

Alexander Kirpich Ph.D.

Urban Life Building
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Atlanta, GA 30303
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EDUCATION

- Doctor of Philosophy in Biostatistics*** August 2015
University of Florida, Gainesville, Florida, USA
Advisors: Dr. Ira M. Longini and Dr. Yang Yang
Dissertation: Dynamic Infectious Disease Modeling Challenges Influenced by Real Life Problems
- Master of Statistics*** May 2011
University of Florida, Gainesville, Florida, USA
Advisor: Dr. Hani Doss
Project: A Comparison of Ridge Regression and LASSO
- Specialist Degree in Mathematics*** June 2006
Belarusian State University, Minsk, Belarus
Advisor: Dr. Yakov V. Radyno
Thesis: Fields with Valuations

REVIEWED PUBLICATIONS

28. Norris M.H., Zincke D., Daegling D.J., Krigbaum J., McGraw W.S., **Kirpich A.**, Hadfield T.L., Blackburn J.K.. Genomic and Phylogenetic Analysis of *Bacillus cereus* Biovar anthracis Isolated from Archival Bone Samples Reveals Earlier Natural History of the Pathogen. *Pathogens*. 2023 Aug 20;12(8):1065. PMID: 37624025 PMCID: PMC10457788 DOI: 10.3390/pathogens12081065
27. **Kirpich A.**, Shishkin A., Lhewa P., Yang, C., von Fricken M.E., Norris M.H., Weppelmann T.A. An Investigation of the Seasonal Relationships Between Meteorological Factors, Water Quality, and Sporadic Cases of Legionnaires' Disease in Washington, DC. *Epidemiology & Infection*. 2023 Jan;151:e88. PMID: 37183701 PMCID: PMC10265736 DOI: 0.1017/S0950268823000651
26. Shishkin A., Lhewa P., Yang C., Gankin Y., Chowell G., Norris M., Skums P., and **Kirpich A.** Excess mortality in Ukraine during the course of COVID-19 pandemic in 2020-2021. *Scientific Reports, Nature Publishing Group* 2023 Apr 27;13(1):6917. PMID: 37106001 PMCID: PMC10139669 DOI: 10.1038/s41598-023-33113-2
25. Norris M.H., Bluhm A.P., Metrailler M.C., Jiranantasak T., **Kirpich A.**, Hadfield T., Ponciano J.M., Blackburn J.K. Beyond the spore, the exosporium sugar anthrose impacts vegetative *Bacillus anthracis* gene regulation in cis and trans. *Scientific Reports, Nature Publishing Group* 2023 Mar 28;13(1):5060. PMID: 35361826 PMCID: PMC8970068 DOI: 10.1038/s41598-022-09345-z

24. Alexandrov, V., **Kirpich A.**, Kantidze, O., and Gankin, Y., A multi-reference poly-conformational method for in silico design, optimization, and repositioning of pharmaceutical compounds illustrated for selected SARS-CoV-2 ligands. *PeerJ* 2022 Nov 24;10:e14252. PMID: 36447514 PMCID: PMC9701500 DOI: 10.7717/peerj.14252
23. Alexandrov, V., Vilenchik, M., Kantidze, O., Tsutskiridze, N., Tsutskiridze, N., Kharchiliava, D., Lhewa, P., Shishkin, A., Gankin, Y.,* **Kirpich A.*** [*Equal Contribution] The novel efficient multi-stage lead optimization pipeline experimentally validated for DYRK1B selective inhibitors. *Journal of Medicinal Chemistry*. 2022 Oct 14;65(20):13784-92. PMID: 36239428 PMCID: PMC9619999 DOI: 10.1021/acs.jmedchem.2c00988
22. Danilov, V.V., Litmanovich, D., Proutski, A., **Kirpich A.**, Nefaridze, D., Karpovsky, A., Gankin, Y. Automatic scoring of COVID-19 severity in X-ray imaging based on a novel deep learning workflow. *Scientific Reports, Nature Publishing Group* 2022 Jul 27;12(1):12791. PMID: 35896761 PMCID: PMC9326426 DOI: 10.1038/s41598-022-15013-z
21. **Kirpich A.**, Shishkin, A., Weppelmann, T.A., Perez Tchernov, A., Skums, P., and Gankin, Y. Excess mortality in Belarus during the COVID-19 pandemic as the case study of a country with limited non-pharmaceutical interventions and limited reporting. *Scientific Reports, Nature Publishing Group* 2022 Mar 31;12(1):5475. PMID: 35361826 PMCID: PMC8970068 DOI: 10.1038/s41598-022-09345-z
20. Tariq, A., Chakhaia, T., Dahal, S., Ewing, A., Hua, X., Ofori, S.K., Prince, O., Salindri, A., Adeniyi, A.E., Banda, J.M. and Skums, P., Luo, R., Lara-Díaz, L.Y., Bürger, R., Fung, I., C-H., Shim, E., **Kirpich A.**, Srivastava, A., Chowell, G. An investigation of spatial-temporal patterns and predictions of the COVID-19 pandemic in Colombia, 2020-2021. *PLOS Neglected Tropical Diseases*. 2022 Mar 4;16(3):e0010228. PMID: 35245285 PMCID: PMC8926206 DOI: 10.1371/journal.pntd.0010228
19. Danilov V. V., Proutski A., Karpovsky A., **Kirpich A.**, Litmanovich D., Nefaridze D., Talalov O., Semyonov S., Koniukhovskii V., Shvartc V., Gankin Y., Indirect supervision applied to COVID-19 and pneumonia classification. *Informatics in Medicine Unlocked*. 2022 Jan 1;28:100835. PMID: 34977331 PMCID: PMC8712713 DOI: 10.1016/j.imu.2021.100835
18. Gankin, Y., Nemira, A.&, Koniukhovskii, V.&, Chowell, G., Weppelmann, T.A., Skums, P.* and **Kirpich A.***, Investigating the first stage of the COVID-19 pandemic in Ukraine using epidemiological and genomic data. [Equal Contribution] [*Equal Contribution] *Infection, Genetics and Evolution*. 2021 Nov 1. PMID: 34592415 PMCID: PMC8474758 DOI: 10.1016/j.meegid.2021.105087
19. Gorse, G.J., Rattigan, S.M., **Kirpich, A.**, Simberkoff, M.S., Bessesen, M.T., Gibert, C., Nyquist, A.C., Price, C.S., Gaydos, C.A., Radonovich, L.J. and Perl, T.M., Influence of Pre-Season Antibodies against Influenza Virus on Risk of Influenza Infection among Health Care Personnel. *The Journal of Infectious Diseases* 2022 Mar 1;225(5):891-902. PMID: 34534319 DOI: 10.1093/infdis/jiab468
16. Nemira, A., Adeniyi, A.E., Gasich, E.L., Bulda, K.Y., Valentovich, L.N., Krasko, A.G., Glebova, O., **Kirpich A.*** and Skums, P.*, SARS-CoV-2 transmission dynamics in Belarus in 2020 re-

vealed by genomic and incidence data analysis. [*Equal Contribution] *Communications Medicine, Nature Publishing Group* 2021 Sep 16;1(1):31. PMID: 35602211 PMCID: PMC9053244 DOI: 10.1038/s43856-021-00031-1

15. Tariq, A., Banda, J.M., Skums, P., Dahal, S., Castillo-Garsow, C., Espinoza, B., Brizuela, N.G., Saenz, R.A., **Kirpich, A.**, Luo, R. and Srivastava, A., Gutierrez, H, Garcia Chan, N., Bento., A. I., Jimenez-Corona, M.-E., Chowell., G., Transmission dynamics and forecasts of the COVID-19 pandemic in Mexico, March-December 2020. *PLoS one* 2021 Jul 21;16(7):e0254826. PMID: 34288969 PMCID: PMC8294497 DOI: 10.1371/journal.pone.0254826

14. **Kirpich A.***, Koniukhovskii, V.*, Shvartc, V., Skums, P., Weppelmann, T.A., Imyanitov, E., Semyonov, S., Barsukov, K. and Gankin, Y., Development of an interactive, agent-based local stochastic model of COVID-19 transmission and evaluation of mitigation strategies illustrated for the state of Massachusetts, USA. [*Equal Contribution] *PLoS one* 2021 Feb 17;16(2):e0247182. PMID: 33596247 PMCID: PMC7888623 DOI: 10.1371/journal.pone.0247182

13. Norris, M.H., **Kirpich, A.**, Bluhm, A.P., Zincke, D., Hadfield, T., Ponciano, J.M. and Blackburn, J.K., Convergent evolution of diverse *Bacillus anthracis* outbreak strains toward altered surface oligosaccharides that modulate anthrax pathogenesis. *PLoS biology*, 2020 Dec 28;18(12):e3001052. PMID: 33370274 PMCID: PMC7793302 DOI: 10.1371/journal.pbio.3001052

11. Roosa K., Lee Y., Luo R., **Kirpich A.**, Rothenberg R., Hyman J.M., Yan P. and Chowell G., Short-term Forecasts of the COVID-19 Epidemic in Guangdong and Zhejiang, China: February 13–23, 2020. *Journal of Clinical Medicine*. 2020 Feb 22;9(2):596. PMID: 32098289 PMCID: PMC7073898 DOI: 10.3390/jcm9020596

12. Roosa, K., Lee Y., Luo R., **Kirpich, A.**, Rothenberg, R., Hyman, J.M., Yan, P. and Chowell, G., 2020. Real-time forecasts of the COVID-19 epidemic in China from February 5th to February 24th, 2020. *Infectious Disease Modelling*. 2020 Jan 1;5:256-63. PMID: 32110742 PMCID: PMC7033348 DOI: 10.1016/j.idm.2020.02.002

10. **Kirpich A.***, Ragavan M.*, Bankson J., McIntyre L.M., Merritt M.E. Kinetic Analysis of Hepatic Metabolism Using Hyperpolarized Dihydroxyacetone. [*Equal Contribution] *Journal of Chemical Information and Modeling*. 2019 Jan 2;59(1):605-14. PMID: 30602117 PMCID: PMC6533070 DOI: 10.1021/acs.jcim.8b00745

9. **Kirpich A.**, Ainsworth L., Wedow J., Newman J.R., Michailidis G., and McIntyre L.M. Variable selection in omics data: a practical evaluation of small sample sizes. *PLoS one* 2018 Jun 21;13(6):e0197910. PMID: 29927942 PMCID: PMC6013185 DOI: 10.1371/journal.pone.0197910

8. **Kirpich A.**, Ibarra M.A., Moskalenko O., Fear J.M., Gerken J, Mi X., Ashrafi A., Morse A., and McIntyre L. M. SECIMTools: A suite of Metabolomics Data Analysis Tools. *BMC Bioinformatics* 2018 Dec;19(1):1-1. PMID: 29678131 PMCID: PMC5910624 DOI: 10.1186/s12859-018-2134-1

7. Mir R.A., Weppelmann T.A., Teng L., **Kirpich A.**, Mauricio A.E., Driver J.D., and Jeong K.C. Colonization Dynamics of Cefotaxime Resistant Bacteria in Beef Cattle Raised Without Cephalosporin Antibiotics. *Frontiers in Microbiology* 2018 Mar 21;9:500. PMID: 29619015 PMCID: PMC5871660

DOI: 10.3389/fmicb.2018.00500

6. Patterson, R.E., **Kirpich A.**, Koelmel J.P., Kalavalapalli S, Morse A.M., Cusi K, Sunny N.E., McIntyre L.M., Garrett T.J., and Yost R.A. Improved experimental data processing for UHPLC–HRMS/MS lipidomics applied to nonalcoholic fatty liver disease. *Metabolomics* 2017 Nov DOI: 10.1007/s11306-017-1280-1

5. Ragavan M., **Kirpich A.**, Fu X., Burgess S.C., McIntyre L.M., Merritt M.E. A Comprehensive Analysis of Myocardial Substrate Preference Emphasizes the Need For a Synchronized Fluxomic/Metabolomic Research Design. *Heart and Circulatory Physiology. American Journal of Physiology.* 2017 Jun 1;312(6):H1215-23. PMID: 28411229 PMCID: PMC5495932 DOI: 10.1152/ajp-heart.00016.2017

4. **Kirpich A.**, Weppelmann T.A., Yang Y., Morris J.G., Longini I.M. Controlling Cholera in the Ouest Department of Haiti Using Oral Vaccines. *PLoS Neglected Tropical Diseases.* 2017 Apr 14;11(4):e0005482. PMID: 28410382 PMCID: PMC5406029 DOI: 10.1371/journal.pntd.0005482

3. **Kirpich A.** and Leary E. Superfund Locations and Cancer Incidence in Florida. *Statistics and Public Policy. ASA Journal.* 2017 Jan 1;4(1):1-9. DOI: 10.1080/2330443X.2016.1267599

2. **Kirpich A.**, Weppelmann T.A., Yang Y., Ali A., Morris J.G., Longini I.M. Cholera Transmission in Ouest Department of Haiti: Dynamic Modeling and the Future of the Epidemic. *PLoS Neglected Tropical Diseases.* 2015 Oct 21;9(10):e0004153. PMID: 26488620 PMCID: PMC4619523 DOI: 10.1371/journal.pntd.0004153

1. Minarich L.A., **Kirpich A.**, Fiske L.M., Weinstein D.A. Bone Mineral Density in Glycogen Storage Disease Type Ia and Ib. *Genetics in Medicine. Nature Publishing Group.* 2012 Aug 1;14(8):737-41. PMID: 22481133 PMCID: PMC3884026 DOI: 10.1038/gim.2012.36

SUBMITTED/UNDER REVIEW

2. **Kirpich A.**, Shishkin A, Lhewa P, Adeniyi EA, Norris M, Chowell G, Gankin Y, Skums P, Perez Tchernov A. Clustering-Based Multi-Characteristic Comparative Analysis of COVID-19 Epidemiology in Europe. *Submitted for the review.*

1. Bakhturidze G., Popova L., **Kirpich A.**, Berg C., Eriksen M.P. Smoke-free policy impact on the hospitality sector in the Republic of Georgia. *Submitted for the review.*

OTHER PUBLICATIONS

4. Skums P., **Kirpich A.**, Baykal P.I., Zelikovsky A., and Chowell G. Global transmission network of SARS-CoV-2: from outbreak to pandemic. *MedRxiv.* 2020

3. **Kirpich A.**, Yang Y., Longini I.M., Halloran E. 2013. Simulation Studies for Dengue Transmission and Within-Host Immune Responses. *Joint Statistical Meetings Proceedings 2013, Section on Statistics in Epidemiology.* 4217-4221. 2013

2. Kirpich S. and **Kirpich A.** Integrity approach to analyzing of open systems. Joint Monograph: Harmonious development of systems - the third way of human development. *Institute of Creative Technologies Ltd.*, Odessa, Ukraine. ISBN: 978-966-8888-03-9. 2011.

1. Kirpich S., Chernomorets V., **Kirpich A.** Structural and temporal organization of systems. Joint Monograph: Harmonious development of systems - the third way of human development. *Institute of Creative Technologies Ltd.*, Odessa, Ukraine. ISBN: 978-966-8888-03-9. 2011.

HONORS & AWARDS

Epidemics: 9th International Conference on Infectious Disease Dynamics - **Poster Award 2nd Prize. Nov 28 - Dec 1, 2023.** Publication Fee Waiver for One Publication in Epidemics Journal.

UF Informatics Institute Postdoctoral **One Year Fellowship** in **2016** calendar year.

Travel award and modules tuition at the 5th Summer Institute in Statistics and Modeling in Infectious Diseases (**SISMID**) Seattle, WA USA **July 8-24, 2013** (workshop, 3 Modules) **\$500**

Travel award and modules tuition at the 4th Summer Institute in Statistics and Modeling in Infectious Diseases (**SISMID**) Seattle, WA USA **July 9-25, 2012** (workshop, 4 Modules) **\$500**

University of Florida **Grinter Fellowship** in **2011-2012** academic years (Department of Biostatistics) and in **2008-2010** years (Department of Statistics). The Grinter Fellowship is provided to prospective Ph.D. students by corresponding graduate programs to support their studies and research at the University of Florida. **\$4000** Annually.

GlaxoSmithKline Scholar Award 2008. This award was assigned annually to one outstanding first year graduate student of the Statistics Department at the University of Florida. **\$1000**

Belarusian State University extended fellowships in **2001-2006** academic years. The fellowships are provided to students with high GPA to support their studies at the Belarusian State University.

FUNDED GRANTS AND CONTRACTS

HHS-2023-ACL-AOA-INNU-0007

05/2023 – 04/2028

Title: **Project HOPEFUL (Helping Older Persons Find Useful Links)**

PI: Laura Shannonhouse, Ph.D., College of Education & Human Development, Georgia State University

Funder: ACL - Administration for Community Living

Role: **CO-I** (\$96,854)

Total Cost: (\$4,107,807)

IISR-2021-200152

10/2022 – 06/2023

Title: **Natural History of Growth in Pediatric Intestinal Failure**

PI: Anita M. Nucci, Ph.D., College of Nursing and Health Professions, Georgia State University

Funder: Takeda Pharmaceutical Company

Role: **Biostatistician** (\$17,000)

Total Cost: (\$115,526)

GSU

07/2022 – 06/2023

Title: **Working Together to Enhance Preparedness against Pandemics - WE-PreP**

PI: Richard Plemper, Ph.D., Institute for Biomedical Sciences, Georgia State University

Funder: Georgia State University

Role: **CO-I** (\$30,984)

Total Cost: (\$300,000)

COMMITTEES & OTHER SERVICE

Committee: School of Public Health Certificate in Applied Biostatistics. (Fall 2022, Spring 2023, Fall 2023)

Role: **Committee Member**

Committee: Department of Population Health Sciences Comprehensive Assessment of Ph.D. Students. (Fall 2023)

Role: **Committee Member**

Committee: School of Public Health Student Technology Fee Proposals. (Spring 2020, Spring 2021, Spring 2022, Spring 2023, Spring 2024)

Role: **Committee Member**

Committee: School of Public Health/Department of Population Health Sciences Ph.D. Graduate Admissions. (Spring 2020, Spring 2021, Spring 2022, Spring 2023, Spring 2023)

Role: **Committee Member**

Committee: School of Public Health MPH Graduate Admissions. (Spring 2020, Fall 2020, Fall 2021, Spring 2022, Fall 2022, Fall 2023)

Role: **Committee Member**

Service: iScience Journal Editorial Advisory Board (Since Fall 2022).

Role: **Editorial Board Member**

Service: School of Public Health Biostatistics Computer Lab (Since Fall 2021).

Role: **Lab Administrator (together with Karen Nielsen Ph.D.)**

Service: Peer-Reviewer for PLOS One (Spring 2020, Spring 2021), MDPI Systems (Spring 2020), Epidemics (Spring 2020, Spring 2021), MDPI IJERPH (Fall 2020, Fall 2021, Fall 2022), MDPI Healthcare (Fall 2020), Journal of Inverse and Ill-Posed Problems (Fall 2021), Acta Biotheoretica (Spring 2021), Heliyon (Fall 2022) and iScience (Fall 2022)

Role: **Paper Reviewer**

STUDENTS

Shishkin Aleksandr

Ongoing

Ph.D. Student. Dissertation Committee Chair. Joint Publications.	
Julia Falvey Ph.D. Student. Dissertation Committee Chair.	Ongoing
Daniel Bowen Ph.D. Student. Dissertation Committee Chair.	Ongoing
Zainab Alonge MS Student. Thesis Committee Member.	Fall 2024
Paralitci Valentina MPH Student. Thesis Committee Chair.	Summer 2024
Hopwood Corey MPH Student. Capstone Committee Chair.	Summer 2024
Gallaher Victoria MPH Student. Capstone Committee Chair.	Spring 2024
Sheku Mahmud MPH Student. Thesis Committee Member.	Spring 2024
Donaldson Harrell Jacy MPH Student. Capstone Committee Chair.	Spring 2024
Beharry Sarah MPH Student. Thesis Committee Member.	Fall 2023
Rainisch Gabriel Ph.D. Student. Dissertation Committee Member.	Fall 2023
Rhodenbaugh Reisha MPH Student. Capstone Committee Chair.	Fall 2023
Simpson Meosha MPH Student. Thesis Committee Member.	Fall 2023
Griffin Jha'Meisheia MPH Student. Capstone Committee Chair.	Spring 2023
Lhewa Pema MPH Student. Capstone Committee Chair. Joint Publications.	Spring 2023
Chen Yang Undergraduate Student. Collaboration. Joint Publication.	Summer 2022
Binney Sophie MPH Student. Capstone Committee Chair.	Summer 2022
Tariq Amna Ph.D. Student. Dissertation Committee Member. Joint Publications.	Spring 2022

CONFERENCES AND TALKS

Bleichrodt, A., Luo R., **Kirpich A.**, Chowell G., Multi-model and ensemble forecasts in the context of the 2022-2023 Mpx outbreak in multiple countries, July 2022, through January 2023 (poster) *Epidemics*⁹ - *International Conference on Infectious Disease Dynamics*, December 2023, Bologna, Italy.

Kirpich A., Perez Tchernov, A., Shishkin, A., Lhewa, P., Adeniyi, E., Norris, M., Chowell, G., Gankin, Y., Skums, P. Comparative analysis of COVID-19 epidemiology in Europe: Insights based on country characteristics. (poster) *Epidemics⁹ - International Conference on Infectious Disease Dynamics*, December 2023, Bologna, Italy.

Kirpich A., Shishkin, A., Lhewa, P., Yang, C., von Fricken, M., Norris, M., Weppelmann, T.A. An investigation of the seasonal relationships between meteorological factors, water quality and sporadic cases of Legionnaires' disease in Washington, DC (poster) *Epidemics⁹ - International Conference on Infectious Disease Dynamics*, December 2023, Bologna, Italy.

Kirpich A., Perez Tchernov, A., Shishkin, A., Lhewa, P., Adeniyi, E., Norris, M., Chowell, G., Gankin, Y., Skums, P. Comparative analysis of COVID-19 epidemiology in Europe: Insights based on country characteristics. (poster) *MIDAS 2023 - IModels of Infectious Disease Agent Study*, October 2023, Atlanta, GA, USA.

Shishkin A., Lhewa P., Yang C., Skums P., and **Kirpich A.** Excess Mortality in Ukraine During the Course of COVID-19 Pandemic in 2020-2022 (talk) *11th International Conference on Emerging Infectious Diseases (ICEID)*, September 2022, Atlanta, GA, USA

Kirpich A., Shishkin, A., Weppelmann, T.A., Perez Tchernov, A., Skums, P., Gankin, Y. Excess mortality in Belarus during the COVID-19 pandemic: the case of a country with limited non-pharmaceutical interventions and limited reporting. (poster) *Epidemics⁸ - International Conference on Infectious Disease Dynamics*, December 2021, Bologna, Italy (held online due to COVID-19).

Kirpich A. Infectious Disease Modeling Challenges – COVID 19 Pandemic in the Modern World (online talk) *University of Florida Informatics Institute*, April 2020, Gainesville, FL USA

Kirpich A., Solomon S.S., Mehta S.H., Cummings D.A.T. Assessing the impact of a community intervention targeting HIV transmission among PWID in multiple sites in India: insights from transmission models. (poster) *Epidemics⁷ - International Conference on Infectious Disease Dynamics*, December 2019, Charleston, SC USA

Xinsong D., Manfio L., **Kirpich A.**, Hogan W., Garrett T. J., Lemas D. J. UMPIRE: A Reproducible Pipeline for Scalable Untargeted Metabolomics Data Analysis. (poster) *1st Annual Metabolomics Association of North America (MANA) Conference*, November 2019, Atlanta, GA USA

Lemas D.J., Xinsong D., Dado-Senn B., **Kirpich A.**, Francois M., Cacho N., Thompson L., Parker L., Neu J., Laporta J., Garrett T. The human and bovine milk metabolome at 2-weeks postnatal. (poster) *1st Annual Metabolomics Association of North America (MANA) Conference*, November 2019, Atlanta, GA USA

Kirpich A., Merritt M. E., Michailidis G., McIntyre L. M. Variable selection in untargeted metabolomics data analysis. (speed talk and poster) *Joint Statistical Meeting 2016*, August 2016 Chicago, IL USA

McIntyre L. M., Patterson R., Garrett T., Morse A., **Kirpich A.**, Fear J., Ibarra M., Moskalenko O., Koelmel J. Metabolomic Data Analysis: Data Preprocessing. (talk) *Joint Statistical Meeting 2016*, August 2016, Chicago, IL USA

Kirpich A., Weppelmann T. A., Yang Y., Morris J. G., Longini I. Cholera transmission in Ouest Department of Haiti: dynamic modeling and prediction. (poster) *Epidemics⁵ - International Conference on Infectious Disease Dynamics*, December 2015, Clearwater Beach, FL USA

Kirpich A., Weppelmann T. A., Yang Y., Morris J. G., Longini I. Cholera transmission in Ouest Department of Haiti: dynamic modeling and prediction. (talk) *ENAR Meeting 2015*, March 2015,

Miami, FL USA

Leary E., **Kirpich A.** Cancer Incidence and Superfund Sites in Florida. (talk) *ENAR Meeting 2015*, March 2015, Miami, FL USA

Kirpich A., Weppelmann T. A., Yang Y., Morris J. G., Longini I. Cholera transmission in Ouest Department of Haiti: dynamic modeling and prediction. (poster) *49th US-Japan Conference on Cholera and Other Bacterial Enteric Infections*, February 2015, Gainesville, FL USA

Kirpich A., Yang Y., Longini I., Halloran E. Simulation Studies and Inference Challenges for Dengue Transmission and Within Host Immune Responses. (poster) *University of Florida Emerging Pathogens Institute Research Day 2014*, February 2014, Gainesville, FL USA

Kirpich A., Yang Y., Longini I., Halloran E. Simulation Studies and Inference Challenges for Dengue Transmission and Within Host Immune Responses. (poster) *Joint Statistical Meeting 2013*, August 2013, Montreal QC, Canada

SYMPOSIUMS & WORKSHOPS

ICCABS 2023 - Workshop December 2023
Norman, OK USA
Participant. Presenter.

2022 Quantitative Biosciences Workshop (QBioS - Georgia Tech) May 2022
Atlanta, GA USA
Participant.

2022 Georgia Scientific Computing Symposium (GSCS - Georgia Tech) February 2022
Atlanta, GA USA
Participant.

ACM-BCB Computational Advances in Molecular Epidemiology (CAME) September 2019
Niagara Falls, NY USA
Presenter. Participant.

Florida ASA Chapter Meeting 2015 February 2015
Tampa, FL USA
Participant.

5th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID) July 2013
Seattle, WA USA
Workshop participant. Took 3 Modules.

4th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID) July 2012
Workshop participant. Took 4 Modules.

University of Florida Workshop on New Directions in Monte Carlo Methods February 2013
Gainesville, FL USA
Participant.

RESEARCH EXPERIENCE

Assistant Professor August 2019 - Present
Georgia State University, School of Public Health, Atlanta, Georgia USA
Georgia State University, Department of Population Health Sciences, Atlanta, Georgia USA

Postdoctoral Associate November 2017 - June 2019
University of Florida, Department of Biology, Gainesville, Florida USA
University of Florida, Emerging Pathogens Institute, Gainesville, Florida USA

Postdoctoral Associate/Postdoctoral Fellow September 2015 - October 2017
University of Florida, Southeast Center for Integrated Metabolomics, Gainesville, Florida USA
University of Florida, Informatics Institute, Gainesville, Florida USA

Research Assistant August 2012 - August 2015
University of Florida, Department of Biostatistics, Gainesville, Florida USA
University of Florida, Emerging Pathogens Institute, Gainesville, Florida USA

TEACHING EXPERIENCE

Assistant Professor & Course Instructor January 2020 - Present
Georgia State University, School of Public Health, Atlanta, Georgia USA
Georgia State University, Department of Population Health Sciences, Atlanta, Georgia USA

Graduate Teaching Assistant August 2011 - August 2012
University of Florida, Department of Biostatistics, Gainesville, Florida, USA

Graduate Teaching Assistant & Course Instructor May 2011 - June 2011
University of Florida, Department of Statistics, Gainesville, Florida USA

Graduate Teaching Assistant & Labs Instructor August 2008 - April 2011
University of Florida, Department of Statistics, Gainesville, Florida, USA

INDUSTRIAL EXPERIENCE

Quality and Service Assurance Analyst June 2008 - August 2008
Nature Publishing Group, New York City, New York, USA

Marketing Analyst February 2008 - May 2008
DADA Entertainment LLC (Sony BMG & DADA Joint Venture), New York City, New York, USA

Quality and Service Assurance Analyst September 2006 - February 2008
DADA Entertainment LLC (Sony BMG & DADA Joint Venture), New York City, New York, USA

Quality Assurance Specialist
ITransition Software Development Company, Minsk, Belarus

March 2006 - September 2006

CONSULTING

Postdoctoral Consultant
University of Florida, Genetics Institute

September 2015 - September 2017

Student Consultant
University of Florida, Department of Biostatistics
University of Florida, Emerging Pathogens Institute

August 2012 - August 2015

RELEVANT SKILLS

Programming Languages and Software
R, SAS, C++, Python, ArcGIS, L^AT_EX

Language Skills
English (fluent), Belarusian (native), Russian (native), German (basic).

FORMAL TRAINING

Applied Coursework

Spatial Statistics, Regression Analysis, Design of Experiments, Advanced Design and Analysis of Experiments, Categorical Data Analysis, Linear Models, Generalized Linear Models, Longitudinal Data Analysis, Applied Survival Analysis, Stochastic Modeling, Epidemiology, Biostatistical Consulting, Computational Methods.

Theoretical Coursework

Statistical Inference, Probability Theory, Stochastic Processes, Limit Theory, Nonparametric Statistics, Advanced Survival Analysis, Abstract and Linear Algebra, Matrix Algebra, Mathematical Analysis, Functional Analysis, Analytical Geometry, Topology, Differential Geometry, Differential Equations.