Dr. Stephen Beckett

Research Scientist II

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Areas of focus: marine microbial ecology, virus-microbe ecology and evolution, biophysics, epidemic dynamics, network structure and dynamics of complex systems.
Research skills: mathematical modelling and data science, network analysis, spatial dynamics & time series analysis, data visualization & mapping, development of interactive data dashboards.

Employment

Georgia Institute of Technology **August 2015 – present**
Research Scientist II. **School of Biological Sciences.** **July 2022 – present**
Research Scientist I. **School of Biological Sciences.** **February 2019 – June 2022**
Postdoctoral Fellow. **School of Biological Sciences.** **August 2015 – February 2019**
- Mentor: Joshua Weitz. **Atlanta, GA, USA**

- Evaluating viral and grazer impact on marine microbial communities.
- Developing size-structured models of virus-host dynamics with model-data fitting.
- Age- and spatial-structured epidemic modelling; COVID-19 risk and prevalence estimation.

Microsoft Research Cambridge **May – August 2011**
Research Intern. **Computational Ecology and Environmental Science.** **Cambridge, UK**

Education

University of Exeter **September 2011 – July 2015**
Ph.D. in Biological Sciences. **Exeter, UK**

- Thesis: **Nestedness and modularity in bipartite networks**
- Advisor: Hywel Williams.

University of York **September 2010 – August 2011**
MRes. Mathematics in the Living Environment. **York, UK**

- Thesis: **Predicting global leaf phenology**
- Advisors: Matthew Smith (Microsoft Research) and Jon Pitchford.
- Project: **Repellent pheromone laying behaviour in Pharaoh's ants** with Luke Westwood.
- Advisors: Elva Robinson and Jon Pitchford.

University of Leeds **September 2007 – July 2010**
BSc (Hons). Geography & Mathematics. **Leeds, UK**

Honours and Awards

2018. Climate Change Fellow at Georgia Institute of Technology.
2013. Travel grant from the Society of General Microbiology to attend Autumn conference.
2011-2015. Research & Knowledge Transfer PhD studentship from the University of Exeter.
2010-2011. Partially funded masters studentship from Natural Environment Research Council.

Software

subregionalcovid19
Repository: https://github.com/sjbeckett/subregionalcovid19
Description: Assemble and visualize recent COVID-19 case data across the globe.

weighted-modularity-LPAwbPLUS: Improved community detection in weighted bipartite networks
Repository: https://github.com/sjbeckett/weighted-modularity-LPAwbPLUS
Description: Quantifying modularity in weighted bipartite networks (see Beckett, 2016).

FALCON: a software package for analysis of nestedness in bipartite networks
Repository: https://github.com/sjbeckett/FALCON
Description: Assessing nestedness in bipartite networks, described in Beckett *et al.* 2014.

Publications (* = *Joint lead authors*, † = *undergraduate research mentee)*

Published:

2022

1. Muratore D., Boysen A.K., Harke M.J., Becker K.W., Casey J.R., Coesel S.N., Mende D.R., Wilson S.T., Aylward F.O., Eppley J.M., Vislova A., Peng S., Rodgriguez-Gonzalez R.A., **Beckett S.J.**, Armbrust E.V., DeLong E.F., Karl D.M., White A.E., Zehr J.P., Van Mooy B.A.S, Dyhrman S.T., Ingalls A.E., Weitz J.S. **Complex Marine Microbial Communities Partition Metabolism of Scarce Resources Over the Diel Cycle.** *Nature Ecology & Evolution 6: 218-229.* paper code
2. Gibson G., Weitz J.S., Shannon M.P., Holton B., Bryskin A., Liu B., Sieglinger M., Coenen A.R., Zhao C., **Beckett S.J.**, Bramblett S., Williamson J., Farrell M., Ortiz A., Abdallah C.T., García A.J. **Surveillance-to-Diagnostic Testing Program for Asymptomatic SARS-CoV-2 Infections on a Large, Urban Campus in Fall 2020.** *Epidemiology 33: 209–216.* paper code

2021

3. Lopman B.A., Shioda K., Nguyen Q.†, **Beckett S.J.**, Siegler A.J., Sullivan P.S., Weitz J.S. **A framework for monitoring population immunity to SARS-CoV-2.** *Annals of Epidemiology 63: 75-78*. paper code website
4. Mruwat N., Carlson M.C.G., Goldin S., Ribalet F., Kirzner S., Hulata Y., **Beckett S.J.**, Shitrit D., Weitz J.S., Armbrust E.V., Lindell D. **A single-cell polony method reveals low levels of infected *Prochlorococcus* in oligotrophic waters despite high cyanophage abundances.** *The ISME Journal 15: 41-54.* paper

2020

5. Chande A., Lee S., Harris M., Nguyen Q.†, **Beckett S.J.**, Hilley T., Andris C., Weitz J.S. **Real-time, interactive website for US-county-level COVID-19 event risk assessment.** *Nature Human Behaviour 4: 1313-1319.* paper code website
6. 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., Rodgriguez-Gonzalez R.A., Shivam S., Zhao C.Y. **Modeling Shield Immunity to Reduce COVID-19 Epidemic Spread.** *Nature Medicine 26: 849-854.* paper code

2019

7. Benedetto B., Coenen A.R., **Beckett S.J.**, McGillicuddy Jr. D.J., Weitz J.S., Karl D.M. **The ecological and biogeochemical state of the North Pacific Subtropical Gyre is linked to sea surface height.** *Journal of Marine Research 77: 215-245.* paper
8. Talmy D., **Beckett S.J.**, Taniguchi D.A.A., Brussaard C.P.D., Weitz J.S., Follows, M.J. **An empirical model of carbon flow through marine viruses and microzooplankton grazers.** *Environmental Microbiology 21(6): 2171-2181.* paper
9. Talmy D.*, **Beckett S.J.***, Zhang A.B.†, Taniguchi D.A.A., Weitz J.S., Follows M.J. **Contrasting Controls on Microzooplankton Grazing and Viral Infection of Microbial Prey.** *Frontiers in Marine Science 6:182.* paper

2018

10. **Beckett S.J.**, Weitz J.S. **The Effect of Strain Level Diversity on Robust Inference of Virus-Induced Mortality of Phytoplankton.** *Frontiers in Microbiology 9:1850.* paper code

2017

11. Weitz J.S., **Beckett S.J.**, Brum J.R., Cael B.B., Dushoff J. **Lysis, lysogeny and virus–microbe ratios.** *Nature 549(7672): E1–E3.* paper code
12. **Beckett S.J.**, Weitz J.S. **Disentangling niche competition from grazing mortality in phytoplankton dilution experiments.** *PLOS one 12(5): e0177517.* paper code

2016

13. **Beckett S.J.** **Improved community detection in weighted bipartite networks.** *Royal Society Open Science 3: 140536.* paper code

2015

14. Cowley L.A., **Beckett S.J.**, Chase-Topping M., Perry N., Dallman T.J., Gally D.L., Jenkins C. **Analysis of whole genome sequencing for the *Escherichia coli* O157:H7 typing phages.** *BMC Genomics 16: 271*. paper

2014

15. **Beckett S.J.**, Boulton C.A., Williams H.T.P. **FALCON: a software package for analysis of nestedness in bipartite networks.** *F1000Research 3: 185 [v1 ;ref status: indexed, http://f1000r.es/3z8].* paper code

16. Watts A.J.R., Lewis C., Goodhead R.M., **Beckett S.J.**, Moger J., Tyler C.R., Galloway T.S. **Uptake and retention of microplastics by the shore crab *Carcinus maenas.*** *Environmental Science & Technology 48(15): 8823-8830.* paper

2013

17. **Beckett S.J.**, Williams H.T.P. **Coevolutionary diversification creates nested-modular structure in phage-bacteria interaction networks.** *Interface Focus 3: 20130033.* paper

In review:

1. **Beckett S.J.***, Demory D.*, Coenen A.R., Casey J.R., Dugenne M., Follett C.L., Connell P., Carlson M.C.G., Hu S.K., Wilson S.T., Muratore D., Rodriguez-Gonzalez R.A., Peng S., Becker K.W., Mende D.R., Armbrust E.V., Caron D.A., Lindell D., Follows M.J., White A.E., Ribalet F., Weitz J.S. **Diel population dynamics and mortality of *Prochlorococcus* in the North Pacific Subtropical Gyre**. *In review.* preprint code
2. Sinclair A.H., Taylor M.K., Brandel-Tanis F., Davidson A., Chande A.T., Rishishwar L., Andris C., Adcock R. A., Weitz J.S., Samenez-Larkin G.R., **Beckett S.J.** **Real-time Interventions Counteract COVID-19 Risk Misestimation in the United States.** *In review.* preprint
3. Sinclair A.H., Taylor M.K., Davidson A., Weitz J.S., **Beckett S.J.,** Samenez-Larkin G.R. **Scenario-Based Messages on Social Media Motivate COVID-19 Information Seeking.** *In review.* preprint

In preparation:

1. **Beckett S.J.**, Brandel-Tanis F., Nguyen Q., Chande A., Lee S., Rishishwar L., Andris C., Weitz J.S. **subregionalcovid19: global processing and mapping infectious cases of COVID-19 at subnational scales.** code

Reports

1. **Beckett S.J.**, Dominguez-Mirazo, M., Lee, S., Andris C., Weitz J.S. **Spread of COVID-19 through Georgia, USA. 2020. Near-term projections and impacts of social distancing via a metapopulation model.** preprint code website

Conference Organisation

Co-convenor and moderator at *2018 Ocean Sciences Meeting* for the session: *A Matter of Life and Death: The Role of Microbial Interactions in Mediating Biogeochemical Cycles*. Co-lead with David Talmy (UTK), Kyle Mayers (SOTON) and Elizabeth Harvey (UGA). Portland, USA (2018).

Organiser for the *4th Postdoctoral Research Symposium at Georgia Tech.* Acquired $8,500 in funds for awards to outstanding presenters, organised sessions, reviewed abstracts and coordinated the symposium. I also convened the symposium. Atlanta, USA (2017).

Presentations

Invited Talks

Modeling virus impacts across systems: from marine microbial communities to COVID-19. Louisiana State University, LA (USA), December 2020.

Quantifying the ecological relevance of grazing and viral lysis in marine microbial communities. University of Illinois at Chicago, IL (USA), March 2020.

Computational Marine Microbiology: Linking cellular interactions to population dynamics and ecosystem function. Marine Biological Association, Plymouth (UK), June 2019.

Diel with it: Data-model comparisons of diel ecological oscillations around station ALOHA. *Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2018,* Simons Foundation, NYC (USA), December 2018.

Quantifying the ecological relevance of viral lysis in complex microbial communities. Marine Biological Association & SAHFOS, Plymouth (UK), December 2017.

Estimating viral impacts on marine phytoplankton. *Microbial Dynamics seminar,* Georgia Institute of Technology, Atlanta (USA), October 2017.

Coevolved nestedness and modularity in model phage-bacteria infection networks. *Disease group seminar*, University of Exeter, Penryn Campus (UK), October 2013.

Contributed Talks

Aquatic Viral Workshop 10: Viral lysis, grazing and unaccounted *Prochlorococcus* losses in diel population dynamics in the NPSG. Virtual/Kyoto (Japan), June 2021.

Centre for Microbial Dynamics and Infection at Georgia Tech: Quantifying the ecological relevance of grazing and viral lysis in marine microbial communities. Atlanta, GA (USA), March 2020.

Physics of Living Systems seminar at Georgia Tech: Quantifying the ecological relevance of grazing and viral lysis in marine microbial communities. Atlanta, GA (USA), February 2020.

5th Postdoctoral Research Symposium at Georgia Tech: Viral Lysis vs. Grazing: Perspectives on Phytoplankton Mortality. Atlanta, GA (USA), September 2018.

Aquatic Viral Workshop 9: Viral Lysis vs. Grazing: Perspectives on Phytoplankton Mortality. Lincoln, NE (USA), June 2018.

ASLO 2017 Aquatic Sciences Meeting: Robustness and biases in estimating viral-induced plankton mortality. Honolulu, Hawai`i (USA), March 2017.

Aquatic Viral Workshop 8: Towards Modifying the Modified Dilution Method: Robustness and Biases in Estimating Viral-Induced Plankton Mortality. Plymouth (UK), July 2016.

Living systems: from interaction patterns to critical behavior: Can coevolution drive phage-bacteria network structure? San Servolo Island, Venice (Italy), September 2015.

Student Conference on Complexity Sciences: The usage of nestedness for the analysis of bipartite networks. Brighton (UK), August 2014.

Mathematical Models in Ecology and Evolution: Coevolved Nestedness and Modularity in model Phage-Bacteria Infection Networks. York (UK), August 2013.

Posters (only presented posters shown)

Models of Infectious Disease Agent Study Network Annual Meeting: 2021: **Beckett S.J.**, Chande A., Dominguez-Mirazo M., Lee S., Harris M., Hilley T., Nguyen Q., Andris C., Weitz J.S. Regional risk assessments: bringing actionable information to locales. Virtual, May 2021.

Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2020: **Beckett S.J.**, Demory D., Coenen A.R., Casey J.R., Follet C.L., Dugenne M., Connell P., Carlson M.C.G., Hu S.K., Muratore D., Wilson S.T., Rodriguez-Gonzalez R.A., Peng S., Becker K.W., Mende D.R., Armbrust E.V., Caron D., Lindell D., Follows M.J., White A., Ribalet F., Weitz J.S. Viral lysis, grazing and unaccounted *Prochlorococcus* losses revealed in diel population dynamics in the North Pacific Subtropical Gyre. Virtual, December 2020.

Ocean Sciences Meeting 2020: **Beckett S.J.**, Demory D., Coenen A.R., Casey J.R., Follet C.L., Dugenne M., Connell P., Carlson M.C.G., Hu S.K., Muratore D., Wilson S.T., Rodriguez-Gonzalez R.A., Peng S., Becker K.W., Mende D.R., Armbrust E.V., Caron D., Lindell D., Follows M.J., White A., Ribalet F., Weitz J.S. A day in the life of *Prochlorococcus*: Diel ecological oscillations of cyanobacteria, viruses and grazers in the North Pacific Subtropical Gyre. San Diego, CA (USA), February 2020.

Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2019: **Beckett S.J.**, Demory D., Coenen A.R., Casey J.R., Follet C.L., Dugenne M., Connell P., Carlson M.C.G., Hu S.K., Muratore D., Wilson S.T., Rodriguez-Gonzalez R.A., Peng S., Becker K.W., Mende D.R., Armbrust E.V., Caron D., Lindell D., Follows M.J., White A., Ribalet F., Weitz J.S. Estimating *Prochlorococcus* loss rates in north Pacific surface waters associated with viruses, grazers and "other". NYC (USA), December 2019.

Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2018: **Beckett S.J.**, Demory D., Coenen A.R., Muratore D., Casey J., Follet C.L., Dugenne M., Wilson S.T., Follows M.J., White A.E., Ribalet F., Weitz J.S.. Diel with it: Data-model comparisons of diel ecological oscillations at Station ALOHA. NYC (USA), December 2018.

Ocean Sciences Meeting 2018: **Beckett S.J.**, Weitz J.S. The Effect of Strain Level Diversity on Inference of Grazing and Viral-Induced Mortality. Portland, OR (USA), February 2018.

Suddath Symposium: The Chemical Ecology of Microbiome Interactions: **Beckett S.J.**, Weitz J.S. Mortality in a bottle: nonlinear feedbacks and biases when inferring viral-induced lysis of plankton. Georgia Tech. (USA), January 2018.

Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2017: **Beckett S.J.**, Weitz J.S. Mortality in a bottle: nonlinear feedbacks and biases when inferring viral-induced lysis of plankton. NYC (USA), December 2017.

Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2016: **Beckett S.J.**, Lindell D., Caron D., Weitz J.S. Theoretical ecology at sea: interpreting mortality rate measurements. NYC (USA), December 2016.

NAKFI conference: Discovering the Deep Blue Sea: Research, Innovation, Social Engagement: **Beckett S.J.**, Weitz J.S. Competition, diversity and disease: implications for plankton mortality rates. Irvine, CA (USA), November 2016.

3rd Postdoctoral Research Symposium at Georgia Tech: **Beckett S.J.**, Weitz J.S. Towards Modifying the Modified Dilution Method: Robustness and Biases in Estimating Viral-induced Plankton Mortality. Atlanta, GA (USA), September 2016.

School of Biology retreat: **Beckett S.J.**, Weitz J.S. Towards Modifying the Modified Dilution Method: Robustness and Biases in Estimating Viral-induced Plankton Mortality. Helen, GA (USA), August 2016.

Viruses of Microbes 2016: **Beckett S.J.**, Weitz J.S. Towards Modifying the Modified Dilution Method: Robustness and Biases in Estimating Viral-induced Plankton Mortality. Liverpool (UK), July 2016.

Simons Collaboration on Ocean Processes and Ecology Annual Meeting 2015: **Beckett S.J.**, Wigington C.H., Weitz J.S. Diel or no diel? Effectiveness of the dilution method for determining host mortality rates due to viruses. NYC (USA), December 2015.

Uncertainty in Interaction Networks: **Beckett S.J.**, Williams H.T.P. Coevolved nestedness and modularity in phage-bacteria infection networks. Bath (UK), June 2013.

Cambridge Networks Day: **Beckett S.J.**, Williams H.T.P. Coevolved nestedness and modularity in phage-bacteria infection networks. Cambridge (UK), May 2013.

Modelling Biological Evolution 2013: Recent Progress, Current Challenges and Future Directions: **Beckett S.J.**, Williams H.T.P. Coevolved nestedness and modularity in phage-bacteria infection networks. Leicester (UK), May 2013.

Viruses of Microbes 2012: **Beckett S.J.**, Williams H.T.P. Towards trait-based models for aquatic virology. Brussels (Belgium), July 2012.

Teaching experience

Guest lectures: (1) Predator-prey dynamics and evolutionary ecology **(2)** Evolutionary ecology and adaptive dynamics. "*Foundations of Quantitative Biosciences*". October/November 2017, October/ November 2018, October 2019. School of Biological Sciences, Georgia Institute of Technology. **(3)** Predator-prey dynamics and evolutionary ecology. "*Special Topic: Physics of Living Systems*". February 2018. School of Physics, Georgia Institute of Technology.

Seminars: Professional development seminar focussing on publications and the peer review process for the Quantitative Biosciences Graduate Program. May 2019. Georgia Institute of Technology.

Workshops: Instructor for Quantitative Biosciences Workshop on Epidemic modelling 2020, 2021. Georgia Institute of Technology.

Teaching assistant: multiple courses including "*Introduction to Ecology*" and "*Modelling for Biosciences*". 2012-2015. Biosciences, University of Exeter.

Professional community service

Mentorship

Co-mentored with **Joshua Weitz** at the Georgia Institute of Technology:

1) Caitlin Cheung, Undergraduate Researcher in Biomedical Engineering (2021 – 2022)
- – Data-driven insights to impacts of COVID-19 across county scales in the USA; and estimating temporal evolution of risk with respect to testing.

2) Quan Nguyen, Undergraduate Researcher in Chemical and Biomolecular Engineering (2020 –)
- – Developing interactive dashboards focussed on COVID-19 population-level immunity; and COVID-19 risk assessment analysis across multiple countries.
- – Research published in *Nature Human Behaviour* & *Annals of Epidemiology.*

3) Robert Morgan, Undergraduate Researcher in Biological Sciences (2019 – 2020)
- – Visualization of and interactive tutorials for ecological models. Supported Robert in applying for a President's Undergraduate Research Awards at Georgia Tech.

4) GuanLin Li, PhD in Quantitative Biosciences (2018 – 2019)
- – Timeseries inference and evolutionary dynamics of virus-microbe systems.
- – GuanLin is now a Quantitative Researcher at Chicago Trading Company.

5) Adam Zhang, Undergraduate Researcher in Mathematics (2017 – 2018)
- – Research contributed to the manuscript: "Contrasting controls on microzooplankton grazing and viral infection of microbial prey".
- – Adam completed a Data Science Internship at UPS and is now an Analyst at Variant.

6) Daniel Muratore, PhD in Quantitative Biosciences (2017 – 2019)
- – Microbial oceanographic modelling, game-theory and time-series data analysis.

7) Ashley Coenen, PhD in Physics (2016 – 2021)
- – Inferring ecological community structure from population dynamics.

8) Charles Wigington, PhD in Bioinformatics (2016 – 2017)
- – Quantifying relationships of oceanic virus-to-microbe ratios.
- – Charles is now a Data Scientist at Insulet Corporation.

9) Shengyun Peng, PhD in Bioinformatics (2015 – 2018)
- – Investigating virus-host infection from single cell and genomic perspectives.
- – Shengyun is now a Data Scientist with Adobe.

Memberships

Association for the Sciences of Limnology and Oceanography (ASLO); Models of Infectious Disease Agent Study (MIDAS); International Society for Viruses of Microorganisms (ISVM)

Scientific peer review

Reviewer for: Applied Network Science, Axios Review, BMJ Open, Communications Biology, Concurrency & Computation: Practice & Experience, Diversity, Ecology Letters, eLife, Europhysics Letters, Evolutionary Bioinformatics, FEMS Microbiology Ecology, Frontiers in Genetics, Frontiers in Marine Science, IEEE Access, IEEE Transactions on Computational Social Systems, Journal of Biological Physics, Journal of Intelligent & Fuzzy Systems, Knowledge and Information Systems, Limnology and Oceanography, Methods in Ecology and Evolution, Molecular Ecology, Nature Communications, Network Science, Oikos, Physica A: Statistical Mechanics and its Applications, PLOS Computational Biology, PLOS ONE, Scientific Reports, The ISME Journal, Viruses.

Laboratory Experience

- *Mortality Workshop*. Technion - Israel Institute of Technology, Haifa, Israel (Sept., 2019).

Outreach

- Collaborative work contributing to COVID-19 population level immunity dashboards to show how natural infections and vaccinations contribute to herd immunity (implementation ongoing).
- Collaboration with Mary Wang (Georgia Tech.) and Science.Art.Wonder to promote science through art. December 2020-March 2021. Science.Art.Wonder Showcase. Artwork: "Us".
- Collaborative work contributing to interactive COVID-19 event risk map dashboards for mapping risk in regional areas across multiple countries (implementation ongoing).
- Interactive data dashboard of COVID-19 metrics in Georgia as an interactive Rshiny app.
- Data Visualisations of COVID-19 spread in Georgia, showing time-lapses for recorded cases and deaths. April 2020.
- Hosted the science communication Twitter account @biotweeps (audience of over 18,000) for a week in March 2019, where I talked about modelling and marine viruses.
- Collaboration with Emily Madsen (Georgia Tech.) and Science.Art.Wonder to promote science via art. December 2018-April 2019. Atlanta Science Festival and Clough Art Crawl. Artwork: "Submerged" and "Through a Different Model".
- Collaboration with ceramic sculptor RJ Sturgess (Georgia State) and Science.Art.Wonder to promote science through art at the Atlanta Science Festival. December 2017 - March 2018. Artwork: "Delicate Balance" and "Phage studies 1-3".
- Educator supporting a massive open online course (MOOC) run by the University of Exeter and FutureLearn titled "*Climate Change: Challenges and Solutions*". Engaged with learners online and via weekly feedback videos. 2014.
- Run "Phage on toast" where I occasionally blog about my research and research experiences. Over 1000 visitors from 64 countries. (2013 – present).

Media

- **Beckett S.J.**, Weitz J.S. 2020. Georgia's Reopening Depended on Missing Data. *Slate* (Medical Examiner column). May 2020.

Press

- **Courier Post:** Holiday shopping in-person this year? Here are some ways to lower COVID risk
- **RStudio:** Communicating with 8 Million People through Shiny
- **Montana Public Radio:** How Risky Are Holiday Gatherings? Here's What Health Experts Say About COVID-19
- **WOGX Orlando:** Interactive map shows your risk of catching COVID-19 at an event
- **WABAY-TV Green Bay:** Interactive tool helps you understand risk factor of a gathering
- **WDAF-TV Kansas City:** Thanksgiving plans this year may be changing due to COVID-19
- **WHBQ-TV Memphis:** Researchers develop risk calculation tool for COVID-19 exposure
- **KSNV News 3 Las Vegas:** Tool shows risk of catching COVID-19 in group settings
- **KADN News15, Lafayette & Acadiana:** COVID-19 Risk Assessment Map
- **MetroLab/Government Technology:** Mapping Tool Visualizes COVID Risk of Different-Size Events. October 2020 Innovation of the month.
- **Business Insider:** A 'cuckoo' graph with no sense of time or place shows how Georgia bungled coronavirus data as it reopens
- **WABE:** Social Distancing Reduced Virus Spread By 50% In Georgia, Study Finds
- **GaTech College of Sciences:** Science Inspiring Art

Other Service

- Judged at the *15th Annual Undergraduate Research Spring Symposium*, Georgia Tech. Atlanta, USA (2021).
- Reviewer for President's Undergraduate Research Awards at Georgia Tech. Atlanta (2019).
- Judged at the *12th Annual Undergraduate Research Spring Symposium*, Georgia Tech. Atlanta, USA (2017).
- Lead GitHub demonstrations within the Weitz group at Georgia Tech to improve and aid the production of reproducible computational science (2015, 2016).
- Assisted with the Exeter Climate Change Exhibit at *Transformational Climate Science* conference. Exeter, UK (2014).
- Session chair at *Mathematical Models in Ecology and Evolution*. York, UK (2013).

References

Prof. **Joshua Weitz**
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Prof. **Hywel Williams**
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University of Exeter
722 Laver Building, North Park Road — +44 1392 723777
Exeter, EX4 4QE, UK

Prof. **Mick Follows**
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