

# Nicolas Fillion

## Curriculum Vitae

✉ Simon Fraser University  
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### AREAS OF SPECIALIZATION

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Philosophy of Mathematics, Philosophy of Science, Logic & Formal Semantics, Scientific Computing

### AREAS OF COMPETENCE

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Decision and Game Theory, Early Analytic Philosophy, Philosophy of Physics, Epistemology, Ethics

### EDUCATION

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<b>PhD</b> Philosophy, University of Western Ontario	2012
<b>MSc</b> Applied Mathematics, University of Western Ontario	2011
<b>BA</b> Mathematical Sciences, University of Illinois Springfield	2009
<b>MA</b> Philosophy, Université Laval	2006
<b>Certificate</b> Russian Studies, Université Laval and Russian State University for the Humanities	2006
<b>BA</b> Philosophy, Université Laval	2003
<b>DEC</b> Natural Sciences, Collège Mérici	2000

### PROFESSIONAL APPOINTMENTS

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<b>Assistant Professor</b> Simon Fraser University, Department of Philosophy	2015–current
<b>Limited-Term Assistant Professor</b> Simon Fraser University, Department of Philosophy	2013–2015
<b>Postdoc</b> The University of Western Ontario, Department of Statistics & Actuarial Sciences	2012–2013
<b>Research Scholar</b> The University of Pittsburgh, Department of Philosophy	2011

### AWARDS AND DISTINCTIONS

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1. Foundational Questions Institute (FQXi) 2015 Essay Prize “Trick or Truth: the Mysterious Connection Between Physics and Mathematics”: 4<sup>th</sup> prize out of more than 200 submissions from 46 countries for my essay “Demystifying the Applicability of Mathematics.”
2. Notable Book 2013 list of the *ACM Computing Reviews* for the book *A Graduate Introduction to Numerical Methods* in the category “Mathematics of Computing.”
3. University Teaching Honour Roll Certificate of Excellence 2011-2012, from the University of Western Ontario Students’ Council.
4. Excellence Scholarship of Collège Mérici for the 4<sup>th</sup> place in the 1998 competition in chemistry/biology.

**Books**

1. Fillion, N., Corless, R.M., and Kotsireas, I. (Eds) (forthcoming). *Algorithms and complexity in mathematics, epistemology, and science*, Fields Institute Communications, Springer.
2. Corless, R.M. and Fillion, N. (2013). *A graduate introduction to numerical methods, from the viewpoint of backward error analysis*, Springer: New York, 868 pp.  
Reviewed by: A. Townsend, *SIAM Review*, Vol. 58, Iss. 4, 2016; N. Higham, Blog entry, 2015; J.S.C. Prentice, *Mathematical Reviews*, January 2015; R. Plato, *zbMATH*, Vol. 1295, 2014.

**Refereed Journal Articles**

1. Fillion, N. (Accepted with minor modifications) “Conceptual and computational mathematics,” *Philosophia Mathematica*.
2. Fillion, N. (2018) “Clinical equipoise and adaptive clinical trials,” *Topoi* (Special issue: Foundations of Clinical Reasoning).
3. Fillion, N. and Moir, R (2018). “Explanation and abstraction from a backward-error analytic perspective,” *European Journal for the Philosophy of Science*, 8(3), pp. 735-759.
4. Fillion, N. and Bangu, S. (2015). “Numerical methods, complexity, and epistemic hierarchies,” *Philosophy of Science*, 82: 941-955.
5. Bellhouse, D.R. and Fillion, N. (2015). “Le Her and other problems in probability discussed by Bernoulli, Montmort and Waldegrave,” *Statistical Science*, 30(1): 26-39.
6. Fillion, N. and Corless, R.M (2014). “On the epistemological analysis of modeling and computational error in the mathematical sciences,” *Synthese*, 191: 1451-1467.

**Refereed Book Chapters**

1. Fillion N (2017). “Vindicating Computer Simulations in Practice,” in: J. Lenhard (Ed), *Mathematics as a Tool*, Boston Studies in the History and Philosophy of Science, Springer, pp. 137-156.
2. Fillion N (2016). “Demystifying the Applicability of Mathematics,” in: A. Aguirre, B. Foster & Z. Merali (Eds), *Trick or Truth: the Mysterious Connection Between Physics and Mathematics?* (Essay-Winning Awards of the Foundational Questions Institute 2015), Springer, pp. 135-144.

**Refereed Proceedings Articles** (Entire paper refereed)

1. Corless, R.M. and Fillion, N (forthcoming). “Backward Error Analysis for Perturbation Methods,” in *Algorithms and Complexity in Mathematics, Epistemology, and Science*, Springer.
2. Fillion, N. (2015). “The 18th-century origins of the concept of mixed-strategy equilibrium in game theory,” in: M. Zack & E. Landry (Eds.), *Research in History and Philosophy of Mathematics*, Springer, pp. 63-78.
3. Fillion, N. (2008). “The Kolmogorov-Gödel Translation of Classical Arithmetic into Intuitionistic Arithmetic,” in: A. Cupillari (Ed.), *Proceedings of the Canadian Society for History and Philosophy of Mathematics*: pp. 77-88.

**Technical Reports**

1. Fillion, N. and Martelli, D. (2017). “Overview of Critical Thinking in the BC K-12 Curriculum Revisions: Implications for Post-Secondary Teaching and Learning,” Commissioned by the Faculty of Arts and Social Science and the Faculty of Education at Simon Fraser University, 31 pp.
2. Fillion, N. (2017). “Creating a pathway to a teaching career for philosophy graduates: An opportunity to deepen the talent pool for teacher recruitment in British Columbia,” submitted to the Review of the Standards for the Education, Competence and Professional Conduct of Educators in BC of the BC Teachers’ Council, 8 pp.

**Encyclopedia Articles**

1. Fillion N. (forthcoming), “Accuracy,” in *The Sage Encyclopedia of Theory*, J. Mattingly (Ed). Golson Publishing.

- Fillion N. and Corless R.M. (forthcoming), “Perturbation Theory,” in *The Sage Encyclopedia of Theory*, J. Mattingly (Ed). Golson Publishing.

### Critical Notices & Book Reviews

- Fillion, N. and Ashton, Z. (2017) “Review of R. Wagner’s *Making and Breaking Mathematical Sense*,” *Canadian Mathematical Society Notes*, October/November, pp. 8-9.
- Tardif, P.-A., Elawani, J., and Fillion, N. (2017). “François Tournier: un hommage,” *Phares*, XVII: pp. 9-24.
- Fillion, N. and Zurcher, B. (2014). “Review of Richard Arthur’s *Natural Deduction: An Introduction to Logic with Real Arguments, a Little History, and Some Humour*,” *Dialogue*, 54(1): pp. 190-192.
- Kao, M., Fillion, N. and Bell, J.L. (2010). “Critical Study of Jean-Pierre Marquis: *From a Geometrical Point of View: A Study of the History and Philosophy of Category Theory*,” *Philosophia Mathematica*, 18(2): pp. 227–234.

### Pedagogical material & software

- A L<sup>A</sup>T<sub>E</sub>X package for dynamic and color-coded deductions and trees in classical and non-classical logic.
- Fillion N. (2016). “Introduction to Logic Exercises: 694 supplemental exercises for *An Introduction to Logic* by R.T.W. Arthur”, Broadview Press, distributed online with book purchase.

### Works in progress

- Fillion, N. and Corless, R.M. (submitted), “Concepts of solution and the finite element method: A philosophical take on variational crimes”
- Fillion, N. and Lynn, M., “The content and logic of imperatives”
- Fillion, N. “Aspects of the epistemology of conspiracy theory”

## GRANTS AND FELLOWSHIPS

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### Research Grants

- SSHRC Insight Grant 2018–2022  
 Project: The third pillar of scientific rationality  
 Collaborators: Robert M. Corless, Chris Smeenk  
 Amount: \$75,713
- UBC Equity Enhancement Fund 2018  
 Project: Community consultation on engaging Indigenous and academic philosophy  
 Applicant: Sylvia Berryman; Partners: Bruce Ferguson, Nicolas Fillion  
 Amount: \$5,800
- SFU’s Office of the President 2015–2018  
 Type: President’s Research Startup Grant  
 Amount: \$17,500
- SFU’s VP Research 2015–2017  
 Type: SSHRC VPR 4A  
 Amount: \$10,000  
 Project: The justifiability of models of complex empirical systems in contexts of predominant error and uncertainty
- SFU Teaching and Learning Center 2015–2016  
 Type: Teaching and Learning Development Grant  
 Amount: \$10,000  
 Project: Improving the teaching of threshold concepts in introductory logic courses
- Rotman Research Catalyst Fund 2014–2015  
 Type: Catalyst Grant  
 Amount: \$8,850  
 Project: Structure, Nonlinearity, and Complexity in Computational Epistemology  
 Co-Applicant: R.M. Corless

## Fellowships

1. Schmeelk Canada Foundation 2009–2011  
Richard J. Schmeelk Canada Fellowship (\$40,000)
2. Social Sciences and Humanities Research Council of Canada 2009-2010  
Doctoral Fellowship (\$20,000), Declined
3. Ontario Graduate Scholarship 2009–2010  
Doctoral Fellowship (\$15,000), Declined
4. Fonds Québécois de la Recherche sur la Société et la Culture 2006–2009  
Doctoral Fellowship (\$60,000)
5. Ladislaw-Goncarow Foundation 2004-2005  
Ladislaw-Goncarow Scholarship to study in Russia (app. \$6,500)

## Funding for events

1. The Fields Institute for Research in the Mathematical Sciences 2016  
Type: General Scientific Activity Support  
Amount: \$16,000  
Project: Computationally Assisted Mathematical Discovery  
Co-Applicants: J.M. Borwein, D.J. Jeffrey, I.S. Kotsireas, R.M. Corless
2. SFU FASS Dean's Office 2015  
Type: Conference Grants  
Amount: \$3,500  
Project: Greater Cascadia History and Philosophy of Science Collaboration Event  
Co-Applicants: H. Andersen
3. The Canadian Journal of Philosophy 2015  
Type: Conference Grants  
Amount: \$1,500  
Project: Greater Cascadia History and Philosophy of Science Collaboration Event  
Co-Applicants: H. Andersen
4. The Fields Institute for Research in the Mathematical Sciences 2015  
Type: General Scientific Activity Support  
Amount: \$6,000  
Project: Algorithms and Complexity in Mathematics, Epistemology, and Science  
Co-Applicants: R.M. Corless, C. Smeenk

## INVITED COLLOQUIUM TALKS

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1. "Conceptual and computational mathematics" Department of Philosophy, McMaster University, 2019.
2. "Inferential practices in applied mathematics from the critical thinking point of view," School of Historical and Philosophical Inquiry, University of Queensland, 2018.
3. "I can't get no satisfaction: the concepts we need to reconstruct arguments in applied mathematics," Department of Logic and Philosophy of Science, University of California, Irvine, 2017.
4. "I can't get no satisfaction: the concepts we need to reconstruct arguments in applied mathematics," Department of Applied Mathematics, Western University, 2017.
5. "The unreasonable effectiveness of mathematics from the numerical analysis point of view," Department of Mathematics, University of Saskatchewan, 2016.
6. "Demystifying the miracle of the effectiveness of applied mathematics," Department of Philosophy, University of Victoria, 2014.
7. "Backward error analysts without borders," Centre for Scientific Computing, Pacific Institute for the Mathematical Sciences (PIMS), Simon Fraser University, 2014.
8. "Aristotle's logic: A comparison of Lukasiewicz's and Corcoran-Smiley's reconstructions," Buffalo Logic Colloquium, The University at Buffalo, State University of New York, 2009.

**Invited Talks**

1. “TBA,” Numerical Computations: Theory and Algorithms. The 3rd International Conference and Summer School, Crotone, Italy, 2019.
2. “A philosophical take on variational crimes,” Workshop on Modeling and Reasoning in the Sciences, National Yang-Ming University, Taipei, Taiwan, 2018.
3. Fillion, N. and Martelli, D. “Overview of critical thinking in the BC K-12 curriculum revisions: Implications for post-secondary teaching and learning,” Developing Minds: Critical Thinking in Curriculum Transfer, Faculty of Arts and Social Sciences & Faculty of Education, Simon Fraser University, 2018.
4. “Conceptual and computational mathematics,” Philosophy of Applied Mathematics Workshop, Paris-Sorbonne, 2016.
5. “The surprisingly old origins of modern decision and game theory,” 43th Annual Philosophy of Science Conference, Inter-University Center, Dubrovnik, 2016.
6. “The philosopher’s best friend,” Keynote address at the 2015 Western Canadian Undergraduate Conference, Simon Fraser University, 2015.
7. “The vindication of computer simulations,” Mathematics as a Tool, Center for Interdisciplinary Studies, University of Bielefeld, 2014.
8. “Error and computation in the context of scientific modelling (with a demystification of the unreasonable effectiveness of mathematics),” 40th Annual Philosophy of Science Conference, Inter-University Center, Dubrovnik, 2013.

**Contributed Talks**

ACRONYMS USED: ACFAS (Congr s annuel de l’Association Francophone pour le Savoir), ACMES (Algorithm and Complexity in Mathematics, Epistemology and Science conference), APA (American Philosophical Association), BCSSTA (British Columbia Social Studies Teachers Association annual conference), CMS (Canadian Mathematical Society winter meeting), CSHPM (Canadian Society for the History and Philosophy of Mathematics’ annual meeting), CSHPS (Canadian Society for the History and Philosophy of Science’s annual conference), HAPOC (International conference of the History and Philosophy of Computing), NWPC (Annual Northwest Philosophy Conference), PSA (Philosophy of Science Association’s biennial meeting), SPSP (Society for the Philosophy of Science in Practice Biennial Meeting), WCPA (Western Canadian Philosophical Association Annual Meeting)

1. “A philosophical take on variational crimes in the finite element method,” CMS, Vancouver, 2018.
2. Fillion, N. & Lynn, M., “The content and logic of imperatives,” WCPA, University of Calgary, 2018.
3. Fillion, N. & Martelli, N., “Integrating critical thinking in the classroom: An SFU initiative to support teachers,” BCSSTA, Vancouver Tech, 2018.
4. “A philosophical take on variational crimes,” SPSP, Ghent University, 2018.
5. “An approach to critical thinking: philosophy of all things!,” BCSSTA, Vancouver Tech, 2017.
6. “Assessing inexactly computed solutions in modeling contexts,” HAPOC, Masaryk University, Brn , Czech Republic, 2017.
7. “Conceptual and computational mathematics,” CSHPM, York University, 2017.
8. “The discovery and justification of mathematical knowledge in the light of modern computational methods,” PSA, Atlanta, 2016.
9. “Conceptual and computational mathematics,” WCPA, University of Alberta, 2016.
10. “The surprisingly old origins of modern decision and game theory,” CMS, Montreal, 2015.
11. “The surprisingly old origins of modern decision and game theory” (job talk), Department of Philosophy, Simon Fraser University, 2015.
12. Fillion, N. & Zurcher, B., “Threshold concepts in formal logic,” CSHPS, University of Ottawa, 2015.
13. “Rethinking the relation between verification and validation,” ACMES, Western University, 2015.
14. Fillion, N. and Bangu, S., “Solutions in the Mathematical Sciences & Epistemic Hierarchies,” PSA, Chicago, 2014.
15. “The vindication of computer simulations,” Knowledge and Models in Climate Science: Philosophical,

- Historical, and Scientific Perspectives, Rotman Institute of Philosophy, Western University, 2014.
16. Fillion, N. and Bangu, S., "Perspectives on computation and epistemic hierarchies," WCPA, University of British Columbia, 2014.
  17. Fillion, N., and Bellhouse, D.R., "Discovering the concept of minimax solution: Montmort, Waldegrave and Bernoulli," CSHPM, Brock University, 2014.
  18. Zhao, K., Contreras, W., and Fillion, N., "Ultimatum game as an indicator for altruism," CSHPM, Brock University, 2014.
  19. Contreras, W., Zhao, K., and Fillion, N., "Asymptotic reasoning in the social sciences," CSHPM, Brock University, 2014.
  20. "Backward error analysis as a model for scientific computation," Models and Simulations in the Sciences: Perspectives from Philosophy, History, and Policy, University of Notre Dame, 2014.
  21. "Mathematical models & epistemic hierarchies," NWPC, Pacific University, 2013.
  22. "Minimal models and scientific computation as aspects of the applicability of mathematics," Workshop on the Applicability of Mathematics, Simon Fraser University, 2013.
  23. "On the epistemological analysis of modeling and computational error in the mathematical sciences," CSHPM, University of Victoria, 2013.
  24. "The applicability of mathematics in the natural sciences" (job talk), Department of Philosophy, Simon Fraser University, 2013.
  25. "L'applicabilité des mathématiques en sciences naturelles" (job talk), Faculty of Philosophy, Université Laval, 2012.
  26. "Backward-error analysis revisited," Southern Ontario Numerical Analysis Day, University of Toronto, 2012.
  27. "The unreasonable awesomeness of mathematics," PGSA Colloquium, Western University, 2012.
  28. Fillion, N. and Corless, R.M., "Computation and explanation," The Plurality of Numerical Methods and their Philosophical Analysis, Institute for the History and Philosophy of Science and Technology, Université Paris-I Panthéon-Sorbonnes, 2011.
  29. Fillion, N. and Moir, R., "Explanation and abstraction: The case of backward error analysis," PSA, Montréal, 2010.
  30. "Clinical equipoise and the ethics of adaptive trials," Meeting of the Canadian Society for the Study of Practical Ethics, Concordia University, 2010.
  31. Fillion, N. and Moir, R., "Modeling and explanation: Some lessons from modern error theory," CSHPM, Concordia University, 2010.
  32. Fillion, N. and Moir, R., "A step forward with backward error," PGSA Colloquium, Western University, 2009.
  33. "Two traditions in logic," PGSA Colloquium, Western University, 2009.
  34. "Conséquences observationnelles en mécanique des continua," ACFAS, University of Ottawa, 2009.
  35. "Logique aristotélicienne: Ontologie formelle ou épistémologie formelle?," ACFAS, University of Ottawa, 2009.
  36. "Explanation in phenomenological theories of physics," Philosophy Graduate Colloquium, University of Waterloo, 2008.
  37. "The Kolmogorov-Gödel translation of classical arithmetic into intuitionistic arithmetic," CSHPM, University of British Columbia, 2008.
  38. "Aristotle's logic and its modern reconstructions," CSHPM, University of British Columbia, 2008.
  39. "The semantics of conditionals," Philosophy Graduate Conference, University of Waterloo, 2008.
  40. "Intuitionism and logicism on the foundations of arithmetic," PGSA Colloquium, Western University, 2008.
  41. "La distinction fregéenne sens/référence et les conditions de possibilité de la métathéorie," ACFAS, Université du Québec à Trois-Rivières, 2007.
  42. "Aristotelian and modern logic," Annual Graduate Colloquium, Concordia University, 2007.
  43. "L'axiomatique: Théorie générale des structures conceptuelles," Colloque pour étudiants gradués, Université Laval, 2006.

## Poster presentation

1. Fillion, N. and Corless, R. “Concepts of approximate solutions and the finite element method,” PSA, Seattle, 2018.
2. Batterman, R.W., Fillion, N., Moir, R. and Overton, J., “Idealization in Scientific Explanation,” Western Research Day, Western University, 2010.

### Commentator

1. “Comments on Ruben’s Conditional Theory of Trying” (by Gillman Payette), WCPA, University of Calgary, 2018.
2. “Meaning, Type-Distinctions, and Predication” (by David Liebesman), Workshop: The Intellect and its Philosophical Limits, Simon Fraser University, 2017.
3. “Poincaré and Structuralism in the Philosophy of Mathematics” (by Janet Folina), APA Pacific, Vancouver, 2015.
4. “Modality and the Progressive” (by Ivan Myerhofer), PhilMiLCog, Western University, 2007.

### Invited Lectures and Seminars

1. Tba, in the seminar on Asymptotics (Robert Batterman), Department of Philosophy, The University of Pittsburgh, February 2019.
2. “Sizing your tin foil hat: critical thinking about conspiracy theories,” in the course *Critical Thinking* (Sandra Lapointe), Department of Philosophy, McMaster, October 2018.
3. “A graduate introduction to philosophy of scientific computing,” 4-hr seminar at the Philosophy & Physical Computing Workshop, Virginia Tech, 2018.
4. “A survey of scientific explanation,” in the graduate course *A Survey of Philosophy of Science* (Kathleen Okruhlik), Department of Philosophy, Western University, February 2013.
5. “Computation in scientific explanation,” in the course *Contemporary Philosophy of Science* (Andrew Wayne), Department of Philosophy, University of Guelph, November 2010.
6. “L’œuvre de Frege et son influence,” in the course *Philosophie du Langage et Pragmatique* (François Pichette), Lettres et Communications, TÉLUQ, November 2010.
7. “Basic concepts of game theory,” in the course *Decision Theory* (Brian Woodcock), Department of Philosophy, Western University, March 2006.
8. “Le réalisme épistémologique de Karl Popper,” in the course *Introduction à l’Épistémologie des Sciences* (Daniel Descroches), Faculty of Philosophy, Université Laval, March 2003.
9. “Induction, vérification et falsification,” in the course *Histoire des Sciences* (Luc Tremblay), Département d’Histoire et Civilisations, Collège Mérici, November 2002.

### TEACHING EXPERIENCE

#### Simon Fraser University

2013–current

Semester	Course title	Course number	Enrolment
W2019	Formal Methods in Philosophy	PHIL 315	
W2019	Logic, Proofs, and Set Theory	PHIL 310	
S2018	Formal Epistemology	455W/815	20
S2018	Introduction to Logic and Reasoning	PHIL 110	233
W2018	Deontic logic	PHIL 314	20
W2018	Introduction to Logic and Reasoning	PHIL 110	141
S2017	The Mathematics of Morality (with Evan Tiffany)	PHIL 332/467W/823	15
S2017	Introduction to Logic and Reasoning	PHIL 110	230
W2017	Category theory (Reading course)	MATH 497	3
W2017	Conspiracy Theories	PHIL 131	34
F2016	Model Theory	PHIL 435/813	10
S2016	Introduction to Logic and Reasoning	PHIL 110	141
S2016	Philosophy as Analysis (with Martin Hahn)	PHIL 435/467W/806	16
W2016	Aristotle’s logic (Reading course)	PHIL 861	1

F2015	Introduction to Logic and Reasoning	PHIL 110	201
F2015	Modal Logic	PHIL 314	16
F2015	Set Theory (Honour's tutorial/Reading course)	PHIL 332/477	2
S2015	Introduction to Logic and Reasoning	PHIL 110	132
S2015	Philosophy of Science	PHIL341/804	29
W2015	Set Theory (Honours' tutorial)	PHIL 477	2
W2015	Advanced Modal Logic (with Ray Jennings)	PHIL 435	5
F2014	Decision and Game Theory	PHIL 231/815	15
F2014	Modal Logic	PHIL314	23
S2014	Scientific Explanation	PHIL 467W/804	20
S2014	Critical Thinking	PHIL XX1	168
W2014	Asymptotic Explanation	PHIL 815	3
F2013	Philosophy of Science	PHIL 341	33
F2013	Introduction to Logic and Reasoning	PHIL 110	223
			Total 1,736

### Other Teaching Experience

- A. **The University of Western Ontario** **2008–2012**
1. Philosophy of Science (2nd-year) W2012
  2. Basic Logic (6-week intensive equivalent to a full-year course, 2nd-year) S2010
  3. Introduction to Philosophy (full-year course, 1st-year) F2008/W2009
- B. **Teaching Assistant.** I have previously been teaching assistant in 13 courses at the undergraduate and graduate levels, in philosophy, applied mathematics, and in French, at the University of Western Ontario, the Russian State University for Humanities, and Université Laval.

### SUPERVISION & GRADUATE EXAMINATION

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#### Graduate Supervision

1. David Rattray, Philosophy, SFU F2018–
2. Farshad SadoughianZadeh, Philosophy, SFU S2018–
3. Somayeh Tohidi, Philosophy, SFU F2017–
4. Zoe Ashton, Philosophy, SFU F2016–S2018  
 Paper: The Role of Audience in Mathematical Proof Development  
 Placement: PhD at the Ohio State University
5. Gabriel Larivière, Philosophy, SFU F2015–W2017  
 Thesis: On Cauchy's Rigorization of Complex Analysis  
 Placement: MA in Islamic Studies, McGill
6. Travis Lacroix, MA Philosophy, SFU F2014–W2016  
 Paper: Signaling games and their models  
 Placement: PhD at University of California, Irvine (LPS department)
7. Bradley Zurcher, MA Philosophy, SFU F2013–W2016  
 Paper: Aristotle's theory of explanatory entailment  
 Placement: Law School at Washington University in St. Louis (top 20 law school)
8. Yuting (Kino) Zhao, MA Philosophy, SFU F2013–W2015  
 Paper: What is rationality good for? A game theoretic perspective  
 Placement: PhD at University of California, Irvine (LPS department).

#### Graduate examination

Semester	Name	Degree	Title
W2018	Matthew Maxwell	MA Philosophy SFU	Smart Shopping for Inductive Methods
S2016	Paul Vicol	MSc Computer Science SFU	An Investigation of Iterated Multi-Agent Belief Change



F2015	Marissa Bennett	MA Philosophy SFU	Metaphysical Pythagoreanism and Tegmark's Mathematical Universe Hypothesis
S2015	Mike Perry	MA Philosophy SFU	Is Conciliationism Incoherent?
W2014	Pier-Alexandre Tardif	MA Philosophy Université Laval	Une interprétation formaliste de la signification et du statut logique de la critique quinienne de la distinction analytique-synthétique

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## SERVICE TO PROFESSION

### Professional leadership

1. Leadership of the developing project BC TACTIC (Teaching and Critical Thinking Innovation Center), including two grants applications F2017—
2. Leadership of the provincial BC initiative to make philosophy a teachable subject in high school W2017—
3. CPA Board of Directors S2017—
4. APA Pacific Program Committee 2019—
5. Canadian Mathematical Society Program Committee 2018

### Conference Organization

1. ACMES: Algorithms and Complexity and Mathematics, Epistemology, and Science  
@ UWO (co-organizers: J.M. Borwein, D.J. Jeffrey, I.S. Kotsireas, and R.M. Corless) May 2016  
@ UWO (co-organizers: R.M. Corless, C. Smeenk, R. Moir) May 2015
2. Seminar in the History and Philosophy of Mathematics  
@ Simon Fraser University (co-organizer: Tom Archibald) 2013–2014
3. LMP: Logic, Mathematics, and Physics Graduate Philosophy Conference  
@ Western University (co-organizer: E. Doyle) 2010  
@ Western University 2009  
@ Western University 2008
4. Philosophy Graduate Students Association Colloquium Series  
@ Western University (co-organizer: K. Biniek) 2008–2009  
@ Western University 2007–2008

### Professional Service Teaching

1. Instructor for *Academics Without Borders* W2016  
Course on “Logic for Computer Science” (2-week intensive), Graduate program, Department of Computer Science, Cape Coast University, Ghana.

### Research Proposals Review

1. Fonds de recherche du Québec – Société et culture (FRQSC) – Ethics and Philosophy 2019  
Provincial MA and PhD fellowship competition
2. FWO: Fonds voor Wetenschappelijk Onderzoek (Research Foundation - Flanders) 2017  
2017 Postdoctoral competition

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## DEPARTMENT & UNIVERSITY SERVICE

### Academic Committees

#### *Simon Fraser University*

1. Tenure and Promotion Committee, Philosophy F2018—
2. FIC Course Coordinator (Critical Thinking) 2015—
3. Hiring committees 2015/16, 2016/17
4. Communication and Outreach Committee F2014–S2018
5. Undergraduate Curriculum Committee F2017–S2018

6. Tenure and Promotion Committee, Linguistics	F2017-S2018
7. Tenure & Promotion Committee, Philosophy	F2016-S2017
8. Graduate Committee	F2015-S2016
9. Colloquium Committee	2013-S2016
<i>University of Western Ontario</i>	
10. Graduate Club Administration Board	2011-2012
11. Steering Committee, Rotman Institute of Philosophy	2009-2010
<i>Université Laval</i>	
12. Graduate Program Committee, Graduate representative	2005-2006
13. Graduate Student Association, Vice-president	2005-2006
14. Faculty of Philosophy Graduate Board Member	2003-2004
15. Undergraduate Student Association, President	2001-2002
16. Graduate Program Committee, Undergraduate representative	2001-2002

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## OUTREACH

### Media appearances

1. “The Truth You Don’t Know”, *CPA magazine*, September 1, 2017.
2. “This semester, new courses run the gamut from gruesome to gleeful”, *The Peak*, January 2017.
3. “SFU prof volunteers in Africa for Academics Without Borders,” *The Peak*, March 17, 2016.
4. Radio-Canada (Première chaîne), Boulevard du Pacifique, 20 October 2015. Topic: The impact of the election of the Liberals for science and universities

### Public Lectures

1. “Sizing your tin foil hat,” Burnaby Festival of Learning, SFU, 2017.
2. “How to critically appraise conspiracy theories?”, BC Humanist Association, Vancouver, 2017.
3. “Philosophy, Science, and the Quest for Knowledge,” Lecture for the Student Service Recruitment Program, SFU, 2015.
4. “Axioms,” *Mathematics After Hours* outreach program, Department of Mathematics, SFU, 2015.
5. “A taste of infinity,” *A taste of  $\pi$*  high school outreach program, Department of Mathematics, 2014.

### High school visits

1. Tamanawis Secondary, April 2018.
2. Vancouver Technical Secondary, February 2018.

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## RELATED PROFESSIONAL ACTIVITIES

### Technical Workshops

1. “Introduction to L<sup>A</sup>T<sub>E</sub>X”, Workshop for graduate students, Department of Philosophy, SFU, September-October 2018.
2. “Introduction to L<sup>A</sup>T<sub>E</sub>X, Bibtex, Beamer, Tikz, and all that”, Workshop for faculty members and graduate students, Department of Mathematics, SFU, November 2015.
3. “Introduction to L<sup>A</sup>T<sub>E</sub>X”, Workshop for faculty members and graduate students, Department of Philosophy, SFU, 11 September 2014.
4. “Introduction to MATLAB”, Workshop for faculty members and graduate students, Department of Philosophy, SFU, 22 October 2013.
5. “Introduction to L<sup>A</sup>T<sub>E</sub>X”, Workshop for faculty members and graduate students, Department of Philosophy, UWO, 26 March 2012.
6. (With A. Botterell) “Academic websites,” Workshops for Graduate Students in Philosophy 2008-2009, Department of Philosophy, The University of Western Ontario, January 2009.
7. “Typesetting in L<sup>A</sup>T<sub>E</sub>X” Two-session workshop for faculty members and graduate students, Department of Philosophy, The University of Western Ontario. September 2007, February 2010, Winter 2013, Summer 2013.

### Reading Groups with Graduate Students

- |                                                 |       |
|-------------------------------------------------|-------|
| 1. Applied modal logic                          | W2017 |
| 2. Philosophy of science (Realism/Anti-realism) | S2014 |
| 3. Philosophy of science (Modelling)            | F2013 |

### LANGUAGES

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French (Native)  
English (Fluent)  
Russian (Reading skills)

### PROFESSIONAL AFFILIATIONS

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Associate Faculty Member, Cognitive Science, Simon Fraser University	2018–
Computer Algebra Research Group of Wilfred Laurier University	2016–
Center for Scientific Computing, Simon Fraser University	2014–
Rotman Institute of Philosophy, University of Western Ontario	2007–2013

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