# Sylvia Nickerson B.F.A., B.A., M.A., Ph.D.

#### October 2022

### Academic Employment

2022-2023	Assistant Professor, Teaching Stream, Institute for History and Philosophy of
	Science and Technology (IHPST), University of Toronto
2020-2023	Instructor, Department of Mathematics & Statistics, McMaster University
2022	Instructor, Bachelor of Health Sciences program, McMaster University
2019-2022	Instructor, Institute for History and Philosophy of Science and Technology
	(IHPST), University of Toronto
2021	Instructor, School of Interdisciplinary Science, McMaster University
2014-2017	Postdoctoral Fellow, York University, Research teams Science and Religion:
	Exploring the Spectrum and John Tyndall Correspondence Project

### Education

2006-2014	Ph.D. History of Science, University of Toronto (includes 2 yrs. leave)
2005-2006	M.A. History of Science, University of Toronto
2004-2005	Qualifying year to the M.Sc. in Mathematics, Dalhousie University
2002-2003	B.A. Mathematics (with distinction), Mount Allison University
1997-2001	B.F.A. Visual Art (with distinction), Mount Allison University
1997	O.S.S.D. Visual Art, Etobicoke School of the Arts

# **Research Articles**

- (forthcoming 2022) "Marrying the radical, the conventional, and the mystical: Mathematics, gender and religion in the lives of William Kingdon and Lucy Lane Clifford," special issue of *Endeavour* on Calculating Couples: Domesticity and Gender in the Making of Mathematical Careers, edited by David E. Dunning and Brigitte Stenhouse.
- (2015) "Mathematics for the World: Publishing Mathematics and the International Book Trade, Macmillan and Co.," chapter nine in *Research in History and Philosophy of Mathematics*, Proceedings of the Canadian Society for History and Philosophy of Mathematics, Maria Zack and Elaine Landry (eds), New York: Birkhäuser, p. 121-137.
- (2013) "Referees, Publisher's Readers and the Image of Mathematics in Nineteenth Century England," winner of the Peter Isaac Essay Prize, *Publishing History* 71: 27-67.
- (2013) "Taking a Stand: Exploring the role of the scientist prior to the first Pugwash Conference on Science and World Affairs, 1957," *Scientia Canadensis* 36: 63-87.
- (2008) "Russell, Clifford, Whitehead and Differential Geometry," with Nicholas Griffin, *Russell: The Journal of Bertrand Russell Studies* n.s. 28: 20-38.

#### **Book Chapters**

- (2020) with Bernard Lightman and Parandis Tajbakhsh, "From Conflict to Complexity: Historians and Nineteenth Century Public Perceptions of Science and Religion," in *Identity in a Secular Age: Science, Religion and Public Perceptions*, ed. Fern Elsdon-Baker and Bernard Lightman, University of Pittsburgh Press, pp. 13-29.
- (2019) "Darwin's Publisher: John Murray III at the intersection of science and religion," in *Rethinking History, Science and Religion: An Exploration of Conflict and the Complexity Principle*, ed. Bernard Lightman, University of Pittsburgh Press, pp. 110-128.

#### Reports

- (2021) "Report on CSHPM at CMS winter meeting," *Canadian Society for the History and Philosophy of Mathematics Bulletin* 68 (May): 14-15.
- (2021) "Report on the British Society for the History of Mathematics meeting", *Canadian* Society for the History and Philosophy of Mathematics Bulletin 68 (May): 15-17.
- (2018) "Graphic Medicine: An introduction," *Canadian Medical Association Journal* (March 26, 2018) 190 (12): E368-E369.
- (2016) "What objects reveal about mathematical culture," *Notes of the Canadian Mathematical Society* 48 (no. 4): 18-19.
- (2016) "Report on the Canadian Mathematical Society's 2015 Winter Meeting," *Canadian* Society for the History and Philosophy of Mathematics Bulletin 58 (May): 16-17.
- (2016) "About the Tyndall Project," written by Nickerson, visuals co-created with Cameron Murray, <u>https://www.youtube.com/watch?v=2lQpEsDC06A</u> [now removed]

#### **Book Reviews**

- (2013) Review of Elaine McKinnon Riehm and Frances Hoffman, *Turbulent Times in Mathematics: The life and times of J.C. Fields and the history of the Fields Medal* in: *Historia Mathematica* 40 (3): 325-329.
- (2010) Review of Timothy J. Madigan, W. K. Clifford and The Ethics of Belief in: Russell: The Journal of Bertrand Russell Studies 29: 188-190.
- (2009) Review of Apostolos Doxiadis and Christos Papadimitrou, *Logicomix* in: *Russell: The Journal of Bertrand Russell Studies* 29: 67-74.

#### Other Publications

- (forthcoming 2022) "Q&A with Dr. Jacqueline Feke," *Canadian Society for the History and Philosophy of Mathematics Bulletin* 71 (November).
- (2022) "Q&A with Dr. Sarah Symons," *Canadian Society for the History and Philosophy of Mathematics Bulletin* 70 (May): 15-18.
- (2021) "Q&A with Siobhan Roberts," *Canadian Society for the History and Philosophy of Mathematics Bulletin* 68 (May): 7-10.
- (2020) "A cartoon from the editor's desk," *Canadian Society for the History and Philosophy of Mathematics Bulletin* 67 (November): 14-15.

- (2018) "Seeking graphic medicine narratives," *Canadian Medical Association Journal* [26 March] 190 (12): E368-9.
- (2017) "Spiritualism, religion and mathematics in the Victorian period," *Science and Religion: Exploring the Spectrum* blog, <u>https://sciencereligionspectrum.org/blog-posts/victorian-spiritualism-math/</u>
- (2016) "Radicalism and Science at the Publisher John Chapman," *Science and Religion: Exploring the Spectrum* blog, <u>https://sciencereligionspectrum.org/blog-posts/the-most-pestilential-book-ever-vomited-from-the-jaws-of-hell/</u>
- (2015) "Interview with Nicholas Griffin: Bertrand Russell on science and religion," *Bertrand Russell Society Bulletin* 152: 23-29.
- (2015) "Why I am not a Christian: Bertrand Russell on science and religion," Science and Religion: Exploring the Spectrum blog, <u>http://sciencereligionspectrum.org/blog-</u> posts/why-i-am-not-a-christian-bertrand-russell-on-science-and-religion/#more-437

### Research Articles (unpublished manuscripts)

- (2017) "Destructing ignorance and reducing the world into order, beauty and harmony: Alexander Macmillan, evolutionists and the image of modern science"
- (2019) "Democracy without Christianity is catastrophe: John Murray, Charles Darwin and binding the future to the past"
- (2013) "Printing mathematics using moveable type printing and wood engraving techniques" (*Annals of Science* Decision on Manuscript ID TASC-2012-0085)

# Teaching

(2023) Instructor, VIC259H Math and Creativity, Victoria College, University of Toronto (2023) Instructor, MATH3Z03 Inquiry: History of Mathematics, McMaster University (2023) Instructor, HPS391 History of Mathematics after 1700, University of Toronto (2022) Instructor, HPS390 The Story of Number: Math up to 1700, University of Toronto (2022) Instructor, HTHSCI 3KK3, Seeing and Understanding Data, McMaster University (2022) Instructor, HPS391 History of Mathematics after 1700, University of Toronto (2021) Instructor, SCICOMM 2A03, Foundations in Science Communication, McMaster (2021) Instructor, HPS390 The Story of Number: Math up to 1700, University of Toronto (2021) Instructor, MATH3Z03 Inquiry: History of Mathematics, McMaster University (2021) Instructor, HPS391 History of Mathematics after 1700, University of Toronto (2020) Instructor, MATH3Z03 Inquiry: History of Mathematics, McMaster University (2020) Instructor, HPS391 History of Mathematics after 1700, University of Toronto (2019) Instructor, HPS391 History of Mathematics after 1700, University of Toronto (2011) Instructor, HPS211 Scientific Revolutions II, University of Toronto (2011) Instructor, Writing Clinic, University of Toronto (2006-2013) Teaching Assistant, Scientific Revolutions I & II, University of Toronto (2006) Teaching Assistant, Introduction to History of Mathematics, University of Toronto (1999-2001) Teaching Assistant, Calculus, Mount Allison University

### **Research Funding**

- (2023) Innovation Fund, Canada Council for the Arts (CAD 21,000, pending approval)
- (2022) Arts Abroad Program, Canada Council for the Arts (CAD 2,100)
- (2021) Research and Creation, Canada Council for the Arts (CAD 17,000)
- (2017) Writers' Works in Progress Grant, Ontario Arts Council (CAD 10,000)
- (2016) Creation and Presentation Grant, City of Hamilton Enrichment Fund (CAN 7,560)

### Awards and Fellowships

- (2020) Doug Wright Award winner, for graphic novel, Creation
- (2019) Doug Wright Award nomination, for graphic novel, All We Have Left, Is This
- (2018) Hamilton Arts Award, Visual Arts
- (2018) Doug Wright Award nomination, for graphic novel, Creation: The first three chapters
- (2015) Best Student Paper Award, Canadian Society for the History and Philosophy of Mathematics (CAD 800 value)
- (2013) Peter Isaac Essay Prize, Print Networks committee (£400 value)
- (2012) Honourable mention, Annals of Science Prize
- (2012-2013) Doctoral Completion Award, University of Toronto (CAD 6,000)
- (2011) Michael Smith Foreign Study Supplement, Social Sciences and Humanities Research Council of Canada (CAD 6,000)
- (2011-2012) Doctoral Fellowship, IHPST, University of Toronto (CAD 10,750)
- (2009, 2011, 2013-14) Travel Grant, IHPST, University of Toronto (CAD 3,900)
- (2006-2011) Canada Graduate Scholarship, Social Sciences and Humanities Research Council of Canada (CAD 105,000)
- (2006) Frederic Hudd Bursary, Massey College (CAD 1000)
- (2006) Ontario Graduate Scholarship (CAD 10,000, declined)
- (2005-2008) Resident Junior Fellow, Massey College
- (2005) Frederic Hudd Scholarship, Massey College (CAD 1500)
- (2005) Ontario Graduate Scholarship (CAD 15,000)
- (2001) Crake Performance Award in Fine Arts, Mount Allison University
- (2001) University Leadership Certificate, Mount Allison University
- (2000) Crake Undergraduate Fellowship, Mount Allison University (CAD 5500)

# **Editorial Projects**

- (2020-present) Editor, *Canadian Society for History and Philosophy of Mathematics Bulletin* Responsible for writing articles, collecting and assembling member and society news, editorials and event listings pertaining to history of mathematics for this biannual publication.
- (2014-2017) Editorial Assistant, <u>*The Correspondence of John Tyndall*</u> (U. of Pittsburgh Press) Among the 7000 letters published in this multi-volume, multi-year, editorial project, I edited more than 400. Attending bi-weekly editorial team meetings, I helped shape the project's digital strategy, managed research assistants, wrote scripts about the Tyndall project and edited images for vols. 2-5.

### **Conference** Papers

- (2023) W.K. Clifford's Evolutionary Approach to Mathematics and his Posthumous Reputation (invited), Special Sessions on the History of Mathematics, Joint Mathematics Meetings of the American Mathematical Society and Mathematical Association of America, Boston
- (2022) *Calculating Couples: W.K. and Lucy Clifford* (invited), School of Mathematics and Statistics, The Open University, Milton Keynes, UK.
- (2017) A Seat at the Table: Publishers, Periodicals, and the Agendas of Science and Religion, History of Science Society, Toronto
- (2017) Darwin's Publisher: John Murray III at the Intersection of Science and Religion, International Congress of History of Science and Technology, Rio de Janeiro
- (2016) *Mathematics, Spirituality and Religion in the Victorian Period*, History and Philosophy of Mathematics session, Canadian Mathematical Society, Niagara Falls
- (2016) Darwin in the Public Sphere: Evolutionary narratives and Macmillan publications, 1859-1890, Public Perceptions of Science and Religion, University of California, San Diego
- (2016) British Publishers as Agents within Evolution and Religion Debates, 1860-1890, British-North American Joint Meeting of the British Society for the History of Science, Canadian Society for the History and Philosophy of Science and History of Science Society, Edmonton, Alberta
- (2015) *The John Tyndall Correspondence Project*, History and Philosophy of Mathematics session, Canadian Mathematical Society, Montreal
- (2015) Darwin in the Public Sphere: Evolutionary narratives and Macmillan publications, 1859-1890 (invited), Victorian Studies Network Annual Symposium, York University and Society for the History of Authorship, Reading and Publishing, Longueuil and Montreal
- (2015) Generating the mathematical book in Canada: Mathematical printing at the University of Toronto Press, Canadian Science and Technology Historical Association, Toronto
- (2015) *Referees vs. publisher's readers as decision makers in mathematics and science* (invited), Publish or Perish? Scientific periodicals from 1665 to the present, The Royal Society, London
- (2015) *Science, Religion and Conflict: Thoughts on Historiography*, STS Workshop, Science and Technology Studies Department, York University
- (2014) Publishing Britain's scientific sphere: Macmillan and Co. as publishers of science, 1860-1890, History of Science Society, Chicago and Canadian Society for the History and Philosophy of Science, Brock University
- (2014) Mathematics for the World: Publishing mathematics and the international book trade, the case of Macmillan and Co., Canadian Society for the History and Philosophy of Mathematics, Brock University, 2014; and Joint Mathematics Meetings of the American Mathematical Society and Mathematical Association of America, Baltimore
- (2013) *Les livres de mathématique dans l'Inventaire des imprimés anciens au Québec* (invited by Frédéric Charbonneau), McGill University Rare Books and Special Collections
- (2013) Enabling a Mathematical Culture in Canada: The development of mathematical printing at the University of Toronto Press, Canadian Association for the Study of Book Culture,

University of Victoria

- (2013) Sir Donald MacAlister as Publisher's Reader for Macmillan and Co., What is a Scientific Author? Cultures of Scientific Publishing Symposium, Department of the History of Science, Harvard University
- (2012) *Mathematics and the Book Trade in English Canada, 1850-1925*, History and Philosophy of Mathematics session, Canadian Mathematical Society, Montreal
- (2011) *Printing Mathematics using Moveable Type and Engraving*, History and Philosophy of Mathematics session, Canadian Mathematical Society, Toronto
- (2011) Bringing Math to Market: Macmillan and Co. as publishers of mathematics, 1850-1900 (invited), Center for the History of the Mathematical Sciences, Open University
- (2007) Taking a Stand: Exploring the role of the scientist prior to the Pugwash Conference on Science and World Affairs, Canadian Science and Technology Historical Association, Toronto
- (2007) Bertrand Russell's An Essay on the Foundations of Geometry (1897), Brown bag presentation, Institute for the History and Philosophy of Science and Technology, Toronto

### Community Presentations & Research Publicity

- (2022) "Visualizations in and of Science," History & Philosophy of Science Undergraduate Society, University of Toronto
- (2021) "The Missing Pages 02: History of Mathematics in the Middle East, South Asia and East Asia," SciXchange, Ryerson University at the link <u>https://youtu.be/vsYwh5pqXjc</u>
- (2020) "Darwin's publisher didn't believe in evolution, but sold his revolutionary book anyway" by Dan Falk, *Smithsonian Magazine*, 12 February 2020, <u>https://www.smithsonianmag.com/science-nature/how-darwins-publisher-changed-worlddespite-his-own-objections-180974189/</u>
- (2018) "Encounters A new parent turns to graphic medicine to help sort her thoughts," *Canadian Medical Association Journal podcasts* (April) at the link <u>https://soundcloud.com/cmajpodcasts/171318-enc</u>
- (2012) Fusing Art with Science and Stories of Women in Scientific History (invited), lecture accompanying performance of John Mighton's play The Little Years, Tarragon Theatre, Toronto

# Juries

(2021) Best Book of Canadian Comic Arts, Doug Wright Awards

### Professional Development

- (2022) Relationships, Collaboration and Partnerships, LLC, University of Toronto
- (2022) Preparing Your Teaching Dossier, CTSI, University of Toronto
- (2022) TLS2022: Designing for the Future, CTSI, University of Toronto
- (2021) Course (re)Design Workshop, MacPherson Institute, McMaster University
- (2020) Hybrid vs. Online Instruction, A&S Online Learning Academy, University of Toronto
- (2020) PeerScholar: A Tool to Support Qualitative Assignments, CTSI, University of Toronto

(2020) Connecting and Interacting with Your Students Online, CTSI, University of Toronto

- (2020 Assessing Student Work, Providing Feedback through Quercus, CTSI, University of Toronto
- (2020) Site testing for pedagogical materials/assignments for TRIUMPHS (<u>Transforming</u> <u>Instruction in Undergraduate Mathematics via Primary Historical Sources</u>)
- (2020) What is Harassment? Tools to Identify & Address Racial and Sexual Harassment at Work, Centre for Leadership, Learning & Culture (LLC), University of Toronto
- (2019) *Instructor Summer School and Syllabus Clinic*, Centre for Teaching Support and Innovation (CTSI), University of Toronto
- (2019) Course completion, *The99AIChallenge*, University of Toronto
- (2017) Participant, *Science in the 19<sup>th</sup> Century Periodical Workshop* directed by Sally Shuttleworth and Geoffrey Cantor, York University
- (2015) Commentary on "A dash of genius: Benjamin Lee Whorf and the promise of linguistics" by Jeffrey Wajsberg, STS Workshop, York University.
- (2004) Artist participant, Creative Practice: Students from Dalhousie University's Faculty of Medicine collaborate with students from Mount Allison University's Department of Fine Arts, Halifax, Nova Scotia and Sackville, New Brunswick.

#### Research in Teaching & Learning Practice

- (Applied for 2023) Nurturing Mathematical Discourse by Teaching with Primary Sources Fellowship
- (2023) Animation for improved learning and engagement, with Hakob Barseghyan, A&S Teaching & learning Community of Practice, University of Toronto

#### Administrative Responsibilities

(2022-2023) Member, Joint Graduate Department Academic Appeals Committee, University of Toronto

#### Professional Service

- (begin 2023) Treasurer, International Commission on the History of Mathematics
- (2020-present) Content editor, Bulletin of the Canadian Society for the History and Philosophy of Mathematics
- (2021) Referee for Convergence, publication of the Mathematical Association of America
- (2020) Expert reviewer, Network for Study of Science & Belief in Society
- (2020-2021) Chief Steward Unit 2 (Sessional Instructors) CUPE 3906, McMaster
- (2019-2021) Department Steward, Unit 3 (Sessional Instructors) CUPE 3902, Toronto
- (2018-2019) Referee for Canadian Medical Association Journal, medical humanities section
- (2017) Donated art for 50<sup>th</sup> anniversary celebrations, *Institute for History and Philosophy of Science and Technology*, University of Toronto
- (2013) Referee for Book History, Johns Hopkins University Press
- (2014) Logo and visual branding for *Science and Religion, Exploring the Spectrum* project and *Center for Science, Knowledge and Belief in Society* at Newman University
- (2014) Referee for Mémoires du livre/Studies in Book Culture, Université de Sherbrooke

(2012) Advisor for *Spontaneous Generations: A Journal for the History and Philosophy of Science,* University of Toronto

## Other Professional Experience

(2005-2008) Print shop assistant, Robertson Davies Library, Massey College (2003-2005) Project Manager, Atlantic Publishers Marketing Association (2001-2002) Production Manager/Graphic Designer, Mosaic Press

### Creative Works

Sylvia has published visual images in magazines, newspapers and books in Canada, the US and UK for clients including *The Globe and Mail, The National Post, The Washington Post, Rogers Media, The Boston Globe, Palgrave Macmillan* and *Cambridge University Press.* She won the Hamilton Arts Award in Visual Arts in 2018. Her graphic novel *Creation* was published by Drawn and Quarterly in 2019 to acclaim and she won the Doug Wright Award for best emerging talent in 2020. *Creation: The first three chapters* was nominated for a Doug Wright Award for excellence in Canadian cartooning in 2018, and her self-published book *All We Have Left, Is This* was nominated for a Doug Wright Award in 2019.

Her artistic work can be explored at http://www.sylvianickerson.ca