Wasiur Rahman Khuda Bukhsh

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▬▬▬ Professional Experience

Oct 2021 –   **Assistant Professor**, *School of Mathematical Sciences*, The University of Nottingham, University Park, Nottingham, NG7 2RD, UK

Jan 2020 –
Sep 2021   **President's Postdoctoral Scholar**, *Mathematical Biosciences Institute and the College of Public Health, The Ohio State University*, Columbus, Ohio, USA

Oct 2018 –
Dec 2019   **Postdoctoral Researcher**, *Mathematical Biosciences Institute and the College of Public Health, The Ohio State University*, Columbus, Ohio, USA

Jan 2014 –
Sep 2018   **Research Associate**, *Technische Universität Darmstadt*, Darmstadt, Germany
Department of Electrical Engineering and Information Technology

Jun 2011 –
Dec 2013   **Manager**, *ICICI Bank*, Mumbai, India
Advanced Analytics, Business Intelligence Unit (BIU)

▬▬▬ Education

2014 – 2018   **Ph.D. (Dr. rer. nat.), summa cum laude**, *Department of Electrical Engineering and Information Technology, Technische Universität Darmstadt*, Germany

2009 – 2011   **Master of Statistics (M.Stat.)**, *Indian Statistical Institute*, Kolkata, India

2006 – 2009   **Bachelor of Science (B. Sc.) with Honours in Statistics**, *University of Calcutta*, Kolkata, India

▬▬▬ Publications

Peer-reviewed journal publications

[1] Colin Klaus, Matthew Wascher, **Wasiur R. KhudaBukhsh**, and Grzegorz Rempała. *Mathematical Biosciences and Engineering*, 2022. Accepted for publication. Preprint: `https://arxiv.org/abs/2208.00417`.

[2] Kai Cui, **Wasiur R. KhudaBukhsh**, and Heinz Koeppl. Hypergraphon mean-field games. *Chaos*, 2022.

[3] **Wasiur R. KhudaBukhsh**, Casper Woroszylo, Grzegorz Rempała, and Heinz Koeppl. A functional central limit theorem for SI processes on configuration model graphs. *Advances in Applied Probability*, page 1–33, 2022.

[4] Colin Klaus, Matthew Wascher, **Wasiur R. KhudaBukhsh**, Joseph H. Tien, Grzegorz A.

Rempała, and Eben Kenah. Assortative mixing among vaccination groups and biased estimation of reproduction numbers. *The Lancet Infectious Diseases*, 22:P579–581, 5 2022.

[5] Francesco Di Lauro*, **Wasiur R. KhudaBukhsh***, István Z. Kiss, Eben Kenah, Max Jensen, and Grzegorz Rempała. Dynamic survival analysis for non-markovian epidemic models. *Journal of the Royal Society Interface*, 2022. *Both authors contributed equally and are joint first authors.

[6] Kai Cui, **Wasiur R. KhudaBukhsh**, and Heinz Koeppl. Motif-based mean-field approximation of interacting particles on clustered networks. *Physical Review E*, 105, 4 2022.

[7] Harley Vossler, Pierre Akilimali, Yuhan Pan, **Wasiur R. KhudaBukhsh**, Eben Kenah, and Grzegorz A. Rempała. Analysis of individual-level epidemic data: Study of 2018-2020 ebola outbreak in democratic republic of the congo. *Scientific Reports*, 12, 2022.

[8] Ido Somekh*, **Wasiur R. KhudaBukhsh***, Elisabeth Dowling Root*, Greg Rempala, Eric Simoes, and Eli Somekh. Quantifying the Population-level Effect of COVID-19 Mass Vaccination Campaign in Israel: A Modeling Study. *Open Forum Infectious Diseases*, 2022. *Equal contribution.

[9] **Wasiur R. KhudaBukhsh***, Hye-Won Kang, Eben Kenah, and Grzegorz Rempała. Incorporating age and delay into models for biophysical systems. *Physical Biology*, 18(1), 2021. (*Invited paper).

[10] **Wasiur R. KhudaBukhsh**, Boseung Choi, Eben Kenah, and Grzegorz Rempała. Survival dynamical systems: individual-level survival analysis from population-level epidemic models. *Journal of the Royal Society Interface Focus*, 10(1), 2020.

[11] **Wasiur R. KhudaBukhsh**, Arnab Auddy, Yann Disser, and Heinz Koeppl. Approximate lumpability for markovian agent-based models using local symmetries. *Journal of Applied Probability*, 56, 9 2019.

[12] Hye-Won Kang*, **Wasiur R. KhudaBukhsh***, Heinz Koeppl, and Grzegorz Rempała. Quasi-steady-state approximations derived from a stochastic enzyme kinetics. *Bulletin of Mathematical Biology*, 81(5):1303–1336, 2019. *joint first authors.

[13] Saumya Yashmohini Sahai, Saket Gurukar, **Wasiur R. KhudaBukhsh**, Srinivasan Parthasarathy, and Grzegorz A. Rempała. A Machine Learning Model for Nowcasting Epidemic Incidence. *Mathematical Biosciences*, 2021.

[14] **Wasiur R. KhudaBukhsh**, Sounak Kar, Bastian Alt, Amr Rizk, and Heinz Koeppl. Generalized cost-based job scheduling in very large cluster systems. *IEEE Transactions on Parallel and Distributed Systems*, 31(11):2594–2604, 2020.

[15] Boseung Choi, Sydney Busch, Dieudonné Kazadi, Benoit Ilunga, Emile Okitolonda, Yi Dai, Robert Lumpkin, Omar Saucedo, **Wasiur R. KhudaBukhsh**, Joseph Tien, Marcel Yotebieng, Eben Kenah, and Grzegorz A. Rempała. Modeling Outbreak Data: Analysis of a 2012 Ebola Virus Disease Epidemic in DRC. *BIOMATH*, 8(2), 2019.

[16] **Wasiur R. KhudaBukhsh**, Amr Rizk, Sounak Kar, and Heinz Koeppl. Provisioning and performance evaluation of parallel systems with output synchronization. *ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)*, 4(1), 3 2019.

[17] Bastian Alt, Markus Weckesser, Christian Becker, Matthias Hollick, Sounak Kar, Anja Klein, Robin Klose, Roland Kluge, Heinz Koeppl, Boris Koldehofe, **Wasiur R. KhudaBukhsh**, Mahdi Mousavi, Martin Pfannemueller, Amr Rizk, Andy Schuerr, and Ralf Steinmetz. Transitions: A protocol-independent view of the future internet. *Proceedings of the IEEE*, 107(4):835–846, 4 2019.

[18] **Wasiur R. KhudaBukhsh**, Julius Rückert, Julian Wulfheide, David Hausheer, and Heinz Koeppl. SCHEDMIX: Heterogeneous strategy assignment in swarming-based live streaming. *Open Transactions on Communication Systems (OTCS)*, 2019. Accepted for publication.

Peer-reviewed conference proceedings

[19] **Wasiur R. KhudaBukhsh**, Bastian Alt, Sounak Kar, Amr Rizk, and Heinz Koeppl. Collaborative uploading in heterogeneous networks: Optimal and adaptive strategies. In *IEEE International Conference on Computer Communications (INFOCOM)*, 4 2018. $< 20\%$ acceptance rate. Best-in-Session Presentation Award.

[20] **Wasiur R. KhudaBukhsh**, Amr Rizk, Alexander Frömmgen, and Heinz Koeppl. Optimizing Stochastic Scheduling in Fork-Join Queueing Models: Bounds and Applications. In *IEEE International Conference on Computer Communications (INFOCOM)*, 5 2017. $\sim 20\%$ acceptance rate.

[21] Adrian Šošić, **Wasiur R. KhudaBukhsh**, A. M. Zourbir, and Heinz Koeppl. Inverse reinforcement learning in swarm systems. In *AAMAS Workshop on Transfer in Reinforcement Learning*, May 2017. Available: `http://www.tirl.info/proceedings/2017/SosicEtal-Inverse.pdf`.

[22] Adrian Šošić, **Wasiur R. KhudaBukhsh**, A. M. Zourbir, and Heinz Koeppl. Inverse reinforcement learning in swarm systems. In *International Conference on Autonomous Agents & Multiagent Systems (AAMAS)*, 5 2017. $\sim 26\%$ acceptance rate, Best Paper Award Finalist.

[23] **Wasiur R. KhudaBukhsh**, Julius Rückert, Julian Wulfheide, David Hausheer, and Heinz Koeppl. Analysing and Leveraging Client Heterogeneity in Swarming-based Live Streaming. In *IFIP Networking Conference (IFIP Networking) and Workshops*, 5 2016. $\sim 26\%$ acceptance rate.

[24] Mahdi Mousavi, Hussein Al Shatri, **Wasiur R. KhudaBukhsh**, Heinz Koeppl, and Anja Klein. Cross-Layer QoE-based Incentive Mechanism for Video Streaming in Multi-Hop Wireless Networks. In *IEEE 86th Vehicular Technology Conference (VTC)*, 9 2017.

Preprints/Submitted

[25] **Wasiur R. KhudaBukhsh**, Caleb Deen Bastian, Matthew Wascher, Colin Klaus, Mark Weir, Eben Kenah, Elisabeth Root, Joseph H. Tien, and Grzegorz Rempała. Projecting COVID-19 Cases and Subsequent Hospital Burden in Ohio. *Journal of Theoretical Biology*, 2022. Submitted. Preprint: `https://doi.org/10.1101/2022.07.27.22278117`.

[26] **Wasiur R. KhudaBukhsh**, Sat Kartar Khalsa, Eben Kenah, Grzegorz Rempała, and Joseph Tien. COVID-19 dynamics in an Ohio prison. 2021. Submitted. Preprint: `https://www.medrxiv.org/content/10.1101/2021.01.14.21249782v1`.

[27] Matthew Wascher, Patrick Schnell, **Wasiur R. KhudaBukhsh**, Joseph Tien, and Grzegorz Rempała. Monitoring SARS-CoV-2 Transmission and Prevalence in Populations under Repeated Testing. 2022. Submitted. Preprint: `https://doi.org/10.1101/2021.06.22.21259342`.

Manuscripts in progress

[28] **Wasiur R. KhudaBukhsh** and Eben Kenah. Semiparametric pairwise regression for infectious disease transmission with external sources of infection.

[29] Hye-Won Kang, **Wasiur R. KhudaBukhsh**, and Grzegorz A. Rempała. Multiscale approximations of the togashi–kaneko reaction system. 2022.

[30] Yushuf Sharker*, Zaynab Diallo*, **Wasiur R. KhudaBukhsh**, and Eben Kenah. Pairwise accelerated failure time models with external sources of infection and epidemiological studies of infectious disease transmission. *Joint first authors.

Thesis and technical notes

[31] **Wasiur R. KhudaBukhsh**. *Model reductions for queueing and agent-based systems with applications in communication networks*. PhD thesis, Technische Universität, Darmstadt, 2018. Available at: `http://tuprints.ulb.tu-darmstadt.de/7588/`.

[32] **Wasiur R. KhudaBukhsh**, Mark Sinzger, and Heinz Koeppl. Bounds on the spectral radius of real-valued non-negative kernels on measurable spaces. Technical report, 2018. arXiv preprint: https://arxiv.org/abs/1808.00258.

Awards and Funding

Awards

1. 2019 President's Postdoctoral Scholars Program (PPSP) of the Ohio State University
2. Best-in-Session Presentation Award at the IEEE International Conference on Computer Communications (IEEE INFOCOM), Honolulu, Hawaii, USA, 2018.

Funding

Successful:
1. Faculty of Science International Collaboration Fund ($4,375$ GBP)
2. LMS Undergraduate Research Bursary 2022 (900 GBP + matching 900 GBP from the University of Nottingham)
3. LMS Research in pairs grant 2022 (1200 GBP)
4. Institute of Mathematical Statistics New Researchers Conference 2022 (1860 USD)
5. American Institute of Mathematics (AIM) SQuaREs (Structured Quartet Research Ensembles) (along with Hye-Won Kang, Lea Popovic, Greg Rempała, Ruth Williams and Felipe Campos)
6. The German Academic Exchange Service (DAAD) travel grant (Kongressreise) to participate in the Annual Meeting of the SMB in Sydney, Australia, 2018 (~ 2000 EUR)

Unsuccessful:
1. NIH K99/R00 Pathway to Independence Award 2020

Presentations

Summary: 29 invited and 23 contributed/local talks. 7 poster presentations.

Invited talks

1. Theoretical Statistics and Mathematics Seminar, Indian Statistical Institute, New Delhi, December 14, 2022.
2. Invited speaker, Workshop on Non-equilibrium Phenomena in Physics and Biology, Asia Pacific Center for Theoretical Physics, South Korea, December 5-8, 2022.

3. Invited speaker, Self-Organizing Systems Workshop, Technische Universität Darmstadt, Germany, December 2, 2022.
4. Mini-symposium speaker at SIAM Conference on Uncertainty Quantification, April 15, 2022.
5. Statistics and Probability Seminar, University of Nottingham. February 3, 2022.
6. Mathematics of Reaction Networks (MoRN) seminar, January 27, 2022.
7. Math Bio seminar, The Ohio State University, virtual, November 4, 2021
8. Stochastic Systems seminar talk, Department of Mathematics, University of California San Diego, virtual, October 21, 2021
9. Guest lecture on infectious disease epidemiology, The Ohio State University, virtual, September 16, 2021
10. American Institute of Mathematics (AIM) Workshop on "Limits and control of stochastic reaction networks", July 28, 2021
11. Colloquium at the Department of Mathematics, Simon Fraser University, virtual, April 23, 2021
12. Special session at the Joint Mathematics Meetings (JMM), virtual, January 6-9, 2021
13. IDI Virtual COVID-19 Symposium, December 3, 2020
14. Seminar, Institute of Applied Mathematics and Mechanics, University of Warsaw, November 30, 2020
15. Seminar, Institute of Applied Mathematics and Mechanics, University of Warsaw, November 23, 2020
16. Biostatistics seminar, the Ohio State University, Columbus, OH, USA, October 30, 2020
17. Math-Bio seminar, Virginia Tech, virtual, September 23, 2020
18. International Webinar Series on Artificial Intelligence and Machine Learning, virtual, September 18, 2020
19. Workshop on "Life on Planet Earth: Above and Below", MBI, OSU, August 11, 2020
20. International Webinar, Departments of Mathematics and Physics, Bidhan Chandra College, virtual, July 18, 2020
21. Special session of Data Science, Business Intelligence Unit, ICICI Bank, Mumbai, India, July 24, 2020
22. Special session at the Erdős Institute Python Bootcamp, May 2020 (jointly with Marissa Renardy)
23. Biostatistics Seminar, the Ohio State University, Columbus, OH, USA, February 28, 2020
24. Mathematical Modeling and Statistical Analysis of Infectious Disease Outbreaks, CIRM, Marseille, France, February 21, 2020
25. Mini-symposium speaker at the Annual Meeting of the SMB, Montreal, Canada, 2019
26. Mini-symposium speaker at the International Conference on Mathematical Methods and Models in Biosciences (BioMath), June 2019, Poland
27. BIRS-CMO workshop on "Scaling Limits of Dynamical Processes on Random Graphs", May 2019, Oaxaca, Mexico
28. Mini-symposium speaker at the Annual Meeting of the SMB and the JSMB, Sydney, Australia, 2018
29. Cloud Computing, Machine Learning And Networking Research (CLAN) Lab, Purdue University (May, 2017), Host : Vaneet Aggarwal

Contributed talks

1. BIRS Workshop on "Preparing for the next pandemic", June 12-17, 2022
2. Annual Meeting of the Society for Mathematical Biology, June 13-17, 2021
3. Workshop on Mathematical and Computational Biology, June 10-11, 2021
4. The SIAM Conference on Applications of Dynamical Systems (DS21), May 23-27, 2021

5. ENAR Spring Meeting, March 14-17, 2021
6. Mathematical Biosciences Institute (MBI) Seminar, Columbus, Ohio, USA, March 04, 2021
7. Joint Mathematical Epidemiology and Math Education SMB Subgroup Meeting, Feb 7-8, 2021
8. Applied Mathematics Seminar, Department of Mathematics, The Ohio State University, November 19, 2020
9. Bernoulli–IMS One World Symposium 2020, virtual, August 25, 2020
10. Mini-symposium speaker at the Annual Meeting of the SMB, virtual, August 19, 2020
11. Joint Statistical Meetings 2020, virtual, August 2-6, 2020
12. Mini-symposium speaker at SIAM Conference on Mathematics of Data Science 2020 (virtual), June 2020
13. MBI Workshop on Mathematical and Computational Methods in Biology, May 6, 2020
14. International Indian Statistical Association Conference (IISA 2019), Mumbai, India, December 28, 2019
15. Latin American Congress of Probability and Mathematical Statistics (CLAPEM) XV, Merida-Yucatán, México, December, 2019
16. Mathematical Biosciences Institute (MBI) Seminar, Columbus, Ohio, USA, October, 2019
17. Joint Statistical Meetings (JSM) - American Statistical Association, Colorado, USA, 2019
18. Stochastic Processes and their Applications, Bernoulli Society, Northwestern University, July 2019, USA
19. International Conference on Mathematical Methods and Models in Biosciences (BioMath), June 2019, Poland
20. Mathematical Biosciences Institute (MBI) Seminar, Columbus, Ohio, USA, 2019
21. IEEE International Conference on Computer Communications (IEEE INFOCOM), Honolulu, Hawaii, USA, 2018
22. IEEE International Conference on Computer Communications (IEEE INFOCOM), Atlanta, GA, USA, 2017
23. IFIP Networking Conference and Workshops, Vienna, Austria, 2016

Poster presentations

1. Annual Meeting of the Society for Mathematical Biology, Heidelberg, September 19-23, 2022
2. 22nd Meeting of New Researchers in Statistics and Probability, George Mason University, USA, August 4, 2022
3. Mathematical Models in Evolutionary Biology conference, CIRM, Marseilles, France, February 10-14 2020
4. Annual Meeting of the Infectious Disease Institute, The Ohio State University, September 2019, Columbus, OH, USA
5. Joint Statistical Meetings (JSM) - American Statistical Association, Colorado, USA, 2019
6. CMCF Algorithms and Methods for Single Cell Genomics, University of California, Irvine, June 2019, USA
7. BIRS-CMO workshop on "Scaling Limits of Dynamical Processes on Random Graphs", May 2019, Oaxaca, Mexico

Teaching Experience

University of Nottingham, UK

1. MATH 2010: Probability Models and Methods
   School of Mathematical Sciences, The University of Nottingham
   Role: Instructor

Terms: Spring 2022 ($\sim$270 students), Spring 2023
2. MATH 4045 Mathematical Finance stream,
   School of Mathematical Sciences, The University of Nottingham
   Role: Instructor (jointly with Fabrizio Leisen)
   Terms: Autumn 2022

The Ohio State University, USA

1. STAT 4201: Introduction to Mathematical Statistics
   Department of Statistics, The Ohio State University, USA
   Role: Instructor
   Terms: Fall semester 2019 ($>$ 120 students)
2. PUBHBIO7193: Individual studies in Biostatistics (Advanced stochastic epidemiology)
   Division of Biostatistics, The Ohio State University, USA
   Role: Instructor (jointly with Eben Kenah)
   Terms: Summer semester 2019

Technische Universität Darmstadt, Germany

1. Computational Methods for Systems and Synthetic Biology (CMSSB)
   Department of Electrical Engineering and Information Technology, Technische Universität Darmstadt, Germany
   Role: Teaching Assistant
   Terms: Summer semester 2016, Summer semester 2017

▬▬▬▬ Supervision and Mentoring

Summary: Supervised/Co-supervised a total of 14 undergrad (B.Sc., not including REU students) and 8 M.Sc. students. Academic tutor to 6; and pastoral tutor to 2.

PhD Students

1. Yajie Guo, 2022-2025 (expected), School of Mathematical Sciences, University of Nottingham, UK (jointly Chris Fallaize)
2. James Harborne, 2022-2025 (expected), School of Mathematical Sciences, University of Nottingham, UK (jointly John King)

M.Sc. Students

1. Yajie Guo, 2022, Master degree dissertation, School of Mathematical Sciences, University of Nottingham, UK
2. Jianing Ye, 2022, Master degree dissertation, School of Mathematical Sciences, University of Nottingham, UK
3. Robert Lumpkin, 2019, Master degree project (jointly with Prof. Greg Rempala), Department of Mathematics, The Ohio State University, USA (*resulted in the publication [15]*)
4. Arnab Auddy, 2017, Summer internship, Technische Universität Darmstadt, Germany (*resulted in the publication [11]*)
5. Markus Schanz, 2017, Master thesis (jointly with Christian Koch), Technische Universität Darmstadt, Germany
6. Hameer Abbasi, 2017, Master thesis (jointly with Bastian Alt), Technische Universität Darmstadt, Germany
7. Ranjani Krishnan, 2018, Master thesis (jointly with Denny Stohr), Technische Universität Darmstadt, Germany
8. Sayantan Kumar, 2018, Summer internship, Technische Universität Darmstadt, Germany

B.Sc. Students

1. Sarina Rivlin-Sanders, 2022, Summer internship, School of Mathematical Sciences, The University of Nottingham, UK
2. Junzhe Zhu, 2022, Summer internship, School of Mathematical Sciences, The University of Nottingham, UK
3. Jasen Lai, 2019, Summer project, The Ohio State University, USA
4. Ran An, 2019, Summer project, The Ohio State University, USA
5. Stanley L. Cao, 2019, Summer project, The Ohio State University, USA
6. Hongyi Wang, 2019, Summer project, The Ohio State University, USA
7. Joey Zeng, 2019, Summer project, The Ohio State University, USA
8. Kai Li, 2019, Summer project, The Ohio State University, USA
9. Yi Dai, 2019, Summer project (jointly with Prof. Greg Rempala and Prof. Eben Kenah), The Ohio State University, USA
10. Jordan Kirsch, 2019, Summer project (jointly with Prof. Greg Rempala and Prof. Eben Kenah), The Ohio State University, USA
11. Vikash Vikash, 2016, Summer internship, Technische Universität Darmstadt, Germany
12. Simon Schwanz, 2016, Proseminar, Technische Universität Darmstadt, Germany
13. Simon Schwanz, 2017, Project seminar (jointly with Christian Koch), Technische Universität Darmstadt, Germany
14. Siddhaarth Sarkar, 2018, Summer internship, Technische Universität Darmstadt, Germany

Outreach and Service

Editorial Service

1. Associate Editor, Discussion paper for the Journal of the Royal Statistical Society Series B.
2. Co-editor, special issue of Mathematical Biosciences and Engineering

Professional committees

1. Committee of the Applied Probability Section of the Royal Statistical Society (RSS)

COVID-19 Modelling Response

1. Provided service to the Ohio Department of Health and Ohio Hospital Association as part of the OSU/IDI COVID-19 response modelling team. Provided daily predictions of COVID-19 cases and resultant hospital burden in the state of Ohio, USA.

Service to the Department/University

1. Course Director, B.Sc./M.Math. with a year in industry, University of Nottingham, 2022-23 academic year.
2. Organizer of the Statistics and Probability Seminars, Spring 2022, Academic year 2022-2023.
3. Reviewer for the President's Research Excellence, The Ohio State University, 2021.
4. Judge for the OSU Mathematical Contest for Modeling, The Ohio State University, 2018, 2019.
5. Judge for OPA travel awards, the Ohio State University, 2019.

Organizing conferences

1. Workshop on "Recent challenges in mathematical epidemiology" at University of Nottingham, UK, September 27, 2022. (jointly with Kirsty Bolton and Yordan Raykov)
2. Invited session at the IMS Asia Pacific Rim Meeting, Melbourne, Australia, 2022 (pending acceptance. Jointly with Gursharn Kaur)
3. Mini-symposium at the ECMTB 2022, September 19-23, 2022 (jointly with Hye-Won Kang)

4. BIRS Workshop on "Preparing for the next pandemic", June 12-17, 2022 (jointly with Sara Del Valle, Joel C. Miller and Rick Durrett)
5. Mini-symposium at the SIAM Conference on Applications of Dynamical Systems, 2021
6. Mini-symposium at the Annual Meeting of the Society for Mathematical Biology, 2021 (Jointly with Hye-Won Kang)
7. Invited session at the Annual Meeting of the ENAR, 2021 (jointly with Marissa Renardy)
8. Mini-symposium at the Annual Meeting of the Society for Mathematical Biology, 2020 (jointly with Hye-Won Kang)
9. Mini-symposium at the SIAM Conference on Mathematics of Data Science (MDS20), Cincinnati, OH, USA, June 11, 2020 (jointly with Veronica Ciaconel)
10. Contributed Session at the Latin American Congress of Probability and Mathematical Statistics (CLAPEM) XV, Merida-Yucatán, México, December, 2019 (jointly with Hye-Won Kang)
11. Session at the 2019 International Indian Statistical Association Conference (IISA 2019), Mumbai, India, December 2019 (jointly with Arindam Fadikar)

Tutorials

1. "How to write scientific papers" for MBI REU students, 2019
2. "Introduction to epidemic modelling" for SAMMS REU students, 2019
3. "Modeling the COVID-19 pandemic" for the Erdös Institute bootcamp, May 2020

Mentoring REUs

1. MBI REUs, Summer 2019
2. Ohio 5 SURE students at the College of Public Health, OSU, 2019

Referee Service

1. Journal of Applied Probability/Advances in Applied Probability (Applied Probability Trust)
2. Stochastic Processes and their Applications
3. Stochastics (Taylor & Francis)
4. SIAM Multiscale Modeling & Simulation
5. Mathematical Biosciences
6. Bulletin of Mathematical Biology
7. Journal of Chemical Physics
8. Journal of Mathematical Biology
9. PLOS One
10. Journal of Mathematical Physics
11. Mathematical Biosciences and Engineering
12. European Journal of Control
13. Mathematics (MDPI)
14. IEEE Transactions on Automatic Control
15. Journal of Mathematics in Industry
16. Journal of Mathematical Analysis and Applications
17. Journal of Scientific Research
18. Methodology and Computing in Applied Probability
19. IEEE Control System Letters
20. IEEE Transactions on Networking
21. IEEE Transactions on Control of Network Systems
22. IEEE Multi-Conference on Systems and Control, Sydney, Australia, 2015
23. American Control Conference (ACC)

1. Judge for abstract submissions at the Annual Meeting of the MIDAS Network, 2021
2. Judge for poster sessions at the Annual Meeting of the SMB 2021

1. Society for Industrial and Applied Mathematics (SIAM)
2. London Mathematical Society (LMS)
3. Royal Statistical Society (RSS) (Applied Probability Section Committee member)
4. The Society for Mathematical Biology (SMB) (Life member)
5. American Statistical Association (ASA)
6. American Association for the Advancement of Science (AAAS)

Computer Skills

Programming Languages	C, R, Python, SQL, Julia
Software	Matlab, SAS, Microsoft Office, LaTeX

Languages

English	Professional Proficiency
Bengali	Mother Tongue
Hindi	Working Knowledge
German	Intermediate (B1 level)

Media highlights

1. The Dynamical Systems Web (DSWeb): Student Feature in the Jan 2021 edition of the journal. (URL: `https://tinyurl.com/dsweb`)
2. OSC Research Report: COVID-19 projection models equip Ohioans. (URL: `https://tinyurl.com/resrchrprt`)
3. OSC News: Pandemic Modeling: COVID-19 Projection Models Equip Ohioans (URL: `https://tinyurl.com/oscwasiur`)
4. HPC Wire: Pandemic Modeling: COVID-19 Projection Models Equip Ohioans (ULR: `https://tinyurl.com/hpcnews`)
5. IDI News: Far from trivial: A postdoctoral researcher's path to a key position in the OSU/IDI COVID-19 modeling team (URL: `https://tinyurl.com/IDInews`)
6. STEAM Member Spotlight - Dr. Wasiur Rahman KhudaBukhsh (URL: `https://www.youtube.com/watch?v=j_DEgauzw7w`)

References

Available upon request.