Rishikesh Yadav

rishikesh.yadav@kaust.edu.sa, https://cemse.kaust.edu.sa/people/person/rishikesh-yadav
Building 1, 4th Floor, Desk: 4200 - WS06, KAUST, Thuwal 23955, Saudi Arabia

---

Research Interests

Extreme Value Theory, Spatial Statistics, Bayesian Inference, Machine Learning, Environmetrics.

Education

Ph.D. in Statistics (Aug., 2017 - present)
King Abdullah University of Science and Technology, Thuwal, Saudi Arabia.
Thesis title: Bayesian Modeling of Spatial Extremes.
Supervisor: Professor Raphaël Huser.

Master (M.Sc.) in Mathematical Statistics (Aug., 2014 - Jun., 2016)
Indian Institute of Technology Kanpur (IITK), Kanpur, Uttar Pradesh, India.

Bachelor (B.Sc.) in Mathematics and Statistics (Jul., 2011 - Jun., 2014)
University of Allahabad (AU), Allahabad, Uttar Pradesh, India.

Achievements and Awards

Our team secured the **third place** in the Data Challenge organized as part of the EVA 2021 Conference (Jun., 28 - Jul., 2, 2021).

Secured **All India Rank (AIR) - 40** in IIT JAM - 2014 (Joint Admission Test for M.Sc.) in Mathematical Statistics.

Received **Gold medal award** for the best academic performance in bachelor degree at the University of Allahabad.

Papers

Yadav, R., Huser, R., Opitz, T. (2021). Spatial hierarchical modeling of threshold exceedances using rate mixtures. *Environmetrics* **32**(3), e2662.

Yadav, R., Huser, R., Opitz, T. (2021+). A flexible Bayesian hierarchical modeling framework for spatially dependent peaks-over-threshold data. In preparation.

Yadav, R., Huser, R., Opitz, T., Lombardo, L. (2021+). Joint modeling of landslide counts and sizes using marked log-Gaussian point processes . In preparation.

Cisneros, D., Gong., Y., Hazra, A., **Yadav, R.**, Huser, R. (2021+). A combined statistical and machine learning approach for spatial prediction of extreme wildfire frequencies and sizes. In preparation.

Relevant Ph.D. Coursework

Statistics of Extremes (STAT 380), Spatial Statistics (STAT 370), Bayesian Statistics (STAT 240), Computational Statistics (STAT 340), Contemporary Topics in Computational Science (AMCS 394E), Machine Learning (CS 229),

	Special Topics in Statistics (STAT 390), Functional Data Analysis (STAT 360), Advanced Statistical Inference (STAT 320)
Course Projects	Modeling the non-stationarity and dependence structure of air pollutants within an Italian city - with Prof. Raphaël Huser at KAUST.
	A spatial semi-conditional independence model for threshold exceedances using Bayesian mixtures - with Prof. Marc G. Genton at KAUST.
	Imbalanced regression and extreme value prediction in non-stationary time series data - with Prof. Xiangliang Zhang at KAUST.
	Modeling the performance of the Portuguese students using Bayesian hierarchical mixture model - with Prof. Hernando Ombao at KAUST.
	Simulation study on the characterization of distribution function through moment of order statistics - with Prof. Sharmishtha Mitra at IIT Kanpur.
Conferences	Extreme Value Analysis Conference 2021, Jun., 28 - Jul., 2, Virtual.
	13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2020), Dec., 19-21, 2020, Virtual.
	Joint Statistical Meeting (JSM 2020), Aug., 1-6, 2020, Virtual
	11th International Conference on Extreme Value Analysis, Jul., 1 - 5, 2019, Zagreb, Croatia.
	Joint Statistical Meeting (JSM 2019), Jul., 27 – Aug., 1, 2019, Colorado Convention Center in Denver, Colorado, United States.
	Masterclass in Bayesian Statistics at CIRM (Marseille, France), Oct., 22-26, 2018.
Poster Workshops Visits	Poster presentation of *Spatial hierarchical modeling of threshold exceedances using rate mixtures* at 2019 and 2020 Statistics and Data Science Workshop, KAUST.
	Yearly Workshop for CRG Project: "Statistical Estimation and Detection of Extreme Hot Spots, with Environmental and Ecological Applications" KAUST, Thuwal, Saudi Arabia, Feb., 4 - 6, 2019.
	Virtual Workshop on "Statistical Estimation and Detection of Extreme Hot Spots, with Environmental and Ecological Applications", Feb., 1 - 3, 2021.
	Visited Thomas Opitz at INRAE, France, for collaborative research purpose, for two weeks in March 2018 and September 2018.
Teaching Experience	Teaching assistant of the course *Linear Models (STAT 230)* for the 2018 - 19

Fall semester.

Teaching assistant of the course *Probability and Statistics (STAT 220)* for the 2020 - 21 Fall semester.

Work Experience

Associate Biostatistician at Novartis Healthcare Pvt. Ltd., Hyderabad, India, Jun., 2016 - Jul., 2017.

Summer Internship on "Employment and Unemployment situation in cities area of BIMAROU states of India" at National Sample Survey Office, Allahabad, Ministry of Statistics & Programming Implementation (MOSPI) Government of India, May 1 - Jun., 30, 2015.

Technical Expertise

R, C, SAS, LaTeX, Microsoft Excel, Microsoft Word and PowerPoint.

Membership

American Statistical Association (ASA).

Personal Details

D.O.B: May 2, 1995
Languages: Hindi & English

Declaration

I hereby declare that information given above is true of my best knowledge.
Rishikesh Yadav