use another offer as a bargaining chip if you are not seriously considering it – it's a small world
- Things are crazy with COVID – be ready to be flexible, but do not hesitate to voice logistical considerations. If you are invited for an interview – the department wants to interview you!