

CONTACT	Andrew Basinski Stevens Point, WI 54481	Website: https://54481andrew.github.io/
EDUCATION	Ph.D., Mathematics University of Utah <i>Adviser: Dr. Frederick Adler</i>	August, 2016
	B.S., Biology University of Wisconsin-Stevens Point	Spring, 2009
	B.S., Mathematics University of Wisconsin-Stevens Point	Spring, 2009
APPOINTMENTS	Computational Data Scientist. Institute for Interdisciplinary Data Sciences, University of Idaho, Moscow, ID 83844	December, 2021 - Present
	Post-Doctoral Associate with Chris Remien and Scott Nuismer. Department of Mathematics, University of Idaho, Moscow, ID 83844	October, 2016 - November, 2021
RESEARCH EXPERIENCE	Disease forecasting models, machine learning, machine vision with convolutional neural networks, epidemiological models, spatial ecology, ODE and PDE numerical simulation and analysis, stochastic models, agent-based simulation	
PUBLICATIONS	<ul style="list-style-type: none"> • Varrelman TJ, Remien CH, Basinski AJ, et al. Quantifying the effectiveness of betaherpesvirus-vectored transmissible vaccines. <i>Proceedings of the National Academy of Sciences</i> 119.4 (2022) • Basinski AJ, Fichet-Calvet EJ, Sjodin AR, et al. Bridging the gap: Using reservoir ecology and human sero-surveys to estimate Lassa incidence in West Africa. <i>PLoS Computational Biology</i> 17.3 (2021). • Layman NC, Tuschhoff BM, Basinski AJ, et al. Suppressing evolution in genetically engineered systems through repeated supplementation. <i>Evolutionary Applications</i> 14.2 (2020). • Schreiner CL, Nuismer SL, Basinski AJ. When to vaccinate a fluctuating wildlife population: is timing everything? <i>Journal of Applied Ecology</i> 57.2 (2020). • Nuismer SL, Remien CH, Basinski AJ, et al. Bayesian estimation of Lassa virus epidemiological parameters: implications for spillover prevention using wildlife vaccination. <i>PLoS Neglected Tropical Diseases</i> 14.9 (2020). 	

PUBLICATIONS
(CONTINUED)

- **Basinski AJ**, Nuismer SL, Remien CH. A little goes a long way: Weak vaccine transmission facilitates oral vaccination campaigns against zoonotic pathogens. *PLoS Neglected Tropical Diseases* 13.3 (2019).
- Smithson MW, **Basinski AJ**, Nuismer SL, Bull JJ. Transmissible vaccines whose dissemination rates vary through time, with applications to wildlife. *Vaccine* 37.9 (2019).
- Varrelman TJ, **Basinski AJ**, Remien CH, Nuismer SL. Transmissible vaccines in heterogeneous populations: Implications for vaccine design. *One Health* 7 (2019).
- Nuismer SL, May RH, **Basinski AJ**, Remien CH. Controlling epidemics with transmissible vaccines. *PloS One* 13.5 (2018).
- **Basinski AJ**, Varrelman TJ, Smithson MW, et al. Evaluating the promise of recombinant transmissible vaccines. *Vaccine* 36.5 (2018).

PRESENTATIONS

- Univ. Idaho Math Colloquium**, Moscow, ID, US Feb., 2021
Talk: Using mathematics and machine learning to guide the control of human pathogens in wildlife
- MIDAS Meeting**, Washington DC, US April, 2018
Talk: The benefits and challenges of using transmissible vaccines in zoonotic vaccination campaigns
- Society for Mathematical Biology**, SLC, UT, US July, 2017
Poster: Evaluating the Promise of Recombinant Transmissible Vaccines
- Science Day**, SLC, UT, US Nov., 2013/2014
Talk: Can Ants Do Calculus?
- Society for Mathematical Biology**, Tempe, AZ, US June, 2014
Talk: The effects of colony structure on resource collection ability
- Univ. Utah Biology Retreat**, SLC, UT, US Oct., 2013
Poster: The Consequences of Owning Multiple Homes: Polydomy in Ants

SCIENTIFIC
COMPUTING

R, Python, Github, Mathematica, C++, L^AT_EX, Linux systems

TEACHING
EXPERIENCE

Math In Medicine (Math 4600) Spring, 2015
Calculus III (Math 2210) Fall, 2014
Glendale Middle School Advanced Science Fall, 2011 - Spr., 2012
Calculus I (Math 1210) Fall, 2010
Business Calculus (Math 1210) Spr., 2011, Spr., 2010
 Fall, 2009

TEACHING ASSISTANT EXPERIENCE	Calculus II (Math 1320) PDE's for Engineers (Math 3140) Math in Medicine (Math 4600) Math Models In Biol (Biol 5910) Math Biology I (Math 5110)	Spring, 2016 Fall, 2015 Spr., 2013, Spr., 2014 Fall, 2013 Fall, 2012
STUDENT RESEARCH	Mentor for Courtney Schreiner (wildlife vaccination)	2018-
AWARDS, HONORS, FELLOWSHIPS	Graduate Teaching Fellowship , Mathematics RTG Teaching Fellowship in Math. Biology SCIF Grant WEST Fellowship	Fall, 2009 - Spr., 2011 Fall, 2014 - 2016 Fall, 2012 - Spr., 2014 Summer, 2012 Fall, 2011 - Spr., 2012
ACADEMIC SERVICE	Journal Reviews for Oecologia, PLOS ONE, Journal of Theoretical Biology. F1000 member. Designed and ran Society of Math Biology booth at USA Science and Engineering Festival in Washington D.C.	2013 - 2016 April, 2014

REFERENCES

Available upon request