

## Soyoung Jeon

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CONTACT	College of Business Department of Economics, Applied Statistics and International Business MSC 3CQ, PO Box 30001 New Mexico State University Las Cruces, NM 88003-8001 sjeon@nmsu.edu
EDUCATION	<p><b>University of North Carolina at Chapel Hill</b> Ph.D. in Statistics and Operations Research, May 2012  Title: <i>Max-stable Processes for Threshold Exceedances in Spatial Extremes</i> Advisor: Richard L. Smith</p> <p><b>Seoul National University</b> M.S. in Statistics, February 2007 B.S. in Statistics, February 2005</p>
PROFESSIONAL EXPERIENCE	<p><i>Assistant Professor</i> August 2020–present Department of Economics, Applied Statistics and International Business New Mexico State University, Las Cruces, NM</p> <p><i>Statistician</i> 2016–2020 Border Biomedical Research Center The University of Texas at El Paso, El Paso, TX</p> <p><i>Postdoctoral Researcher</i> 2012–2015 Earth and Environmental Sciences Division Lawrence Berkeley National Laboratory, Berkeley, CA</p>
TEACHING EXPERIENCE	<p><i>Assistant Professor</i> Department of Economics, Applied Statistics, and International Business New Mexico State University – A ST 311 Statistical Applications Fall 2020 - Spring 2023 (except Spring 2022) – A ST 505 Statistical Inference I Fall 2020 - Spring 2023 – A ST 598 Special Research Problems Spring 2022 - Spring 2023</p> <p><i>Instructor</i> Department of Statistics and Operations Research University of North Carolina at Chapel Hill – STOR151 Basic Statistics Spring 2010, Summer 2011 – STOR155 Introduction to Statistics Summer 2010</p> <p><i>Teaching Assistant</i> 2007–2012 Department of Statistics and Operations Research University of North Carolina at Chapel Hill Courses: STOR151 Basic Statistics, STOR635 Probability, STOR655 Statistical Theory, STOR664/665 Applied Statistics I &amp; II</p> <p><i>Instructor</i> 2006–2007 Department of Statistics Seoul National University, Seoul, South Korea Courses: SAS/SPSS Lab Courses</p>

## PUBLICATIONS

Aguilera, J., **S. Jeon**, A. Raysoni, L.D. Whigham and W-W. Li, Decreased Moderate to Vigorous Physical Activity Levels Are Associated With Increased Traffic Related Air Pollutants in Children with Asthma. Accepted to Journal of Environmental Health.

Niemann, D., Z. Akinjobi, **S. Jeon** and H.H. Rahman. (2023). Arsenic Exposure and Prevalence of Human Papillomavirus in the US Male Population. *Environmental Science and Pollution Research*. 30(1), 1263–1275.

**Jeon, S.**, Y.-F. Lee, and K. Koumi. (2022). COVID-19 Vaccination: Sociopolitical and Economic Impact in the United States. *Epidemiologia*. 3(4), 502–517. PMID: PMC9680412.

Henríquez G., L. Méndez, E. Castañeda, A. Wagler, **S. Jeon**, and M. Narayan. (2022). Preclinical Model to Evaluate Outcomes of Amyloid Cross-Toxicity in the Rodent Brain. *ACS Chemical Neuroscience*. 13(20), 2962–2973. PMID: 36194532.

Thabet, A. M., A. N. Adams, **S. Jeon**, J. Pisquiy, R. Gelhert, T. DeCoster and A. Abdelgawad. (2022). Malpractice Lawsuits in Orthopedic Trauma Surgery: A Meta-analysis of the Literature. *OTA International*. 5(3):e199. PMID: PMC9580045.

Rangel, A., A. U. Raysoni, M. C. Chavez, **S. Jeon**, J. Aguilera, L. D. Whigham and W.-W. Li. (2022). Assessment of Traffic-Related Air Pollution (TRAP) at Two Near-Road Schools and Residence in El Paso, Texas, USA. *Atmospheric Pollution Research*. 13(2):101304. <https://doi.org/10.1016/j.apr.2021.101304>

Thabet, A., M. Craft, J. Pisquiy, **S. Jeon**, A. Abdelgawad and W. Azzam. (2022). Tibial Shaft Fractures in the Adolescents: Treatment Outcomes and the Risk Factors for Complications. *Injury*. 53(2), 706–712. PMID: 34862039.

Herrera-Molina, E., T.E. Gill, G. Ibarra-Mejia, **S. Jeon**. (2021). Associations between Dust Exposure and Hospitalizations in El Paso, Texas, USA. *Atmosphere*. 12(11):1413. <https://doi.org/10.3390/atmos12111413>

Aguilera, J., **S. Jeon**, M. Chavez, G. Ibarra-Mejia, J. Ferreira-Pinto, L. D. Whigham and W.-W. Li. (2021). Land-Use Regression of Long-Term Transportation Data on Metabolic Syndrome Risk Factors in Low-Income Communities. *Transportation Research Record*. 2675(11), 955–969.

Ibarra-Mejia, G., M. Lusk, and **S. Jeon**. (2021). Stress, Anxiety, and Depression among Latinx University Students during the COVID-19 Pandemic. *Social Development Issues*. 43(1), 55–67.

Thabet, A. M., C. Gerzina, F. Sala, **S. Jeon**, G. Lovisetti, A. Abdelgawad, T. A. De-Coster and W. Azzam. (2021). Outcomes and Complications With Treatment of Open Tibial Plafond Fractures With Circular External Fixator. *Foot & Ankle International*. 42(6), 723–733. PMID: 33559484.

Dabash, S., C. Gerzina, G. Prabhakar, A. M. Thabet, **S. Jeon**, and S. Heinrich. (2019). Screw Fixation for Supracondylar Humerus Fractures in Children: a Report of Seventeen Cases. *European Journal of Orthopaedic Surgery & Traumatology*. 28(7), 1–7. PMID: 30334099.

Kim, B.G., N. H. Park, S. B. Lee, **S. Jeon**, J. H. Park, S. W. Jung, I. D. Jeong, S. J. Bang and J. W. Shin. (2018). The Risk of Hepatocellular Carcinoma within and beyond the First 5 years of Entecavir in Korean Patients with Chronic Hepatitis B. *Liver International*. 38(12), 2269–2276. PMID: 30052303.

Koebel, M. R., A. Cooper, G. Schmadeke, **S. Jeon**, M. Narayan and S. Sirimulla.

(2016). S···O and S···N Sulfur Bonding Interactions in Protein–Ligand Complexes: Empirical Considerations and Scoring Function. *Journal of Chemical Information and Modeling*. 56(12), 2298–2309. PMID: 27936771.

**Jeon, S.**, C. Paciorek and M. F. Wehner. (2016). Quantile-based Correction and Uncertainty Quantification of Extreme Event Attribution Statements. *Weather and Climate Extremes*. 12, 24–32.

**Jeon, S.**, Prabhat, S. Byna, J. Gu, W. D. Collins and M. F. Wehner. (2015). Characterization of Extreme Precipitation within Atmospheric River Events over California. *Advances in Statistical Climatology, Meteorology and Oceanography*. 1, 45–57.

**Jeon, S.** and R.L. Smith, (2012) Dependence Structure of Spatial Extremes using Threshold Approach. Available at arXiv:1209.6344v1

Cooley, D., J. Cisewski, R. Erhardt, **S. Jeon**, E. Mannshardt, B. Omolo and Y. Sun. (2012). A Survey of Spatial Extremes: Measuring Spatial Dependence and Modeling Spatial Effects. *REVSTAT Statistical Journal*. 10(1) 135–165.

Casanova, L. M., **S. Jeon**, W. A. Rutala, D. J. Weber and M. D. Sobsey. (2010). Effects of Air Temperature and Relative Humidity on Coronavirus Survival on Surfaces. *Applied and Environmental Microbiology*. 76(9) 2712–2717. PMCID: PMC2863430.

#### TECHNICAL REPORT

**Jeon, S.**, J. Aguilera, L. D. Whigham and W.-W. Li. “Association of Traffic and Related Air Pollutants on Cardiorespiratory Risk Factors From Low-Income Populations in El Paso, TX.” Prepared for Center for Advancing Research in Transportation Emissions, Energy, and Health (CAR-TEEH) USDOT University Transportation Center. February 1, 2021. Available at <https://rosap.ntl.bts.gov/view/dot/56858>

Li, W.-W., **S. Jeon**, W. Hargrove, L. D. Whigham. “Healthy Living, Children’s Respiratory Health, and Traffic-Related Air Pollution in an Underserved Community.” Prepared for Center for Advancing Research in Transportation Emissions, Energy, and Health (CAR-TEEH) USDOT University Transportation Center. July 31, 2019.

#### MANUSCRIPTS IN PROGRESS

Cerra, S., M. K. Shukla, **S. Jeon** and S. O’Meara. Determining the ion accumulation in soil when reverse osmosis concentrate is applied via drip irrigation under *Atriplex canescens* and *Atriplex lentiformis*. Submitted to Agricultural Water Management.

#### PRESENTATIONS

S. Jeon, E. Herrera-Molina, T. E. Gill, and G. Ibarra-Mejia. *Associations Between Dust and Thunderstorm Exposures and Hospitalizations in Lubbock, Texas, USA*. American Geophysical Union, Chicago, IL, Dec. 2022 (Poster)

Z. Akinjobi, E. Herrera-Molina, T. E. Gill, G. Ibarra-Mejia, and S. Jeon. *Effect of Dust Storm Exposure on Hospital Admissions for Genitourinary System Diseases in El Paso, Texas*. 2022 Southern NM Fall Dust Symposium, Oct. 2022 (Virtual)

D.E. Sanchez, K. Caudle, J.E. Simson, S. Jeon, and A.M. Thabet. *Clinical and radiographic outcomes of patella fractures at a level I trauma center: a report of 327 cases*. 2022 OTA Annual Meeting, Tampa, FL, Oct. 2022

D. Neimann, H. Rahman, Z. Akinjobi, and S. Jeon. *Arsenic Exposure and Risk of Human Papillomavirus in the US Male Population*. 2022 Annual Society of Toxicology Conference, San Diego, CA, Mar. 2022

E. Herrera-Molina, T. E. Gill, G. Ibarra-Mejia, and S. Jeon. *Health Effects of Dust Storms in El Paso, TX*. 2022 Southern Arizona Dust Storm Workshop, Mar. 2022

(Virtual)

M. Funk, A. Cibils, A. Cox, L. Bender, S. Jeon, M. McIntosh, S. Spiegel, R. Estell, S. Fuentes-Soriano. *Oryx (Oryx gazella gazella) – Cattle Interactions in Chihuahuan Desert*. The 75th Annual Society for Range Management (SRM) Meeting, Albuquerque, NM, Feb. 2022 (Poster)

K. Koumi, S. Jeon, and Y.-F. Lee. *Impact of Socio-economic Status on the COVID-19 Vaccination: What can we learn for the path of recovery?* 2021 NMSU Research and Creativity Week, Las Cruces, NM, Nov. 2021

Z. Akinjobi, H. Rahman, D. Neimann, and S. Jeon. *Could the Prevalence of HPV Be Accounted for by the Level of Arsenic Content?* 2021 NMSU Research and Creativity Week, Las Cruces, NM, Nov. 2021

E. Herrera-Molina, T. E. Gill, G. Ibarra-Mejia, and S. Jeon. *Associations of Dust Event Exposures and Hospitalizations*. Southern New Mexico & Western U.S. Dust Symposium, Oct. 2021 (Virtual)

A.M. Thabet, A. N. Adams, S. Jeon, J. Pisquiy, R. Gelhert, T. DeCoster, and A. Abdelgawad. *Malpractice Lawsuits in Orthopedic Trauma: A Critical Analysis of the Recent Literature*. AAOS 2021 Annual Meeting, San Diego, CA, Sep. 2021 (Poster)

S. Jeon. *Microbiome Studies using Principal Component Analysis*. Korean Association for the Study of Intestinal Diseases (KASID) Symposium, Seoul, Korea, Feb. 2021 (Invited, Virtual)

J.A. Aguilera, S. Jeon, M. Chavez, G. Ibarra, J.Ferreira-Pinto, L.D. Whigham, W-W. Li. *Land Use Regression Modeling to Assess Effects of Long-Term Transportation Data on Metabolic Syndrome Risk Factors of Low-Income Communities in El Paso, TX*. TRB 100th Annual Meeting, Washington, DC, Jan. 2021 (Virtual)

S. Jeon, J.A. Aguilera, M. Chavez, G. Ibarra, L.D. Whigham, and W-W. Li. *Effects of Long Term Traffic-related Air Pollution on Metabolic Syndrome Risk Factors in Low-income Communities*. 2020 NMSU Research and Creativity Week, Las Cruces, NM, Nov. 2020 (Virtual)

S. Jeon, J.A. Aguilera, M. Chavez, G. Ibarra, L.D. Whigham, and W-W. Li. *Land Use Regression Modeling to Assess Effects of Long-Term Transportation Data on Metabolic Syndrome Risk Factors of Low-Income Communities in El Paso, TX*. The 77th Joint Advisory Committee (JAC) for the Improvement of Air Quality in the Ciudad Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New México Air Basin, Las Cruces, NM, July 2020 (Virtual)

S. Jeon, J.G. Staniswalis, A.U. Raysoni, and W-W. Li. *Determination of the optimal sample size for a limited longitudinal cohort study of children's respiratory health and air quality*. 2019 Transportation, Air Quality, and Health Symposium, Austin, TX, Feb. 2019 (Poster)

W-W. Li, S. Jeon, M. Chavez, I. Ramirez, A. Rangel, A. Urbina, S. Vallamsundar, R. Farzaneh. *Determination of Background PM<sub>2.5</sub> Concentrations at Near-road Air Monitors*. 2019 TRB Annual Meeting, Washington, DC, Jan. 2019

W-W. Li, M. Chavez, S. Jeon, A. Rangel, A. Urbina, I. Ramirez, S. Vallamsundar, R. Farzaneh. *Contribution of Traffic Emissions to Near-Road PM<sub>2.5</sub> Air Concentrations as Implied by Urban-scale Background Monitoring*, 2019 TRB Annual Meeting, Washington, DC, Jan. 2019

A.U. Raysoni, S. Jeon, J.A. Aguilera, L.D. Whigham, A. Rangel, M. Chavez, I.M. Ramirez, and W-W. Li. *Airway inflammation and lung function measurements in children with asthma at two road-side elementary schools in El Paso, TX*. The American Public Health Association (APHA)'s 2018 Annual Meeting, San Diego, CA, Nov. 2018

W-W. Li, S. Jeon, A.U. Raysoni, J.A. Aguilera, L.D. Whigham, A. Rangel, M. Chavez, and I.M. Ramirez. *Associations of respiratory responses with traffic air pollution for asthmatic children attending a roadside school*. The Air Sensors International Conference, Oakland, CA, Sep. 2018

J.A. Aguilera, S. Jeon, M. Chavez, L.D. Whigham, and W-W. Li. *Moderate to vigorous physical activity levels negatively correlate with traffic related air pollutants in children with asthma attending a school near a freeway*. The 73rd Joint Advisory Committee (JAC) for the Improvement of Air Quality in the Ciudad Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New México Air Basin, Las Cruces, NM, Sep. 2018

S. Jeon, C. Paciorek, and M.F. Wehner, *Scale Mismatch Problem in the Analysis of Central U.S. Temperature Anomaly*, Extreme Value Analysis, Ann Arbor, MI, June, 2015

S. Jeon, Prabhat, S. Byna, W.D. Collins and M.F. Wehner, *Characterization of Extreme Precipitation under Atmospheric River Events*, Joint Statistical Meeting, Boston, MA, August, 2014

S. Jeon and W.D. Collins, *Spatial Dependence between Extreme Precipitations in CMIP5*, 12th IMSC, Jeju, Korea, 2013

S. Jeon and R.L. Smith, *Threshold Approach in the Analysis of Spatial Extremes*, Joint Statistical Meetings, San Diego, CA, 2012

S. Jeon and R.L. Smith, *Max-stable Processes for Threshold Exceedances in Spatial Extremes*, 7th Conference on Extreme Value Analysis, Lyon, France, 2011

#### GRANTS AND PROJECTS

##### *Current Research Support*

**NM Water Resources Research Institute (WRRI) FY22-23 Student Water Research Grant** PI/Faculty Sponsor (06/01/2022–05/31/2023)

*Statistical Characterization of Central Components of the Rio Grande Compact and Rio Grande Project*

Student Researcher: Claudia Trueblood

##### *Submitted*

**NIH U54 Partnership for the Advancement of Cancer Research** Role: PI  
*Systemic understanding of cellular mechanisms of metabolic adaptations in cancer*

PI (Fred Hutch): Lucas Sullivan

##### **NIOSH R21**

Role: Co-PI

*Expressed microRNA signatures in circulating exosomes after mechanical loading of the uninjured tendon*

PI: G. Ibarra-Mejia (not funded)

##### *Completed Research Support*

**2022 NMSU COB Fulton Research Mini-grant** PI (08/15/2022–11/15/2022)

*Characterization of Extreme Air Quality and Impacts of Climate Change*

**University of New Mexico: Geographical Management of Cancer Health Disparities (GMAP) Region 3 Pilot Award** Co-I (03/01/2022–08/31/2022)

*Trends in renal cell carcinoma incidence and mortality by occupation and US climate region from 1975-2018*

PI: G. Ibarra-Mejia

**2021 NMSU COB Fulton Research Mini-grant** PI (03/16/2021–05/31/2021)

*Health Data Analytics and Training: Evaluating urine arsenic levels and developing associations of urine arsenic with human papillomavirus (HPV) risk*

**UTC CAR-TEEH 69A3551747128** PI (09/01/2019–08/31/2020)

*Association of traffic and related air pollutants on cardiorespiratory risk factors from low-income populations in El Paso, TX*

Co-PI: W-W. Li, J. Aguilera, L. Whigham

**NIH U01 AI129783-01A1** Biostatistician (08/15/2018–07/15/2020)

*New chemotherapy regimens and biomarkers for Chagas disease*

PI: I. Almeida

**UTC CAR-TEEH 69A3551747128** Co-PI (05/01/2017–10/31/2018)

*Healthy living and traffic-related air pollution in an underserved community*

PI: W-W. Li

#### AWARDS

##### **Professional Certificate**

Sustaining Member (20+ hours earned at Digital Learning and the Teaching Academy), Teaching Academy, NMSU, 2020-21

##### **Teaching Award**

Excellence in Teaching Award, Department of Statistics and Operations Research, UNC-Chapel Hill, 2011

##### **SAMSI Travel Award**

Travel Award by SAMSI to attend *SAMSI/Sandia Summer School on Uncertainty Quantification*, June 20–24, 2011

#### COMMITTEE MEMBERSHIP

##### **Ph.D. Dissertation Committee**

John Agnew, Department of Entomology, NMSU

Molly Reichenborn, Department of Animal and Range Sciences, NMSU

Claudia Trueblood, Water Science and Management Program, NMSU

Sarah Cerra, Department of Plant and Environmental Sciences, NMSU

Estrella Herrera-Molina (University of Texas at El Paso, Ph.D., 2021)

Matthew McIntosh, Department of Animal and Range Sciences, NMSU (Ph.D., 2021)

Juan Aguilera (University of Texas at El Paso, Ph.D., 2020)

##### **M.S. Thesis Committee**

Tasnim Shamma, Water Science and Management Program, NMSU

Micah Funk, Department of Animal and Range Sciences, NMSU

Alexander Armijo, Department of Entomology, NMSU

Hana Hernandez, Department of Plant and Environmental Sciences, NMSU

Yumi Maharjan, Department of Mathematics, NMSU (M.S. Non-Thesis, 2022)

Marcos Banda, Department of Civil Engineering, UTEP (M.S., 2022)

Leonardo Vazquez, Department of Civil Engineering, UTEP (M.S., 2022)

##### **Applied Statistics Program – M.S. Committee**

Bahar Karimi, Applied Statistics Program, NMSU (M.S. Non-Thesis, 2022)

Zainab Akinjobi, Applied Statistics Program, NMSU (M.S. Non-Thesis, 2022)

PROFESSIONAL SERVICE	ASA Archives and Historical Materials Committee	2022–present
	NMSU Undergraduate Research Advisory Council Committee	2022–present
	Search Committee, NMSU Department of Applied Statistics	2022
	AST Assessment Committee, NMSU Department of Applied Statistics	2022-23
	Faculty Advisor, ASA NMSU Student Chapter	2022–present
	Mentor, Maximizing Access to Research Careers (MARC) Program	2020–present
	Judge at NMSU Research and Creativity Week	Nov 2020 & 2021
	Task Force Member, NMSU Covid-19 Sampling Plan	Jun-Aug 2020
REVIEWER FOR JOURNALS	<i>Atmosphere</i>	2022
	<i>Geoscientific Model Development</i>	2019
	<i>Journal of Hydrometeorology</i>	2014
	<i>Journal of Applied Meteorology and Climatology</i>	2014
	<i>Journal of the Korean Statistical Society</i>	2011
PROFESSIONAL MEMBERSHIPS	Member of American Statistical Association	2007–present
	Member of WNAR of the International Biometric Society	2020–present
	Member of IEEE Advancing Technology for Humanity	2016–2019
	Member of American Geophysical Union	2012–2015