

**S. G. Sterrett**

Curtis D. Gridley Distinguished Professor of History & Philosophy of Science  
Department of Philosophy  
Wichita State University, Wichita, Kansas  
email: susan.sterrett@wichita.edu or susangsterrett@gmail.com

Webpage: <http://susangsterrett.com>

**EDUCATION**

Ph.D. Philosophy, University of Pittsburgh, Department of Philosophy	1999
M. A. Philosophy, University of Pittsburgh, Department of Philosophy	1988
M. A. Mathematics, University of Pittsburgh, Department of Mathematics	1987
B. S. Cornell University, College of Engineering (with distinction) Major: College Program in Engineering Science, Concentration: Theoretical & Applied Mechanics	1977

**WORK EXPERIENCE**

**Academic Positions:**

August 2013 - present	Curtis D. Gridley Distinguished Professor of History and Philosophy of Science, Department of Philosophy, Wichita State University
January 2010 - July 2013	Special Faculty - Research Associate, Department of Philosophy Carnegie Mellon University, Pittsburgh, PA
Spring 2010	Visiting Fellow, Center for the Philosophy of Science University of Pittsburgh, Pittsburgh, PA
August 2000 - December 2009	Assistant Professor, Department of Philosophy Duke University, Durham, NC

**Undergraduate and Graduate Student Research/Teaching Assistantships and Fellowships:**

While a graduate student, I held positions as a teaching assistant in the Department of Mathematics (2 years), as a Research Assistant at the University of Pittsburgh's Learning Research and Development Center (1 + years), and as a teaching assistant in the Department of Philosophy. (4+ years). I was also awarded a Mellon Dissertation Fellowship (1 year).

**Non-academic positions post-baccalaureate but prior to academic career:**

1978 - 1984	Associate Engineer, Westinghouse Electric Corporation
1991 - 1998	Engineering consultant, Westinghouse Electric Corporation. (Intermittent temporary contracts during graduate school)

## RESEARCH INTERESTS

My research interests are in history and philosophy of science. Much of my work concerns models and analogical reasoning in some way, whether in physics, geophysics, biology (Darwin), ecology, cognitive science, or artificial intelligence. They can be loosely grouped into 5 intersecting topics:

1. Physical Similarity, Model Experiments, and Physically Similar Systems. Similarity concepts are recognized as important in the sciences. I've explained that the concept of similarity in physics is distinctively different from similarity concepts in psychology and argued for the importance of the concept in philosophy of science. Related recent major works include: "Physically Similar Systems: a history of the concept" and "Experimentation on Analogue Models", both in *Model-Based Science*. The forthcoming "Scale Modeling", in *Routledge Handbook of the Philosophy of Engineering* explicitly lays out the generalization of similarity from geometric similarity to physical similarity. The generalization involves not only mathematics, but foundations of physics and metrology (theory of measurement), too.

Similarity in physics is characterized in terms of dimensionless parameters, and thus the concept is related to foundational issues in dimensional analysis and metrology. My 2009 "Similarity and Dimensional Analysis" sketched out that relationship. Among philosophers of science living today, my work and knowledge on this topic sets me apart. It was one of the areas specifically cited in my election as an AAAS Fellow in 2016. (<https://www.susangsterrett.com/2016-aaas-fellow.html> )

2. Theory of measurement and the theory of dimensions in science. Delving deeply into the logical structure of the arguments underlying the use of physical similarity in models led me to this related but distinct topic. Related recent major works: the entry for "Theory of Dimensions" in *Routledge Companion to the Philosophy of Physics*, which delves into the foundations of dimensional analysis and metrology; "Relations Between Units and Relations Between Quantities", accepted for a special issue of *JGPS* on the recent reform of the International System of Units ("New SI") but actually published in an anthology. I also presented a poster at the 2018 Biennial Philosophy of Science Association meeting on "The Role of Base Units in a System of Units."

3. Intellectual history: the impact of similarity and models in physics on 20<sup>th</sup> century philosophical works often thought of as works about language rather than science. My recent "Pictures, Models, and Measures" supplements the historical context provided in my 2005/6 book *Wittgenstein Flies a Kite: A Story of Models of Wings and Models of the World*. This new, unprecedented work uncovering the ubiquity of miniature models in the popular culture of the era (the "model maker" movement) was noted in the international exhibition in Vienna in October 2018 commemorating 100 years since completion of the *Tractatus* ("Tractatus Odyssee" / Wittgenstein Initiative) and appeared in the book accompanying the exhibition. I use historical and analytical approaches in conjunction. My "How Many Thoughts Can Fit in the Form of a Proposition?", on Frege, just appeared in print.

4. Analogy. A theme running through my critical-historical works is analogy. Recent work includes: "Mach on Analogy in Science" (forthcoming) I was a keynote speaker at a workshop on Models & Analogies at UNAM (Mexico) in 2018. I have been giving successively revised versions of my "Analogous Principles: the use of analogy in the work of Einstein, Darwin and Turing" for several years, most recently as the Jemison Visiting Professor in the Humanities at the University of Alabama, Birmingham, in January 2019. I intend to extend that research to include other scientists.

5. Philosophy of Natural and Artificial Intelligence. I've published five papers on Alan Turing and artificial intelligence that draw on both current AI research and on history of science (including history of biology) and have a sixth in progress. This was the other area of contribution specifically cited in my election as an AAAS Fellow in 2016. (<https://www.susangsterrett.com/2016-aaas-fellow.html> ) I expect to continue to contribute to philosophy of current issues in AI, and extend my critical analyses to ethics of AI. I delivered related keynotes at two recent conferences: "Rethinking, Reworking, and Revolutionising The Turing Test" at the University of Edinburgh, Scotland, November 2018; and "Ethics, Computing, and Artificial Intelligence" at Dartmouth College, Hanover, NH, November 2017.

Future plans include an anthology of my works on models, with retrospective essays that reflect on those papers, bring the discussion in them up to date in philosophy of science, and extends that previous work on physical models to ecology. My current sabbatical at the University of Pittsburgh (Fall 2018) is to study the use of models in forest ecology, as a visitor in the lab of Walter P. Carson.

## PAPERS & BOOKS

**Forthcoming Papers** (\* indicates refereed journal article or refereed contribution to anthology)

- \* "Mach on Analogy in Science" in *Interpreting Mach: Critical Essays*, edited by John Preston. forthcoming from Cambridge University Press.
  - \* "Scale Modeling" Chapter 32 of *Routledge Handbook of the Philosophy of Engineering*, edited by Neelke Doorn and Diane Michelfelder, forthcoming. Preprint available at <http://philsci-archive.pitt.edu/16054/>
  - \* "Theory of Dimensions" *Routledge Companion to the Philosophy of Physics*, edited by Alastair Wilson and Eleanor Knox, forthcoming. Preprint available at: <http://philsci-archive.pitt.edu/14093/>
- "The Genius of the Original Imitation Game Test" invited submission to Special Issue of *Minds and Machines*, in progress.

**Publications & Other Archived Papers** (\* indicates refereed journal article or contribution)

- \* Sterrett, S. G. (2019) "How Many Thoughts Can Fit in the Form of a Proposition?" *APA Newsletter on Philosophy and Computers*, Volume 19, No. 1. Fall 2019.
- \* Sterrett, Susan G. (2019) "Relations between units and relations between quantities." Accepted by *Journal for the General Philosophy of Science*, Special Issue (highly refereed) Actually published in the anthology: *The Reform of the International System of Units: Philosophical, Historical and Sociological Perspectives*. edited by Nadine DeCourtenay, Olivier Darrigol, and Oliver Schlaudt, Routledge. Preprint available at: <https://core.ac.uk/download/pdf/157867902.pdf>

Sterrett, S. G. (2019) "Pictures, Models & Measures", adapted & abridged as an invited contribution to the exhibition "Ludwig Wittgenstein: Die Tractatus Odyssee" Ausstellung, a public exhibition in Vienna, Austria from 16 October to 30 November 2018, organized by "The Wittgenstein Initiative." Their website <http://wittgenstein-initiative.com/news/> provides links to the longer journal article, too. The section on my work was also included in the illustrated hardback book that accompanied the exhibition: <http://wittgenstein-initiative.com/ausstellung-die-tractatus-odyssee/>

- \* Sterrett, S. G. (2018) "Pictures, models, and measures." In *Belgrade Philosophical Annual 30/2017*; Special Issue: Wittgenstein In Perspective (full paper; published Open Access online March 2018)
  - \* Sterrett, Susan G. (2017) "Experimentation on Analogue Models." In L. Magnani and T. Bertolotti (eds.), *Springer Handbook of Model-Based Science*, Springer, Switzerland, 2017 Preprint: <http://philsci-archive.pitt.edu/11492/>
  - \* Sterrett, Susan G. (2017) "Physically Similar Systems -- A History of the Concept." In L. Magnani and T. Bertolotti (eds.), *Springer Handbook of Model-Based Science*, Springer, Switzerland, 2017 Preprint: <http://philsci-archive.pitt.edu/11352/>
  - \* Sterrett, S. G. "Turing and the integration of human and machine intelligence." (2017) Juliet Floyd and Alisa Bokulich (Eds.) *Philosophical Explorations of the Legacy of Alan Turing: Turing 100*, *Boston Studies in the Philosophy and History of Science* Springer, Switzerland, 2017. Preprint: <http://philsci-archive.pitt.edu/10316/>
  - \* Sterrett, Susan G. "The morals of model-making" (2014) *Studies in History and Philosophy of Science*, Part A, Volume 46, June 2014, Pages 31-45. (Special issue: Values and Norms in Modeling the Progress of Science) Published open access.
  - \* (Book) *Three Views of Logic: Mathematics, Philosophy, and Computer Science* (co-authored w/ Donald Loveland (Duke Computer Science) and Richard Hodel (Duke Mathematics). (2014) My contribution is Part III of the book: Philosophical Logic. Princeton University Press, January 2014. The book received a positive review in *MAA (Mathematical Association of America) Reviews* and was recommended by *Choice: Current Reviews for Academic Libraries*.
  - \* Sterrett, Susan G. (2013) "Scientific Models in Philosophy of Science" in *HOPOS: The Journal of the International Society for the History of Philosophy of Science*, Volume 3, Issue 2, Page 334-337, Fall 2013. Review of Daniela Bailer-Jones, *Scientific Models in the Philosophy of Science*.
  - \* Sterrett, Susan G. (2012) "Bringing Up Turing's Child-Machine" in *How the World Computes, Springer Lecture Notes in Computer Science*, 2012, Volume 7318/2012, 703 - 713. (preprint: <http://philsci-archive.pitt.edu/9085/> )
  - \* Sterrett, S. G. (2010) "Similarity and Dimensional Analysis" (Invited Handbook Article) *Handbook of the Philosophy of Science, Volume 9: Philosophy of Technology and the Engineering Sciences*, edited by Anthonie Meijers (Series editors: Dov Gabbay, Paul Thagard, and John Woods). pp. 799 – 824. (preprint: <http://philsci-archive.pitt.edu/4474/> )
- Sterrett, S. G. (2009) "Abstracting Matter" <http://philsci-archive.pitt.edu/4836/> (in conference papers for Models and Simulation 3 (Charlottesville, Virginia, March 5 - 7, 2009))
- Sterrett, Susan G (2009) "Historical Context and Philosophy of Science: Reply to Peter Simons' "Coincidence and Kite-Flying", <http://philsci-archive.pitt.edu/4488/>
- \* Sterrett, S. G. (2006) "Models of Machines and Models of Phenomena." *International Studies in the Philosophy of Science* Vol. 20, No. 1, pp. 69-80. preprint: <http://philsci-archive.pitt.edu/2245/>
- (Book) Sterrett, Susan G. (2005) *Wittgenstein Flies a Kite: A Story of Models of Wings and Models of the World* Published November 2005, Pi Press (Penguin). Flyer on book: [https://www.academia.edu/1003211/Wittgenstein\\_flies\\_a\\_kite\\_a\\_story\\_of\\_models\\_of\\_wings\\_and\\_models\\_of\\_the\\_world](https://www.academia.edu/1003211/Wittgenstein_flies_a_kite_a_story_of_models_of_wings_and_models_of_the_world)

- \* Sterrett, S. G. (2005) "Pictures of Sound: Wittgenstein on Gramophone Records and the Logic of Depiction." *Studies in History and Philosophy of Science*, Vol. 36, pp. 351-362.
  
- Sterrett, Susan G. (2005) "Kinds of Models": based on a talk presented at an STS Interdisciplinary roundtable: "The Multiple Meanings of Models", March 20, 2003, John Hope Franklin Center, Duke University <http://philsci-archive.pitt.edu/2363/>
  
- Sterrett, S. G. (2004) "How Many Thoughts Can Fit in the Form of a Proposition?" Placed on Philosophy of Science Archive. <http://philsci-archive.pitt.edu/1816/>
  
- \* Sterrett, S. G. (2002) "Darwin's analogy between artificial and natural selection: how does it go?" *Studies in History and Philosophy of the Biological and Biomedical Sciences*, Vol. 33, pp. 151-168.
  
- \* Sterrett, S. G. (2002) "Physical Models and Fundamental Laws: Using One Piece of the World to Tell About Another" *Mind and Society* 5, 2002, Vol. 3, pp. 51-66. (preprint: <http://philsci-archive.pitt.edu/720/> )
  
- \* Sterrett, S. G. (2002) "Too Many Instincts: Contrasting Philosophical Views on Intelligence in Humans and Non-Humans", *JETAI (Journal of Experimental and Theoretical Artificial Intelligence)*, Vol. 14, No. 1, pp. 39 - 60. Reprinted in *Thinking About Android Epistemology*, Edited by Ken Ford, Clark Glymour and Patrick Hayes, MIT Press (March 2006).
  
- \* Sterrett, S. G. (2002) "Nested Algorithms and 'The Original Imitation Game Test': A Reply to James Moor" *Minds and Machines*, Vol. 12, pp. 131-136.
  
- \* Sterrett, S. G. (2002) "Physical Pictures: Engineering Models circa 1914 and in Wittgenstein's *Tractatus*." *History and Philosophy of Science: New Trends and Perspectives*, ed. by Michael Heidelberger and Friedrich Stadler (Vienna Institute Yearbook 2001/9), Kluwer Academic, 2002. (preprint of longer lecture based on paper, includes timeline: <http://philsci-archive.pitt.edu/661/> )
  
- \* Sterrett, Susan G. (2000) "Turing's Two Tests for Intelligence" *Minds and Machines*, Vol. 10, pp. 541-559. Reprinted in *The Turing Test: The Elusive Standard of Artificial Intelligence*. Edited by James H. Moor. Kluwer Academic, 2003. (preprint: <http://philsci-archive.pitt.edu/8480/>)
  
- Sterrett, Susan G. (1999) "How Beliefs Make a Difference" Ph.D. Dissertation, University of Pittsburgh. Available on Philosophy of Science Archive at <http://philsci-archive.pitt.edu/9372/> (Also available in hard copy and electronic pdf via ProQuest Dissertation Publishing <http://www.proquest.com/en-US/products/dissertations/> )
  
- \* Sterrett, S. G. (1998) "Sounds Like Light: Einstein's Special Theory of Relativity and Mach's Work on Acoustics and Aerodynamics." *Studies in History and Philosophy of Modern Physics*, Vol. 29, 1 - 35.
  
- Sterrett, Susan G. (1994 Talk) "Frege and Hilbert on the Foundations of Geometry" Available on Philosophy of Science Archive at <http://philsci-archive.pitt.edu/723/>
  
- \* Sterrett, S. Martin and Daniel C. Smith (1990) A Comment on "Evaluating and Improving Argument-Centered Works in Marketing." *Journal of Marketing*, Vol. 54, No. 2, pp. 83-88
  
- Putnam, Ralph T., Lesgold, Sharon B., Resnick, Lauren B., and Sterrett, Susan G. (1987) "Understanding Sign Change Transformations." in: Bergeron, Jacques C., Nicolas Herscovics, and Carolyn Kieran, (Eds.) *Proceedings of the International Conference on the Psychology of Mathematics Education (PME)* (11th, Montreal, Canada, July 19 - 25, 1987). V I, pp. 338 - 344.

## **PRESENTATIONS, TALKS, INTERVIEWS**

### **Presentations – Future**

“What do cases of success in increasing diversity of computer science majors actually show?” in Session organized by APA Committee on Philosophy and Computers, 2020 APA Central Division meeting, Palmer House Hilton, Chicago, IL, February 28<sup>th</sup>, 2020. [The session is called “Women in Tech: Things Philosophers Need to Know”]

### **Presentations -- Past**

“Geometric Configuration in Design and in Nature: Is there a connection?” Symposium on History and Philosophy of Science, AAAS-Pacific Division, 2019 Meeting, Southern Oregon University, Ashland, Oregon. June 19<sup>th</sup>, 2019.

“The Constructal Law in Historical Perspective”, Refereed contributed paper, Constructal Law and Second Law Conference, at University of Vale do Rio dos Sinos, Porto Alegre, RS, Brazil, March 11 - 13<sup>th</sup>, 2019. [Paper was accepted; Cancelled trip due to political situation.]

Commentary on "What Caused the Bhopal Disaster?" The Philosophical Importance of Pragmatic Details" by Brian Hanley, in Symposium Session on Environmental Disaster and Pragmatic Details, 2019 Central Division Meeting of the American Philosophical Association, Denver, Colorado, February 20 - 23, 2019.

(Invited) Jemison Visiting Professorship Lecture, University of Alabama, Birmingham. January 11<sup>th</sup>, 2019

"Models and Similarity: A Matter of Psychology or a Matter of Physics?"  
Dept of Philosophy, University of Alabama, Birmingham, January 10, 2019

"The Genius of the Original Imitation Game Test" (Invited Keynote) at the Interdisciplinary conference "Rethinking, Reworking, and Revolutionising the Turing Test." November 15 - 16<sup>th</sup>, 2018, The University of Edinburgh.

"The role of base units in a system of units." Refereed contributed poster to Poster Session November 2, 2018, at PSA 2018, 26<sup>th</sup> Biennial Meeting of the Philosophy of Science Association, November 1 - 4, 2018, in Seattle, Washington.

"Analogous Principles: The Use of Analogy in the work of Charles Darwin, Albert Einstein and Alan Turing" (Invited Keynote) at Workshop (Taller) at UNAM (National Autonomous University of Mexico), Mexico City, Mexico. September 12, 2018.

"The Future of the Constructal Theory in Historical Perspective: Intimations of the 'Unity of Truth'" Franklin Institute Awards Symposium, The Inn at Villanova University, April 18<sup>th</sup>, 2018.

"Scale Models, Invariants, and Similarity" in Symposium: "Scale Models in Engineering." at: 8<sup>th</sup> Models and Simulation Conference (MS8), University of South Carolina, Columbia, SC. March 15<sup>th</sup>-17<sup>th</sup>, 2018

"The Use of Analogy in the Works of Darwin, Einstein, and Turing" [March 2018 Version] College of Charleston, Charleston, SC. March 13, 2018.

"Does it Take a Village to Train a Computer?" at Ethics, Computing, and Artificial Intelligence: A Conference at Dartmouth College Celebrating the work of Professor James Moor, Daniel P. Stone Professor in Intellectual and Moral Philosophy, Hanover, NH. November 14 - 15, 2017.

"Schema, Perception and Memory in Social Interaction" [2017 Version] Department of Philosophy, University of Kansas, Lawrence, KS. September 29, 2017.

"The Use of Analogy in the Works of Darwin, Einstein, and Turing" 8th Quadrennial International Fellows Conference [Summer 2016 Version], July 11th - 13th, 2016, Lund, Sweden.

"Disciplining Little Models" HOPOS (History of Philosophy of Science) 2016. June 23rd - 25th, 2016. University of Minnesota, Minneapolis, MN. <http://hopos2016.umn.edu/welcome>

"Experimentation on Analogue Models" SPSP (Society for the Philosophy of Science in Practice) 2016. June 17th - 19th, 2016 Rowan University, Glassboro, NJ

"Schema, Perception and Memory in Social Interaction" [First Version], IV Colombian Conference on Logic, Epistemology and Philosophy of Science, Bogota, Colombia, February 17 - 19, 2016.

"Pictures, Models, and Measures" (Invited symposium contribution)  
Symposium on "Wittgenstein's 'Picture Theory' ", American Philosophical Association Annual Meeting, Pacific Division, Vancouver, BC Canada, April 1-4, 2015. .

"Logic that fits your Ifs", Department of Mathematics, Wichita State University, Wichita, Kansas, October 10, 2014.

"The use of analogy in the works of Charles Darwin, Albert Einstein, and Alan Turing," Inaugural Lecture, Curtis D. Gridley Distinguished Professor of History and Philosophy of Science, Wichita State University, Wichita, KS. September 26, 2014.

"The Morals of Model-Making", Department of Philosophy, Kansas State University, Manhattan, Kansas, October 18, 2013.

"Models of Intervention", SPSP2013, Fourth Biennial Meeting of the Society for the Philosophy of Science in Practice, Institute for the History and Philosophy of Science and Technology (IHPST), Victoria College, University of Toronto, June 26 -29, 2013.

"Thinkers and their scientific surroundings." College of Arts and Sciences Colloquium Series, Old Dominion University, Humanities Institute and Philosophy Department, Norfolk, Virginia. April 19<sup>th</sup>, 2013. Department of Philosophy, Wichita State University, Wichita, Kansas. March 11<sup>th</sup>, 2013.

"Models of Intervention." Models and Decisions Conference, Munich Center for Mathematical Philosophy, Ludwig Maximilians-Universitat Munchen, Munich, Germany. April 10- 13, 2013.

(Invited; cancelled) "Moral Perception and Moral Modeling: Evaluating Geoengineering Schemes for Fixing Climate Change", Group Meeting of the American Association for the Philosophic Study of Society (at Eastern APA Meeting, December 28, 2012 in Atlanta, GA).

"Experimentation on Analogues", PSX3 (Philosophy of Scientific Experimentation III), Department of Physics, University of Boulder Campus, Boulder, Colorado. October 5 - 6, 2012.  
Slides available at: [https://www.academia.edu/8409726/\\_Experimentation\\_on\\_Analogues\\_2012\\_Talk\\_at\\_PSX3\\_Boulder\\_CO\\_](https://www.academia.edu/8409726/_Experimentation_on_Analogues_2012_Talk_at_PSX3_Boulder_CO_)

(Invited Keynote) "The Morals of Model-making" *Values and Norms in Modeling* (VaNiM 2012) Conference, Eindhoven University of Technology, in cooperation w/ Delft University of Technology, Eindhoven, The Netherlands. June 25 - 27, 2012

(Invited) "Bringing Up Turing's 'Child-Machine'", for session "The Turing Test and Thinking Machines", Turing Centenary Conference: CiE 2012 -- How the World Computes University of Cambridge, Cambridge, England. June 18th - 23rd, 2012

(Invited) "Geometric Configuration in Nature and in Design: Is there a connection?" with Adrian Bejan, (Pratt College of Engineering, Duke University), 4th Congress on Logic, Methodology and Philosophy of Science, Nancy, France. July 19 - 26, 2011

"How is theory employed in modeling? There are many ways"  
Conference: Epistemology of Modeling and Simulation, University Club, University of Pittsburgh, Pittsburgh PA. April 1 - 3, 2011

(Invited) "The Art of Interdisciplinary Science: Found Art, Outsider Art, or Something Else?"  
Symposium: "Interdisciplinary Exchanges as the Object of Philosophical Inquiry"  
Helsinki, Finland. March 3 - 4, 2011

(Invited) Presented Work in Session: Structuralism, Objects, and Properties  
"Structuralism in the Philosophy of Science" Workshop  
Department of Philosophy, University of Notre Dame, Notre Dame, Indiana  
November 18 - 20, 2010

(Invited) "What's a scale model?"  
Third Regional Wittgenstein Workshop, Floyd, Virginia September 24 - 26, 2010

(Invited) "Similarity and Induction"  
Center for Philosophy of Science Lunchtime Talk Series  
University of Pittsburgh, Pittsburgh, Pennsylvania January 26, 2010

(Invited) Dies Natalis 2010 Keynote Lecture  
University of Delft, Delft, Netherlands  
January 8th, 2010 (video online; my lecture begins at around 39:30 & lasts about 25 mins.)

"Abstracting Matter"  
Models and Simulation 3 Conference  
University of Virginia, Charlottesville, VA March 6-8th, 2009

(Invited) "Could There Be A General Theory of Similarity?"  
36th Annual Philosophy of Science Conference  
(2009 conference themes: Philosophy of Physics, Metaphysics in Science, Simulation)  
Inter-University Centre (IUC) Dubrovnik, Croatia April 13-18th, 2009

(Invited) "Nuclear Energy and Environmental Ethics: What Is the Question?"  
North Carolina State University, Raleigh, NC Thursday, February 19, 2009

(Invited) "What is the concept of a rule in the Tractatus?"  
2nd Regional Working Conference on Wittgenstein,  
Virginia Military Institute, Lexington, Virginia September 12-14, 2008



(Invited) "Wittgenstein and Aeronautics" (title chosen by conference organizer), Regional Working Conference on Wittgenstein, Virginia Tech Philosophy Department Spring Conference 2007. Virginia Polytechnic and State University, Blacksburg, Virginia April 13, 2007

"Symbols, Models and Facts: Biographical Clues to Wittgenstein's Talk About Picturing" John Hope Franklin Center for Interdisciplinary and International Studies, Duke University. Wednesdays at the Center Series, January 24, 2007 Available on itunes via Duke University.

(Invited) "What Makes Good Models Good?" Presented at "Models and Prediction in Science, Science Studies & Public Policy: A Research Workshop" University of California, San Diego. May 26 - 28, 2006.

"Analogous Principles: Some Historical Case Studies" - Presented at conference "Philosophical Perspectives on Scientific Understanding", The Free University, Amsterdam, Netherlands, August 27, 2005.

"Models of Machines and Models of Phenomena" Invited contribution, Workshop on "Applying Science" at PSA 2004, Philosophy of Science Biennial Meeting, Austin, Texas, November 18, 2004.

"The Proper Uses of Proportion: Understanding Galileo's Advance over the Pythagoreans" 12th UK Conference on Foundations of Physics, University of Leeds, September 2-5, 2003.

"The Science of the Similar: How to Get Things Out of Proportion" 12th Conference on Logic, Methodology, and Philosophy of Science. Oviedo, Spain, August 7-14, 2003.

"Kinds of Models" Contribution to a panel discussion: STS Interdisciplinary Roundtable: "The Multiple Meanings of Models", John Hope Franklin Center, Duke University, Durham NC, March 20, 2003. (text of talk is available at <http://philsci-archive.pitt.edu/2363/> .)

"Intelligent Behavior, Habitual Response, or Programmed Movement? Turing, James, and Descartes on Intelligence in Animals and Machines" NC State Philosophy Club, Raleigh, NC, April 24th, 2002.

"Too Many Instincts: Contrasting Views on Intelligence in Humans and Non-Humans" NCPS/SCPS Meeting, at The College of Charleston, Charleston SC, February 9th, 2002.

"Physical Models and Fundamental Laws: Using One Piece of the World to Tell About Another" presented at MBR'01 (Conference on Model Based Reasoning 2001), May 15-17, 2001, Pavia, Italy. (Longer versions also presented at Carnegie-Mellon University, Duke University, Pitzer College, and Simon Fraser University in 2000.)

"Darwin's analogy between artificial and natural selection: how does it go?" Lunchtime talk series, Center for Philosophy of Science, University of Pittsburgh, March 2001.

"Physical Pictures: Engineering Models circa 1914 and in Wittgenstein's *Tractatus* (long UNC version)" UNC-Chapel Hill Philosophy Department Colloquium, November 2000.

"Physical Pictures: Engineering Models circa 1914 and in Wittgenstein's *Tractatus*." Talk presented at HOPOS2000 (History of Philosophy of Science 2000), University of Vienna, Vienna, Austria, July 6-9, 2000.

"Turing's Two Tests for Intelligence" Computing and Philosophy Conference (CAP '99), Carnegie Mellon University, Pittsburgh, PA, August 5-7, 1999. Also presented at Occidental College in 2000.

"Sounds Like Light: Einstein's Special Theory of Relativity and Mach's Work on Acoustics and Aerodynamics." Lunchtime talk series, Center for Philosophy of Science, University of Pittsburgh, March 1997.

"Frege and Hilbert on the Foundations of Geometry (1994 Talk)." Talk presented at the University of Pittsburgh Graduate Student Colloquium. available on Philosophy of Science Archive at <http://philsci-archive.pitt.edu/723/>

### **Other participation in workshops and conferences**

Commentator (invited), Kansas Philosophical Society, Kansas State University, Manhattan, Kansas, February 2015.

Participant (refereed submission) Pittsburgh Area Philosophy Conference 4, Washington & Jefferson University, Analytic Working Group II, September 2012

Invited Participant, "Wittgenstein and the Philosophy of Mind" University of California, Santa Cruz, California June 2007

Invited Participant, "Models, Methods, and Evidence: Topics in the Philosophy of Science", 38th Oberlin Colloquium in Philosophy, April 4-6, 2008

### **Interview**

"Kites, Models and Logic: Susan Sterrett Investigates Models in Wittgenstein's World" Interview on SimplyCharly.com *Text of interview available at:* [https://www.academia.edu/4992195/Interview\\_c\\_2008\\_2009\\_about\\_Wittgenstein\\_Flies\\_A\\_Kite\\_A\\_Story\\_of\\_Models\\_of\\_Wings\\_and\\_Models\\_of\\_the\\_World\\_](https://www.academia.edu/4992195/Interview_c_2008_2009_about_Wittgenstein_Flies_A_Kite_A_Story_of_Models_of_Wings_and_Models_of_the_World_)

### **FELLOWSHIPS & GRANTS**

#### **Received as university faculty member:**

Faculty Fellow, NEH Summer Institute - "Mapping Nature Across the Americas" Newberry Library, Chicago, Illinois Summer 2014 (5 weeks)  
Institute Conveners: Jim Akerman (Newberry Library) and Kathleen Brosnan (U of Oklahoma)

Visiting Fellow, Center for Philosophy of Science, Spring 2010 term  
University of Pittsburgh, Pittsburgh, Pennsylvania

Arts and Sciences Committee on Faculty Research (ASCFR) 2008-2009 Competition Research Award (from Duke University)

Selected as one of 12 American University Professors for Nuclear Tour of France "ANS French Section Tour of French Nuclear Facilities" July 6-12, 2008

Faculty Fellowship, John Hope Franklin Seminar, 2007-2008 Academic year

Woodrow Wilson National Fellowship Foundation Career Enhancement Fellowship  
June 2003 - June 2004

Arts and Sciences Council on Faculty Research (Duke University) -- Travel Grants  
(to present papers at conferences: Pavia, Italy (2001); Leeds, UK (2003); Oviedo, Spain (2004);  
Amsterdam, Netherlands (2005), Dubrovnik, Croatia (2009), Charlottesville, VA and as invited  
participation in conferences in Santa Cruz, California (2007) and Oberlin, Ohio (2008))

**Received as graduate student:**

Teaching Fellowship,  
Department of Philosophy, University of Pittsburgh 1998 - 1999

Mellon Doctoral Fellowship 1990 - 1991

Teaching Fellowships,  
Department of Philosophy, University of Pittsburgh 1987 - 1988; 1988 - 1989; 1989 - 1990

Research Fellowship,  
Learning Research and Development Center 1986 - 1987

Teaching Fellowships, Department of Mathematics 1984 - 1985; 1985 - 1986

**Received as Undergraduate student:**

Yale Summer Research Program  
for Undergraduates in Science and Engineering Summer 1977

Eastman Kodak Undergraduate Scholarship  
for Students in Engineering 1976 - 1977

**REFEREEING & REVIEWING**

Journals: *British Journal for the History of Philosophy*  
*British Journal for the Philosophy of Science*  
*European Journal for the Philosophy of Science*  
*Journal of the History of Ideas*  
*Journal for the General Philosophy of Science*  
*Minds and Machines*  
*Nous*  
*Philosophers' Imprint*  
*Philosophical Quarterly*  
*Philosophy of Science*  
*Science & Education*  
*Synthese*

Publishers: Cambridge University Press (Book Manuscript),  
Oxford University Press (Book Manuscript)  
Continuum Press (Book Manuscript).  
Hackett Publishing (Book Proposal).  
Routledge (Book Proposals)  
Simply Charly (Book Manuscript)

## **OTHER REFEREEING**

I have also accepted requests to serve as an external reviewer on tenure cases, and as an external member of dissertation committees at other universities. At Wichita State University, I have served on master's thesis committees for candidates in Mathematics and in Biology.

## **MEMBERSHIP - PROFESSIONAL SOCIETIES**

American Association for the Advancement of Science (Elected Fellow of AAAS in 2016)  
Association for Computing Machinery  
American Geophysical Union  
American Nuclear Society  
American Philosophical Association  
American Society for Environmental History  
Ecological Society of America  
History of Science Society  
International Society for the History of Philosophy of Science  
Philosophy of Science Association  
Society for the Philosophy of Science in Practice  
Sigma Xi (Full Member)