

# CURRICULUM VITAE

University of Idaho

**NAME:** Baumgaertner, Bert Otto

**DATE:** August 16, 2021

**RANK OR TITLE:** Associate Professor of Philosophy

**DEPARTMENT:** Department of Politics and Philosophy

**OFFICE LOCATION AND CAMPUS ZIP:** Admin 322A

**OFFICE PHONE:** 208-885-5997

**FAX:** N/A

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**WEB:** www.bertbaum.com

**DATE OF FIRST EMPLOYMENT AT UI:** June 2013

**DATE OF TENURE:** Fall 2019

**DATE OF PRESENT RANK OR TITLE:** 2019

## **EDUCATION BEYOND HIGH SCHOOL:**

### **Degrees:**

Ph.D., University of California, Davis, Davis, CA, 2013, Philosophy.

B.A., Wilfrid Laurier University, Waterloo, Ontario, 2007, Philosophy.

**Certificates and Licenses:** N/A

## **EXPERIENCE:**

### **Teaching, Extension and Research Appointments:**

2019-present, Associate Professor, University of Idaho

2013-2019, Assistant Professor, University of Idaho

2009-2012, Instructor, University of California, Davis

2008-2011, Teaching Assistant, University of California, Davis

### **Administrative Appointments:**

Fall 2020, Acting Department Chair

**Non-Academic Employment including Armed Forces:** N/A

**Consulting:** N/A

## **TEACHING ACCOMPLISHMENTS:**

### **Areas of Specialization:**

Philosophy of Science, Epistemology, Mind and Language, Decision Theory

### **Courses Taught:**

Directed Study: Relevance Logic, Spring 2020

Senior Seminar, PHIL 490, Spring 2020

Intro to Symbolic Logic, PHIL 202, Spring 2020

Theory of Knowledge, PHIL 447, Spring 2020

Teaching Methods in Philosophy, PHIL 496, Spring 2020  
 Intro to Decision Theory, PHIL 312, Fall 2020  
 Directed Study: Philosophy of Math, PHIL 499, Fall 2020  
 Directed Study: Non-classical Logic, PHIL 499, Fall 2020  
 Senior Seminar (J.S. Mill Today), PHIL 490, Spring 2020  
 History of Modern Philosophy, PHIL 321, Spring 2020  
 Intro to Symbolic Logic, PHIL 202, Spring 2020  
 Directed Study: Non-classical Logic, PHIL 499, Spring 2019  
 History of Modern Philosophy, PHIL 321, Spring 2019  
 Senior Seminar (Philosophy of Language), PHIL 490, Spring 2019  
 Intro to Symbolic Logic, PHIL 202, Fall 2018  
 Philosophy of Mind, PHIL 442, Fall 2018  
 Special Topics: Thought Experiments, Simulations, and Models, PHIL 404, Fall 2018  
 Senior Seminar (Philosophical Methods), PHIL 490, Spring 2018  
 Directed Study: Non-classical Logic, PHIL 499, Spring 2018  
 Intro to Symbolic Logic, PHIL 202, Fall 2017  
 Philosophy of Alcohol, PHIL200, Spring 2017  
 Intro to Symbolic Logic, PHIL 202, Fall 2016  
 Philosophy of Science, PHIL 351, Fall 2016  
 Advanced Logic (Directed Study), Fall 2016  
 Intro to Symbolic Logic, PHIL 202, Fall 2015  
 Environmental Philosophy, PHIL 452/552 and ENVS 552, Fall 2015  
 Philosophy of Perception (Directed Study), PHIL 499 Fall 2015  
 Belief and Reality, PHIL 240, Spring 2015  
 Senior Seminar (Phil. of Evolution), PHIL 490, Spring 2015  
 Opinion Dynamics (Directed Study), Spring 2015  
 Intro to Symbolic Logic, PHIL 202, Fall 2014  
 Environmental Philosophy, PHIL 452/552 and ENVS 552, Fall 2014  
 Philosophy of Language, PHIL 443, Fall 2014  
 Belief and Reality, PHIL 240, Spring 2014  
 Philosophy of Science, PHIL 351, Spring 2014  
 Advanced Logic (Directed Study), Spring 2014  
 Intro to Symbolic Logic, PHIL 202, Fall 2013  
 Environmental Philosophy, PHIL 452/552 and ENVS 552, Fall 2013

### Students Advised:

Undergraduate Students: Roughly 30 as of Spring 2018. In addition, my lab has included the following:

Garret Caudle, graduated 2019 (Philosophy, U.Idaho)  
 Nova Tebbe, graduated 2019 (Philosophy and Biology, U. Idaho)  
 Camden Clark, graduated 2019 (Computer Science, U. Idaho) □  
 Emma Bateman, graduated 2018 (Computer Science, U. Idaho)  
 Emma Carson, graduated 2018 (Political Science, U. Idaho)  
 Jordan Kizer, graduated 2018 (Political Science, U. Idaho)  
 Dorothy Catey, graduated 2018 (Math, U. Idaho) □  
 Peter Fetros, graduate 2018 (Engineering, U. Idaho) □  
 Cody Briston, graduated 2016 (Philosophy, U. Idaho) □  
 Cassie Greenwald, graduated 2016 (Philosophy, U. Idaho)  
 Crystal Hernandez, graduated 2016 (Philosophy, U. Idaho)  
 Kaitlyn Hanks, graduated 2016 (Environmental Sciences, U. Idaho)  
 Jennifer Stephenson, graduated 2016 (Environmental Sciences, U. Idaho)  
 Zach Hull, graduated 2015 (Environmental Sciences, U. Idaho)  
 Brendan McConnor, graduated 2015 (Environmental Sciences, U. Idaho)

Graduate Students:

Major professor:

Kelly Christensen, Masters Student, Mathematics (2017-2019)  
 Victoria DePalma, Doctoral Student, Environmental Sciences (graduated 2019)  
 Joseph DeAguero, Doctoral Student, Bioinformatics and Computational Biology (switched)

to masters and changed advisors in 3<sup>rd</sup> year)  
Jeannie Matheison, Masters Student, Environmental Sciences

**Graduate Committees:**

University of Idaho:

Marcie Galbreath, PhD, Department of Education, Fall 2015  
Brett Miller, M.S., Environmental Sciences, Spring 2015  
Jesse Oldroyd, PhD, Department of Mathematics, Spring 2016  
Siavash Riazi, PhD, Bioinformatics and Computational Biology, (temporary)  
Danielle Gentry, M.S., Environmental Sciences, Fall 2016  
Kristen Petersen, M.S., Statistics, Spring 2016  
Malcom Rupert, PhD, Department of Mathematics, Spring 2017

University of British Columbia, Okanagan:

Jimit Majmudar, Masters Student, Mathematics, Spring 2016

**Courses Developed:**

Theory of Knowledge  
Decision Theory, PHIL 312  
Philosophy of Mind, PHIL 442  
Philosophical Methods (Senior Seminar), PHIL 490  
Philosophy of Alcohol, PHIL 200  
Environmental Philosophy, PHIL 454/552 and ENVS 552  
Intro to Symbolic Logic, PHIL 202  
Advanced Logic, (directed study)  
Belief and Reality, PHIL 240  
Philosophy of Evolution (Senior Seminar), PHIL 490  
Philosophy of Science, PHIL 351  
Philosophy of Language, PHIL 443

**Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:**

“Perspectives on Disagreement: When to dig in and when to compromise?” Effective Communication Skills for Applied Mathematicians - <https://ecsam.ca/module-5/>, June 3, 2021  
“Motivated Disagreement and Vaccination Decisions” guest lecture for Tara Roberts, Mar 30, 2021  
“Peer observation and mentoring” guest panelist at CETL Workshop, Mar 2, 2021  
“The Concepts of Herd Immunity” guest lecture for Aleta Quinn, Feb 23, 2021  
“Modeling Social Behavior” guest lecture for Charlie Lassiter, Gonzaga, Nov 10, 2020  
“Scorekeeping in a Language Game” guest lecture for Casey Johnson, PHIL 443, Oct 22, 2020  
“Risk and Willingness to Vaccinate” Malcom Renfrew Interdisciplinary Colloquium, Sep 15, 2020  
“Carnap’s Elimination of Metaphysics” guest lecture for Casey Johnson, PHIL 443, Sep 9, 2020  
“Tragedy of the Commons” video guest lecture with Aleta Quinn, ENVS 101, March 23, 2020  
“Mill and Echo Chambers” video guest lecture for Barb Cosens, March 23, 2020  
“Tragedy of the Commons” invited guest lecture, ENVS 101, March 1, 2019  
“An Overview of Projects in the Social Epidemiology Working Group”, CMCI Brown Bag Lunch, Oct 9, 2017  
“Tragedy of the Commons” invited guest lecture, ENVS 400 (J.D. Wulfhorst), September 19, 2017  
“Ways of Knowing” invited guest lectures, WR 506 (Barbara Cosens), August 29 and Sept 5, 2017  
“History and Philosophy of Reproducibility” Reproducibility Workshop (sponsored by UI VIP Grant), September 22, 2017  
“Issues and Ethics in Science” invited guest lecture at WSU by Matt Carroll and Kent Keller, February 8, 2017  
“Social Influence and Infectious Disease” Ecological and Evolutionary Drivers of Human Health and Welfare, U. Idaho IBEST Symposium, May 18, 2017  
“Tragedy of the Commons” invited guest lecture, ENVS 400 (Lee Vierling), January 17, 2017  
“Opinion Dynamics and Climate Change” UIdeas Symposium, University of Idaho, April 21, 2016  
Panelist on authorship, Center for Modeling Complex Interactions, April 18, 2016  
“An Update on Project 3” CMCI Brown Bag Lunch, November 14, 2016  
“Opinion strength influences the spatial dynamics of opinion formation” U. Idaho Physics Seminar,

February 22, 2016

- “Agent-based models of viral co-infection” research update for CMCI External Advisory Committee, University of Idaho, November 13, 2015
- “Intro to Signaling Games” presentation for NC A&T collaborators as part of NSF BEACON grant, NC A&T, North Carolina, September 17, 2015
- “Behavior and Disease Dynamics” talk for CMCI Brown Bag Lunch series, University of Idaho, July 13, 2015
- “The Meme Perspective” guest lecture for ISEM 301: Information and Society, University of Idaho, March 26, 2015
- “Signals and Interactions” lead discussant for Science, Culture and Society, University of Idaho, March 23, 2015
- “Computational Philosophy” presentation for Computer Science Colloquium, University of Idaho, March 9, 2015
- “Two applications of agent-based modeling” presentation for Undergraduate Biology and Math students, University of Idaho, February 19, 2015.
- “Opinion Dynamics” IBEST update talk, University of Idaho, November 13, 2014
- “Agent-based modeling in philosophy” invited lecture for Computer Science Seminar, University of Idaho, March 24, 2013
- “Agent-Based Models as Mixed-level: Lessons from *E.coli*” poster at Annual IBEST Science Expo, University of Idaho, October 18, 2013

#### Teaching Honors and Awards:

Think Open Fellow Award, University of Idaho, 2021-2022

#### SCHOLARSHIP ACCOMPLISHMENTS:

##### Publications:

##### Refereed Journal Articles (18):

McBrayer, M., Baumgaertner, B., Justwan, F. (accepted August 4, 2021) “The Effects of COVID-19 on Political Efficacy” *American Politics Research*

Rebecca C. Tyson, Noah M. Marshall\*, Bert Baumgaertner (conditional acceptance August 3, 2021) “Transient prophylaxis and multiple epidemic waves” *Mathematics in Science and Industry*

Baumgaertner, B., Benjamin J. Ridenhour, Florian Justwan, Juliet E. Carlisle, Craig R. Miller (2020) “Risk of disease and willingness to vaccinate in the United States: a population-based survey” *PLOS Medicine*, 17(10): e1003354 <https://doi.org/10.1371/journal.pmed.1003354>

Majmudar, J.R., Krone, S.M., Baumgaertner, B.O., Tyson, R.C. (2020) “Voter models and external influence” *The Journal of Mathematical Sociology*, Vol.44, No.1, (Online June 14, 2019), <https://doi.org/10.1080/0022250X.2019.1625349>

Tyson, R., Baumgaertner, B., Hamilton, S.\*, Lo, A., Krone, S. (2020) “The timing and nature of behavioural responses affect the course of an epidemic” *Mathematical Bulletin of Biology*, Vol.82, No.14 (Online January 14, 2019) <https://doi.org/10.1007/s11538-019-00684-z>

Baumgaertner, Bert. 2019. “Groupstrapping, Bootstrapping, and Oops-strapping: A Reply to Boyd.” *Social Epistemology Review and Reply Collective* 8 (6): 4-7. <https://wp.me/p1Bfg0-4bE>

Florian Justwan, Bert Baumgaertner, Juliet E. Carlisle, Emma Carson\*, Jordan Kizer\* (2019) “The effect of trust and proximity on vaccine propensity” *PLoS ONE* 14(8): e0220658. <https://doi.org/10.1371/journal.pone.0220658>

Devezer, B., Nardin, L.G., Baumgaertner, B., Buzbas, E. (2019) “Scientific discovery in a model-

centric framework: Reproducibility, innovation, and epistemic diversity” *PLoS ONE*, Vol. 14, No. 5, e0216125, (Online May 15, 2019) <https://doi.org/10.1371/journal.pone.0216125>

Baumgaertner, B., Fetros, P., Tyson, R., Krone, S. (2018) “Spatial Opinion Dynamics and the Effects of Two Types of Mixing” *Physical Review E*, Vol. 98, No. 2, 022310-23, (Online August 13, 2018) DOI 10.1103/PhysRevE.98.022310.

Baumgaertner, B., Carlisle, J., Justwan, F. (2018) “The Influence of Political Ideology and Trust on Willingness to Vaccinate” *PLoS ONE*, Vol. 13, No. 1, e0191728.

Justwan, F., Baumgaertner, B., Carlisle, J., Clark, A., Clark, M. (2018) “Social Media Echo Chambers and Satisfaction with Democracy among Democrats and Republicans in the Aftermath of the 2016 U.S. Elections” *Journal of Elections, Public Opinion & Parties* Vol. 28, No. 4, 424-442, DOI 10.1080/17457289.2018.1434784.

Baumgaertner, B. (2018) “Models of Opinion Dynamics and Mill-style Arguments for Opinion Diversity” *Historical Social Research (Special Issue: Agent-Based Modeling in Social Science, History, and Philosophy)* Vol. 43, No. 1, 210-33.

Baumgaertner, B. and Holthuijzen, W. (2017) “Non-epistemic Values and Concerns about Evolutionary Mindsets in Conservation Policy: A Response to Kareiva and Fuller’s ‘Beyond Resilience’ ” *Global Policy*, (Online July 17, 2017).

Baumgaertner, B. and Holthuijzen, W. (2016) “On Non-Epistemic Values in Conservation Biology” *Conservation Biology*, Vol. 31, No. 1, 48-55.

Roe, S. and Baumgaertner, B. (2016) “Extended Mechanistic Explanations: Expanding the current mechanistic conception to include more complex biological systems” *Journal for General Philosophy of Science*, (Online Oct 21, 2016) 1-18.

Luis G. Nardin, Craig R. Miller, Benjamin J. Ridenhour, Stephen M. Krone, Paul Joyce, Bert O. Baumgaertner (2016) “Planning horizon affects prophylactic decision-making and epidemic dynamics” *PeerJ*, 4:e2678 .

Baumgaertner, B., Tyson, R., Krone, S. (2016) “Opinion strength influences the spatial dynamics of opinion formation” *The Journal of Mathematical Sociology*, Vol. 40, No. 4, 207-218.

Banzhaf, W., Baumgaertner, B., Beslon, G., Doursat, R., Foster, J.A., McMullin, B., Veloso de Melo, V., Miconi, T., Spector, L., Stepney, S., White, R., (2016) “Defining and Simulating Open-Ended Novelty: Requirements, Guidelines, and Challenges” *Theory in Biosciences*, Vol. 131, No. 3, 131-161.

Baumgaertner, Bert. “Yes, No, Maybe So: A Veritistic Approach to Echo Chambers Using a Trichotomous Belief Model”. *Synthese*. Vol. 191, No. 11, 2014, pp. 2549-2569.

Baumgaertner, Bert, Astrid Weiss. Do Emotions Matter in the Ethics of Human-Robot Interaction? – Artificial Empathy and Companion Robots. In *Proceedings of the 3<sup>rd</sup> International Symposium on New Frontiers in Human-Robot Interaction*, 2014.

Baumgaertner, Bert. Smooth yet Discrete: Modeling both Non-Transitivity and the Smoothness of Graded Categories with Discrete Classification Rules. *Minds and Machines*. Vol. 24, No. 3, 2013, pp. 353-370.

#### Submitted Journal Articles:

Baumgaertner, B., Justwan, F. (submitted) "The preference for belief, echo chambers, and issue polarization"

Justwan, F., Baumgaertner, B., Curtright, Madeleine\* (submitted) ``Meddling in the 2016 Elections and Satisfaction with Democracy in the US"

Baumgaertner, B., Devezer, B., Nardin, L.G., Buzbas, E. "A Model-Centric Analysis of Openness, Replication, and Reproducibility" <https://arxiv.org/abs/1811.04525> □

Baumgaertner, B. and Molyneux, B. (submitted) "Complexity and Philosophical Cognition" (10,500 words)

### **Presentations and Other Creative Activities:**

#### **Refereed Submissions:**

"Model and Theory Development from an Epidemiological Perspective", Philosophy of Science Association Biannual Meeting, Seattle, WA, November 1-4, 2018.

"The Backfire Effect in Opinion Dynamics" Computational Modeling in Philosophy, LMU, Munich, Germany, June 22-23, 2018.

"Spatial Opinion Dynamics and the Effects of Two Types of Mixing", International Congress on Agent Computing, George Mason University, Fairfax, Virginia, November 29- 30, 2016.

(Poster Presentation) "Some Philosophical Challenges Concerning the Inclusion of Social Norms in Epidemiological Models", Philosophy of Science Association Biennial Meeting, Atlanta, Georgia, November 3-5, 2016.

"Spatial dynamics of mathematical models of opinion formation", Computationally Assisted Discovery and Experimental Mathematics, Western University, London, Canada, May 12-15, 2016.

"Imperfect Observations Produce Asymmetric Signaling Roles", Northwest Philosophy Conference, North Idaho College, Coeur d'Alene, Idaho, October 9-10, 2015.

"Belief Amplification and Imitation in an Extended Voter Model", Agent-Based Modeling in Philosophy, LMU, Munich, Germany, December 11-13, 2014.

"The Importance of the Environment in Complex Modeling Practices: a Response to Craver and Bechtel" (with Sarah Roe), Western Canadian Philosophical Association 2014 Annual Meeting, Vancouver, British Columbia, October 3-5, 2014.

"A Limiting Case for the New Mechanists: Intra-level Causation is Insufficient for Modeling Complex Biological Systems" (with Sarah Roe), Philosophy of Biology at Madison, Madison, Wisconsin, May 30-June 1, 2014.

"Agent-Based Models as Mixed-level: Lessons from E.coli", Conference on Reduction and Emergence in the Sciences, Munich, Germany, November 14-16, 2013.

"Reflective Inequilibrium", 65th annual Northwest Philosophy Conference, Pacific University, Forest Grove, Oregon, October 4-5, 2013.

#### **Invited:**

"Representation and Modeling of the COVID Outbreak" panelist in Symposium on Ethics of COVID-19 Science, March 19, 2021

"Motivated Disagreement and Vaccination Decisions" Project ECHO, a virtual forum connecting Idaho's rural health care workforce for continuing education and collaboration, March 16, 2021

"Scientific Discovery, Reproducibility, and Open Science" with Berna Devezer, Renfrew Interdisciplinary Colloquium, University of Idaho, February 5, 2019

"How Values, Trust, and Socio-Political Context Shape Vaccination Attitudes" American Association

for the Advancement of Science Pacific Division, Pomona, CA, June 12-15, 2018.

“Disagreement”, Keynote Address at The Confluence Project (Youth Water Summit), North Idaho College, Couer d'Alene, Idaho, May 22, 2018.

“Perspectives on Disagreement”, Keynote Address at OUR Gem Symposium, Couer d'Alene, Idaho, November 14, 2017.

“The Philosophy and Science of Modeling Infectious Disease”, The Annual Norbert Wiener Address on Science and Ethics, South Connecticut State University, March 30, 2017.

“How too much structure inhibits the marketplace of ideas”, Breaking Barriers: Idaho Local Government Economic Development Summit, Boise, Idaho, October 11, 2016.

“Disjunctive Signaling Games”, University of Edinburgh, Scotland, July 8, 2016.

“Mathematical and Computational Methods in Philosophy”, Computational Ecology Research Group, University of British Columbia, Okanagan, May 26, 2016.

“Opinion strength influences the spatial dynamics of opinion formation”, Spring Colloquium Series, Department of Philosophy, Simon Fraser University, January 29, 2016.

“Modeling Opinion Dynamics about Climate Change” invited talk at Malcom. M. Renfrew Interdisciplinary Colloquium, University of Idaho, November 4, 2014.

#### **Professional Meetings:**

Conference co-organizer, Inland Northwest Philosophy Conference, April 13-16, 2016

Conference co-organizer, Inland Northwest Philosophy Conference, July 31-August 1, 2014

#### **Grants and Contracts Awarded:**

“Disagreement: From Theory to Practice and Back” supported by University of Idaho Seed Grant, 2018-2019, \$11,427

“Theory, practice, and social aspects of reproducible science” supported by U. Idaho Office of Research and Economic Development, 2016-2017, \$40,000

“Simulating Signals and Security” supported by NSF BEACON Science and Technology Center on “Evolution in Action” 2015-2016. \$97, 707

“Agent-based models of viral co-infection” supported by NIH COBRE P20 GM104420, 2015-2018, \$126, 552/yr

“Opinion dynamics and the race against climate change” supported by Kurt Olsson Early Career Research Fellowship, College of Letters, Arts, and Social Science, University of Idaho, 2014-2015. \$11, 241

#### **SERVICE:**

##### **Major Committee Assignments:**

Member, COVID Advisory Committee, U. Idaho, Spring 2021

Member, University Curriculum Committee, U. Idaho, 2018-2021

Chair, Program Review Committee, North Idaho College, Spring 2017

Member, Dept. Chair Search Committee, Department of Politics and Philosophy, U. Idaho, Spring 2016

Member, Hiring Committee (Science & Ethics), Philosophy, U. Idaho, 2016-17

Member, Hiring Committee (Social/Political), Philosophy, U. Idaho, 2016-17

Member, Hiring Committee (Political Science), Department of Politics and Philosophy, U. Idaho;

Member, Tenure Committee for Alex Woo, Department of Mathematics, U. Idaho, Spring 2016

Head, Instructor Hiring Committee, Department of Philosophy, U. Idaho, Fall 2015

Member, Curriculum Committee, CLASS, U. Idaho, 2014-2015

Member, Promotion and Tenure Committee, CLASS, U. Idaho, 2013-2014

**Professional and Scholarly Organizations:**

Member, American Philosophical Association

Member, Canadian Philosophical Association

International Association for Computing and Philosophy

**Outreach Service:**

Advisory Board Member, Efficient Public Collaborative, Idaho, May 2019 - present

Keynote Address, Youth Water Summit, Coeur d'Alene, Idaho, Spring 2018

Keynote Address, OUR Gem Symposium, Coeur d'Alene, Idaho, Fall 2017

Speaker, Breaking Barriers: Local Government and Economic Development Summit, Boise, Idaho, October 11, 2016

Speaker, UIdeas Symposium, U. Idaho Sustainability Center, April 21, 2016

Panelist for "The Blackfish Effect" and Activism, University of Idaho, October 17<sup>th</sup>, 2014

**Community Service:** None

**Honors and Awards:** None

**PROFESSIONAL DEVELOPMENTS: (workshops and seminars attended)**

**Teaching:**

Restorative Practices and Circles Training (two certificates), University of Idaho, April 2015

Safe Zone Training, Diversity and Human Rights, University of Idaho, Spring 2014

**Scholarship:**

Learning and Gaining from your Model: A Course in Analysis, Application, and Publication of Individual/Agent-Based Models, Technische Universität Dresden, June-July 2016

NIMBioS Tutorial - Game Theoretical Modeling of Evolution in Structured Populations, April 25-27, 2016

Write Winning Grant Proposals (by the Grant Writer's Seminars and Workshops in association with the Idaho INBRE Program), Coeur D'Alene, October 2015

**Outreach:**

BEACON Congress meeting, Lansing, Michigan, August, 2015

**Administration/Management:**

Business for Scientists - Leading and Sustaining your Research Program, Institute for Bioinformatics and Evolutionary Studies, University of Idaho, June 2015.