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Education

2014-2019 BSc in Mathematics and Statistics (Honours), McMaster University, Hamilton, ON, Canada
2019- PHD STUDENT in Ecology and Evolutionary Biology, Princeton University, Princeton, NJ, USA

Publications

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- 2021 **Park, S.W.**, Pons-Salort, M., Messacar, K., Cook, C., Meyers, L., Farrar, J., Grenfell, B. T. Epidemiological dynamics of enterovirus D68 in the United States and implications for acute flaccid myelitis. *Science Translational Medicine*, 13(584): eabd2400.
- 2020 **Park, S.W.**, Sun, K., Champredon, D., Li, M., Bolker, B.M., Earn, D.J., Weitz, J.S., Grenfell, B.T. and Dushoff, J. Forward-looking serial intervals correctly link epidemic growth to reproduction numbers. *Proceedings of the National Academy of Sciences*, 118(2): e2011548118.
- 2020 Weitz, J.S., **Park, S.W.**, Eksin, C. and Dushoff, J. Awareness-driven behavior changes can shift the shape of epidemics away from peaks and toward plateaus, shoulders, and oscillations. *Proceedings of the National Academy of Sciences*, 117(51): 32764-32771.
- 2020 Baker, R.E., **Park, S.W.**, Yang, W., Vecchi, G.A., Metcalf, C.J.E. and Grenfell, B.T. The impact of COVID-19 nonpharmaceutical interventions on the future dynamics of endemic infections. *Proceedings of the National Academy of Sciences*, 117(48): 30547-30553.
- 2020 Metcalf, C. J. E., Morris, D. H., and **Park, S.W.** Mathematical models to guide pandemic response. *Science*, 369(6502): 368-369.
- 2020 **Park, S.W.**, Bolker, B.M., Champredon, D., Earn, D.J., Li, M., Weitz, J.S., Grenfell, B.T. and Dushoff, J. Reconciling early-outbreak estimates of the basic reproductive number and its uncertainty: framework and applications to the novel coronavirus (SARS-CoV-2) outbreak. *Journal of the Royal Society Interface*, 17: 20200144.
- 2020 **Park, S. W.**, Champredon, D., and Dushoff, J. Inferring generation-interval distributions from contact-tracing data. *Journal of the Royal Society Interface*, 17(167): 20190719.

- 2020 Weitz, J. S., Beckett, S. J., Coenen, A. R., Demory, D., Dominguez-Mirazo, M., Dushoff, J., Leung, C.-Y., Li, G., Măgălie, A., **Park, S. W.**, Rodriguez-Gonzalez, R., Shivam, S., and Zhao, C. Y. Modeling shield immunity to reduce COVID-19 epidemic spread. *Nature medicine*, 26(6): 849-854.
- 2020 **Park, S. W.**, Cornforth, D. M., Dushoff J., and Weitz J. S. The time scale of asymptomatic transmission affects estimates of epidemic potential in the COVID-19 outbreak. *Epidemics*, 31: 100392.
- 2020 **Park, S. W.**, and Bolker, B.M. A note on observation processes in epidemic models. *Bulletin of Mathematical Biology*, 82(3): 1-8.
- 2020 **Park, S. W.**, Sun, K., Viboud, C., Grenfell, B. T., and Dushoff, J. Potential Role of Social Distancing in Mitigating Spread of Coronavirus Disease, South Korea. *Emerging infectious diseases*, 26(11): 2697–2700.
- 2019 **Park, S. W.**, Champredon, D., Weitz, J. S., and Dushoff, J. 2019. A practical generation-interval-based approach to inferring the strength of epidemics from their speed. *Epidemics*, 27: 12-18.
- 2018 **Park, S.W.**, Dushoff, J., Earn, D.J.D., Poinar, H., and Bolker, B.M., 2018. Human ectoparasite transmission of the plague during the Second Pandemic is only weakly supported by proposed mathematical models. *Proceedings of the National Academy of Sciences*, 115(34): E7892-E7893.
- 2017 **Park, S.W.**, and Bolker, B.M., 2017. Effects of contact structure on the transient evolution of HIV virulence. *PLoS Computational Biology*, 13(3): e1005453.
- 2017 Rekart, M.L., Ndifon, W., Brunham, R.C., Dushoff, J., **Park, S.W.**, Rawart, S., and Cameron, C.E., 2017. A double-edged sword: does highly active antiretroviral therapy contribute to syphilis incidence by impairing immunity to *Treponema pallidum*?. *Sexually Transmitted Infections*, 93(5): 374-378.