

# Suman Majumder

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## Education

Aug 2016– Jun 2020 Ph.D., Statistics, North Carolina State University  
Thesis Title: Spatiotemporal inference and applications for large datasets  
Advisor: Brian J. Reich  
Jul 2014–May 2016 M.Stat., Indian Statistical Institute  
Jul 2011–May 2014 B.Stat., Indian Statistical Institute

## Experience

Jul 2020–Jun 2021 Postdoctoral Fellow, Department of Nutrition, Harvard T. H. Chan School of Public Health  
Jan 2020–Jun 2020 Research Assistant, Department of Entomology and Plant Pathology, North Carolina State University  
Aug 2018–Dec 2019 Teaching Assistant, Department of Statistics, North Carolina State University  
Aug 2017–Jun 2018 Research Assistant, The Statistical and Applied Mathematical Sciences Institute (SAMSI)  
Aug 2016–May 2017 Teaching Assistant, Department of Statistics, North Carolina State University

## Honors and Awards

2020 ASA ENVR Student Paper Award Winner  
2018 - current Member of NC Alpha chapter of Statistics, *Mu Sigma Rho*  
2011 - 2016 KVPY Scholarship, Dept. of Science & Technology, Govt. of India

## Publications

### Peer-Reviewed Journals

- [1] **Majumder, S.**, Guan, Y., Reich, B. J., O'Neill, S. and Rappold, A. G. (2020); [Statistical Downscaling with Spatial Misalignment: Application to wildland Fire PM<sub>2.5</sub> Concentration Forecasting](#); Journal of Agricultural, Biological and Environmental Statistics.
- [2] **Majumder, S.**, Biswas, A., Roy, T., Bhandari, S., and Basu, A. (2020); [Statistical Inference Based on a New Weighted Likelihood Approach](#); Metrika.
- [3] Haskett, M. E., **Majumder, S.**, Kotter-Grühn, D. and Gutierrez, I. (2020); [The role of university students' wellness in links between homelessness, food security, and academic success](#). Journal of Social Distress and the Homelessness
- [4] Biswas, A., **Majumder, S.**, Niyogi, P. G. and Basu, A. (2020); [A Weighted Likelihood Approach to Problems in Survival Data](#). Sankhyā.
- [5] Haskett, M. E., Kotter-Grühn, D. and **Majumder, S.** (2020); [Prevalence and correlates of homelessness and food insecurity among university students](#) Journal of College Student Development, 61(1), 109-114.
- [6] Biswas, A., Roy, T., **Majumder, S.**, and Basu, A. (2015). [A new weighted likelihood approach](#). Stat, 4(1), 97-107.

### Under Review

- [1] Dorman, S. J., Hopperstad, K. A., Reich, B. J., **Majumder, S.**, Kennedy, G., Reisig, D. D., Greene, J. K., Reay-Jones, F. P. F., Collins, G., Bacheler, J. S., and Huseeth, A. S. (2021+); Landscape-level variation in *Bt* crops predict *Helicoverpa zea* (Lepidoptera: Noctuidae) resistance in cotton agroecosystems; *Submitted, Pest Management Science*
- [2] Giffin, A., Gong, W., **Majumder, S.**, Rappold, A. G., Reich, B. J., Yang, S. (2021+); Estimating intervention effects on infectious disease control: the effect of community mobility reduction on Coronavirus spread; *Submitted, Biometrics*; [ArXiv](#)
- [3] **Majumder, S.**, Guan, Y., Reich, B. J., Saibaba, A. K. (2020+); Kryging: Geostatistical analysis of large-scale datasets using Krylov subspace methods; *Submitted, Journal of Computational and Graphical Statistics*; [ArXiv](#)

### Technical reports

- [1] Biswas, A., Niyogi, P. G., **Majumder, S.**, Bhandari, S. K., Ghosh, A., and Basu, A. (2018). [Theoretical Properties of a New Weighted Likelihood Estimator for Right Censored Data](#).

## **Presentations**

### **Invited Talks**

- [1] Statistical Downscaling with Spatial Misalignment; Center for Air pollution, energy and health Research, Webinar series, 2020.

### **Contributed Talks**

- [1] Kryging: Geostatistical analysis of large-scale datasets using Krylov subspace methods; ENAR 2021 Spring Meeting, 2021.
- [2] Statistical Downscaling with Spatial Misalignment: Application to Wildland Fire PM<sub>2.5</sub> Concentration Forecasting; ENVR Student Paper Awards Section, Joint Statistical Meetings, 2020.
- [3] Statistical Inference Based on a New Weighted Likelihood Approach; International Conference on Robust Statistics, Kolkata, India, 2015.

### **Posters**

- [1] Statistical Downscaling with Spatial Misalignment: Application to Wildland Fire PM<sub>2.5</sub> Emissions Forecasting; Joint Statistical Meetings, 2019.
- [2] Statistical Downscaling with Spatial Misalignment: Application to Wildland Fire PM<sub>2.5</sub> Emissions Forecasting; IMS/ASA Spring Research Conference, 2019.
- [3] Statistical Downscaling with Spatial Misalignment: Application to Wildland Fire PM<sub>2.5</sub> Emissions Forecasting; SAMSI Graduate Poster Session, 2018.
- [4] Statistical Downscaling with Spatial Misalignment: Application to Wildland Fire PM<sub>2.5</sub> Emissions Forecasting; IISA International Conference on Statistics, 2018.

## **Professional Activities**

- Served as a reviewer for JABES, CSDA, Ecological Applications, SN Applied Sciences.

## **Social Activities**

- Volunteer, Service Raleigh, 2019.
- Head, Sponsorship Committee, Integration: the annual techno-cultural fest of Indian Statistical Institute, Kolkata, 2015, 2014.
- Member, Literary Activities Committee, Boys' Hostel of Indian Statistical Institute, 2014, 2013, 2012.
- Head, Advertising Committee, Reunion Celebration Committee of Rahara Ramakrishna Mission Boys' Home, 2013.