Nathan Camillo Sidoli **July 3, 2021**

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Education

2000–2004 Ph.D., History and Philosophy of Science and Technology, University of Toronto, Canada
1996–1998 M.A., History and Philosophy of Science and Technology, University of Toronto, Canada
1991–1995 B.A., Liberal Arts, St. John's College, Santa Fe, NM, USA

Postgraduate Positions

2020–Present Professor, School of International Liberal Studies, Waseda University
2015–2020 Associate Professor, School of International Liberal Studies, Waseda University
2009–2015 Assistant Professor, School of International Liberal Studies, Waseda University
2007–2009 Postdoctoral Fellow, Japan Society for the Promotion of Science
2005–2007 Postdoctoral Fellow, US National Science Foundation
Sessional Instructor, Department of History, Simon Fraser University
2004–2005 Postdoctoral Teaching Fellow, University of Toronto

Research Area

M.A. thesis on Archytas of Terentum and music theory in the classical Greek period. Ph.D. thesis on Ptolemy's mathematical approach and applied mathematics in the Hellenistic and Roman Imperial periods. Thesis advisor: Alexander Jones. Postdoctoral project with Len Berggren on the Arabic translations of Greek mathematical works. Postdoctoral project with Ken Saito on Greek mathematical sciences.

Currently collaborating with colleagues on projects related to the history of spherical geometry, Arabic translations of works in the Greek mathematical sciences, and a study of the medieval transmission of analemma techniques. Writing a book on Ptolemy's mathematical methods, as understood in the context of the Greek mathematical sciences.

Teaching Area

Surveys in the cultural, social and intellectual development of the sciences and the relationship between the sciences and their broader political, economic, religious and philosophical contexts. Introductory courses in the interrelations between science, technology and society. Overview courses on the philosophy of science. Topics in cross-cultural transmission of the sciences and scientific traditions. Comparisons of scientific ideas and institutions in diverse cultures.

My teaching webpage for courses taught in the School for International Liberal Studies at Waseda University is here: www.f.waseda.jp/sidoli.

Publications

Books

2018 Sidoli, N., Isahaya, Y., *Thabit ibn Qurra's Restoration of Euclid's* Data *(Kitab Uqlidis fi al-Mu'tayat): Text, Translation, Commentaries*, Springer, Cham. (Reviewed by Jeffrey A. Oaks for MathSciNet.)

2014 Sidoli, N., Van Brummelen, G., eds., *From Alexandria, Through Baghdad: Sources and Studies in the Ancient Greek and Medieval Islamic Mathematical Sciences in Honor of J.L. Berggren*, Springer, Heidelberg, 2014. (Reviewed by J. Chabás, *Suhayl* 14, 219–224, and M. Moyon, *Historia Mathematica* 44, 174–178.)

Refereed Journal Articles and Book Chapters

Forthcoming Sidoli, N., "Translations in the Mathematical Sciences," in S. Brentjes, ed., *Routledge Handbook on Science in the Islamicate World*, Routledge, London, 25 pages.

Sidoli, N., "Ptolemy's Trigonometric Practice," in M. Husson, K. Chemla, A. Keller, with J. Steele, eds., *Mathematical Practices in Relation to Astral Sciences*, Springer, New York, 60 pages.

Ossendrijver, M., Proust, C., Ross, M., and Sidoli, N., "Tables in Antiquity," in D. Tournès, ed., *History of Numerical Tables*, Springer, New York, forthcoming, 80 pages.

2020 Sidoli, N., "Mathematical Methods in Ptolemy's *Analemma*," in D. Juste, B. van Dalen, D.N. Hasse, and C. Burnett, eds., *Ptolemy's Science of the Stars in the Middle Ages*, Brepols, Turnhout, 2020: 35–77.

Sidoli, N., "Mathematical Discourse in Philosophical Authors: Examples from Theon of Smyrna and Cleomedes on Mathematical Astronomy," in C. Carman, and A. Jones, eds., *Instruments – Observations – Theories: Studies in the History of Early Astronomy in Honor of James Evans*, Zenodo, (Open Access), DOI: 10.5281/zenodo.3928498: 213–22.

Sidoli, N., "Fundamentals of Ancient Planetary Theory," in A.C. Bowen, and F. Rochberg, eds., *Hellenistic Astronomy: The Science in Its Contexts*, Brill, Leiden, 2020: 63–70.

Sidoli, N., "Ancient Greek Mathematics," in L. Taub, ed., *The Cambridge Companion to Ancient Greek and Roman Science*, Cambridge University Press, Cambridge, 2020: 185–207.

2019 Sidoli, N., Isahaya, Y., "Nasir al-Din al-Tusi's Comments on Euclid's *Data*," *Historia Mathematica* 47, 87–105. (Reviewed by J.P. Hogendijk for MathSciNet.)

2018 Sidoli, N., "Greek Mathematics," in A. Jones and L. Taub, eds., *The Cambridge History of Science, Vol. 1: Ancient Science*, Cambridge University Press, Cambridge, 2018: 345–373.

Sidoli, N., "Uses of Construction in Problems and Theorems in Euclid's *Elements* I–VI," *Archive for History of Exact Sciences* 72, 2018: 403–452. (Reviewed by V.V. Pambuccian for MathSciNet.)

Sidoli, N., "The Concept of *Given* in Greek Mathematics," *Archive for History of Exact Sciences* 72, 2018: 353–402. (Reviewed by M. Barile for MathSciNet.)

2016 Sidoli, N., "Learned Man and Woman in Antiquity and the Middle Ages," in B. Lightman, ed., *A Companion to the History of Science*, Wiley-Blackwell, Oxford, 2016: 25–38.

2015 Sidoli, N., "Mathematics Education," in W.M. Bloomer, ed., *A Companion to Ancient Education*, Wiley-Blackwell, Oxford, 2015: 387–400.

2014 Sidoli, N., Kusuba, T., "Al-Harawī's Version of Menelaus' *Spherics*," *Suhayl* 13, 2014: 149–212. (Reviewed by V.V. Pambuccian for zbMATH, and by J.P. Hogendijk for MathSciNet.)

Sidoli, N., "Mathematical Tables in Ptolemy's *Almagest*," *Historia Mathematica* 41, 2014: 13–37. (Reviewed by V.V. Pambuccian for zbMATH, and by J.P. Hogendijk for MathSciNet.)

Sidoli, N., "Research on Ancient Greek Mathematical Sciences, 1998-2012," in N. Sidoli and G. Van Brummelen, eds., *From Alexandria, Through Baghdad*, Springer, Heidelberg, 2014: 25–50. (Reviewed by V.V. Pambuccian for zbMATH, and by Ivo Schneider for MathSciNet.)

2012 Sidoli, N., Saito, K., "Comparative Analysis in Greek geometry," *Historia Mathematica* 39, 2012: 1–33. (Reviewed by H. Guggenheimer for zbMATH, and by J.P. Hogendijk for MathSciNet.)

Saito, K., Sidoli, N., "Diagrams and Arguments in Ancient Greek Mathematics: Lessons Drawn from Comparisons of the Manuscript Diagrams with Those in Modern Critical Editions," in K. Chemla, ed., *The History of Mathematical Proof in Ancient Traditions*, Cambridge University Press, Cambridge, 2012: 135–162. (Reviewed by H. Guggenheimer for zbMATH, and by L. Harkleroad for MathSciNet.)

2011 Sidoli, N., "Heron of Alexandria's Date," *Centaurus* 53, 2010: 55–61.

2010 Saito, K., Sidoli, N., "The Function of Diorism in Ancient Greek Analysis," *Historia Mathematica* 37, 2010: 579–614. (Reviewed by L. Harkleroad for zbMATH.)

2009 Sidoli, N., Saito, K., "The Role of Geometric Construction in Theodosius's Spherics," *Archive for History of Exact Sciences* 63, 2009: 581–609. (Reviewed by J. Høyrup for zbMATH.)

2008 Sidoli, N., Kusuba, T., "Naṣīr al-Dīn al-Tūsī's Revision of Theodosius's *Spherics*," *Suhayl* 9, 2008: 9–46. (Reviewed by B. van Dalen for zbMATH. Reprinted in M. Iqbal, ed., *New Perspectives on the History of Islamic Sciences*, Ashgate, Farnham, Surrey, 2012.

2007 Sidoli, N., Berggren, J.L., "The Arabic Version of Ptolemy's *Planisphere* or *Flattening the Surface of the Sphere*: Text, Translation, Commentary," *SCIAMVS* 8, 2007: 37–139. (Reviewed B. van Dalen for zbMATH and by V.J. Katz for MathSciNet.)

Sidoli, N., "What We Can Learn from a Diagram: The Case of Aristarchus' *On the Sizes and Distances of the Sun and Moon*," *Annals of Science* 64, 2007: 525–547. (Reviewed by V.V. Pambuccian for MathSciNet.)

Hanna, G., Sidoli, N., "Visualization and Proof: A Brief Survey of Philosophical Perspectives," *Zentralblatt für Didaktik der Mathematik* 39, 2007: 73–78.

Berggren, J.L., Sidoli, N., "Aristarchus' *On the Sizes and Distances of the Sun and the Moon*: Greek and Arabic Texts," *Archive for History of Exact Sciences* 61, 2007: 213–254. (Reviewed by A.C. Lewis for zbMATH.)

2006 Sidoli, N., "The Sector Theorem Attributed to Menelaus," *SCIAMVS* 7, 2006: 43–79. (Reviewed by B. van Dalen for zbMATH and by J.P. Christianidis for MathSciNet.)

2005 Sidoli, N., "Heron's *Dioptra* 35 and Analemma Methods: An Astronomical Determination of the Distance between Two Cities," *Centaurus* 47, 2005: 236–258. (Reviewed by R. Beedgen for zbMATH.)

2004 Sidoli, N., "Hipparchus and the Ancient Metrical Methods on the Sphere," *Journal for the History of Astronomy* 35, 2004: 74–86.

Sidoli, N., "On the Use of the Term *Diastēma* in Ancient Greek Constructions," *Historia Mathematica* 31, 2004: 2–10. (Reviewed by A.C. Lewis for MathSciNet.)

Hanna, G., DeBruyn, Y., Sidoli, N., Lomas, D., "Teaching Proof in the Context of Physics," *Zentralblatt für Didaktik der Mathematik* 36, 2004: 82–90.

2002 Hanna, G., Sidoli, N., "The Story of ESM," *Educational Studies in Mathematics* 50, 2002: 123–156.

Non-Refereed Papers, Essay Reviews, Short Notices, and Research Reports

2013 Sidoli, N., Review of P. Riedlberger, *Domninus: Encheiridion and Spurious Works*, *SCIAMVS* 14, 2013: 259–263.

Sidoli, N., Li, C., "The Manuscript Diagrams of al-Harawī's version of Menelaus' *Spherics*," in K. Saito, ed., *Reproduced Diagrams from Greek and Arabic Manuscripts*, Research report for the project "Databasing the Manuscript Diagrams of Sources in Ancient and Medieval Mathematics," Japan Society for the Promotion of Science, Grants-in-Aid, 2009–2010, no. 2130025 (Principal Investigator: K. Saito), 2013: 1–68.

2011 Sidoli, N., "Mathematical Tables in Ptolemy's *Almagest*," *Mathematisches Forshungsintitut Oberwolfach*, Report No. 12/2011, Mini-workshop: History of Numerical and Graphical Tables, organized by R. Tobies and D. Tournes, Feb. 27th –Mar. 5th, 2011: 34–37.

Sidoli, N., "Apollonius' *Conics*: The Greek and Arabic Traditions," *Isis* 102, 2011: 537–542.

2009 Sidoli, N. ,「Drawing Diagrams and Making Arguments in Greek Geometry 」『津田塾大学数学・計算機学研究所報 30, 第 19 回数学史シンポジウム (2008)』2009 年：133–150. (*Reports of the Tsuda College Institute for Mathematical and Computer Science: Proceedings of the 19th Symposium in the History of Mathematics* 30, 2009: 133–150.)

2006 Hanna, G., Sidoli, N., "Visualization and Proof: A Brief Survey," in A. Simpson, ed., *Retirement as Process and Concept*, Karlova Univerzita v Praze, Prague, 2006: 101–109.

2004 Sidoli, N., Review of Reviel Netz, *The Works of Archimedes: Translation and Commentary, Volume I: The Two Books On the Sphere and the Cylinder*, Cambridge University Press, Cambridge, 2004, *Aestimatio* 1, 2004: 148–162.

2002 Hanna, G., DeBruyn, Y., Sidoli, N., Lomas, D., "An Application of Concepts from Statics to Geometrical Proofs," in A. Rogerson, ed. *Proceedings of the International Conference on the Humanistic Renaissance in Mathematics Education*, Mathematics Education into the 21st Century Project, Palermo, 2002: 166–171.

Book Reviews

2020 Review of Rashed, R., Papadopoulos, A., *Menelaus' ›Spherics‹: Early Translation and al-Māhānī/al-Harawī's Version*, Berlin, De Gruyter, 2017, *Aestimatio* 14, 2020: 14–21.

Review of Fournet, J.-L., Tihon, A., *Conformément aux observations d'Hipparque: le Papyrus Fouad inv.267 A*, Peeters, Louvain-la-Neuve, 2014, *Aestimatio* 14, 2020: 1–5.

2019 Review of M. Sialaros, ed., *Revolutions and Continuity in Greek Mathematics*, De Gruyter, Berlin, 2018, *Isis* 110, 2019: 809–810.

Review of Rashed, R., Papadopoulos, A., *Menelaus' ›Spherics‹: Early Translation and al-Māhānī / al-Harawī's Version*, De Gruyter, Berlin, 2017, *Bryn Mawr Classical Review*, January, 2019.

2017 Review of Chemla, K., Virbel, J., eds., *Texts, Textual Acts, and the History of Science*, Springer, New York, 2015, *Isis* 108, 2017: 417–418.

2014 Review of Bowen, A.C., *Simplicius on the Planets and their Motions: In Defense of a Heresy*, Brill, Leiden, 2013, *Bryn Mawr Classical Review*, March, 2014.

2013 Review of Kunitzsch, P., Lorch, R., *Theodosius Sphaerica*, Franz Steiner Verlag, Stuttgart, 2010, *Journal of the American Oriental Society* 133, 2013: 592–593.

Review of Pedersen, O., *A Survey of the Almagest, with Annotation and New Commentary by A. Jones*, Springer, New York, 2010, *Historia Mathematica* 40, 2013: 92–93.

2012 Review of Hayashi, E., Saito, K., *Tenbin no Majutsushi: Arukimedesu no Sugaku* (Sorcerer of the Scales: Archimedes' Mathematics), Kyoritsu Shuppan, Tokyo, 2009, *Historia Mathematica* 39, 2012: 222–224.

2010 Review of Lehoux, D., *Astronomy, Weather, and Calendars in the Ancient World*, Cambridge University Press, Cambridge, 2007, *Journal for the History of Astronomy* 41, 2010: 124–126.

2009 Review of Barker, A., *Harmonics in Classical Greece*, Cambridge University Press, Cambridge, 2007, *Bryn Mawr Classical Review*, October, 2009.

2008 Review of Friberg, J., *Unexpected Links Between Egyptian and Babylonian Mathematics*, World Scientific, New Jersey, 2005, and *Amazing Traces of a Babylonian Origin in Greek Mathematics*, World Scientific, New Jersey, 2007, *Aestimatio* 5, 2008: 141–146.

Review of Zhmud, L., (trans. A. Chernoglazov), *The Origin of the History of Science in Classical Antiquity*, Walter de Gruyter, Berlin, 2006, *The Classical Review* 58, 2008: 80–82.

2006 Review of Chirstianidis, J., ed., *Classics in the History of Greek Mathematics*, Kluwer, Dordrecht, 2005, *Historia Mathematica* 33, 2006: 491–493.

Review of Taisbak, C.M., *Euclid's* Data *or the Importance of Being Given*, Museum Tusculanum, Copenhagen, 2003, *Historia Mathematica* 32, 2006: 248–250.

2005 Review of Netz, R., *The Shaping of Deduction in Greek Mathematics*, Cambridge University Press, Cambridge, 1999, *Educational Studies in Mathematics* 58, 2005: 277–282.

2004 Review of Bowen, A.L., Todd, R.B., *Cleomedes' Lectures on Astronomy: A Translation of* The Heavens, University of California Press, Berkeley, 2004, *Bryn Mawr Classical Review*, August, 2004.

Review of Suppes, P., Moravcsik, J. M., Mendell, H., eds., *Ancient & Medieval Traditions in the Exact Sciences: Essays in Memory of Wilbur Knorr*, Stanford University Press, Stanford, 2000, *Annals of Science* 61, 2004: 244–246.

2002 Review of Netz, R., *The Shaping of Deduction in Greek Mathematics*, Cambridge University Press, Cambridge, 1999, *Canadian Journal for Science, Mathematics and Technology Education* 2, 2002: 415–418.

Popularization and Outreach

2021 "Aristarchus," in the Oxford Classical Dictionary.

2019 "Trigonometry," in the Oxford Classical Dictionary.

2018 "Studying the Mathematical Sciences," "Translating a Work of Higher Mathematics," "Menelaus' Spherics," "Competing Theories of Spherical Trigonometry," in the Qatar Digital Library.

2014–2017 Interviewed by Richard Stone for *Science*, and Stephen Ornes for the *Proceedings of the US National Academy of Sciences*.

Talks

Invited Lectures and Workshops

2019 Thabit ibn Qurra's Uses of Euclid's *Data*, Current Trends in the History of Science in Muslim Societies: Debates, Approaches, and Stakes, New York University Abu Dabi, New York, Dec. 2019.

2018 Thabit ibn Qurra's Version of Euclid's *Data*, The Second International Conference on History of Mathematics and Astronomy, Northwest University, Xi'an, Dec. 2018.

2017 Euclid's Postulates and Problems, Workshop in History of Greek Mathematics, Stanford University, Stanford, Oct. 2017.

Ptolemy's Mathematics: An eight hour lecture series, Doctorado en Historia y Filosofía de la Ciencia de la Universidad Nacional Tres de Febrero, Buenos Aires, Aug. 2017.

2016 Naṣīr al-Dīn al-Ṭūsī's Comments on Euclid's *Data*, On Mathemata: Commenting on Ancient Greek and Arabic Mathematical Texts, Humboldt-Universität zu Berlin, TOPOI, Nov. 2016.

2015 Analog Calculations in Ptolemy's *Analemma*, Conference on Ptolemy's Science of the Stars in the Middle Ages, The Warburg Institute, London, Nov. 2015.

Constructions in Euclid's *Elements* I–VI, PhilMath InterSem, Paris, Feb. 2015.

Geometrical Analysis and Trigonometry in Greco-Roman Mathematics, Conference on Mathematical Practices in Relation to the Astral Sciences, Organized by the ERC Research Project "Mathematical Sciences in the Ancient World," Paris, Mar. 2015.

Ptolemy's Approximation Technique for Computing the Parameters of the Models of the Outer Planets, Three-Month Workshop of SAW-ERC: Mathematical Sciences in the Ancient World, Mathematical Practices in Relation to the Astral Sciences, Paris, Feb. 2015.

Analog Calculations in Ptolemy's *Analemma*, Three-Month Workshop of SAW-ERC: Mathematical Sciences in the Ancient World, Mathematical Practices in Relation to the Astral Sciences, Paris, Feb. 2015.

Episodes in Greek Trigonometry, Three-Month Workshop of SAW-ERC: Mathematical Sciences in the Ancient World, Mathematical Practices in Relation to the Astral Sciences, Paris, Feb. 2015.

2014 Mathematical Methods in Ancient Greco-Roman Geography, Department of Classics, Stanford University, Palo Alto, May 2014.

2012 Ptolemy's Mathematical Tables, Seminars in the history of mathematics, Kyoritsu Shuppan, Tokyo, Sep. 2012.

Ptolemy's Mathematical Tables, Workshop on the History of Numerical and Graphical Tables, Centre International de Rencontres Mathématiques, Aix Marseille Université, Luminy, Mar. 2012.

2011 Mathematical Tables in Ptolemy's *Almagest*, Mathematisches Forschungsinstitut Oberwolfach, Mini-Workshop: History of Numerical and Graphical Tables, Feb. 2011.

2010 The Construction, Purpose and Use of Mathematical Tables in Ptolemy's *Almagest*, Séminaire d'histoire et de philosophie des mathématiques, Tables et astronomie, Paris, Mar. 2010.

Constructions in Ancient Greek Spherics: Mathematical Spheres and Solid Globes, Séminaire d'histoire des mathématiques de l'Institut Henri Poincaré: Histoire des sciences, Histoire du texte, Paris, Feb. 2010.

2007 A Historiographic Study of the Diagrams in the Greek, Arabic and Latin Texts of Aristarchus' *On the Sizes and Distances of the Sun and Moon*, Caltech Humanities Seminars, Jan. 2007.

2006 Diagrams for Prop. 13 of Aristarchus' *On the Sizes and Distances of the Sun and Moon*: Historiographic issues arising in a study of manuscript diagrams. Workshop on the Critical Edition of Manuscript Diagrams, Osaka, Nov. 2006.

The Role of (Re)construction in Understanding Heron's *Dioptra* 35: Diagrammatic and Mathematical (Re)constructions for Finding the Great-Arc Distance Between Two Cities. Workshop of the Research Center for Advanced Science and Technology, Tokyo, Oct. 2006.

Ptolemy's Mathematical Epistemology, Friday Evening Lecture, St. John's College, Santa Fe, NM, Apr. 2006.

Conference Talks and Seminars

2018 Euclid's Postulates and Problems, French-Japanese Workshop in the Philosophy of Logic and Mathematics, Keio University, Tokyo, Jan. 2018.

2017 Modeling in Ptolemy's *Analemma*, Fourth International Workshop on Epistemology and Astronomy, Centro Brasileiro de Pesquisas Fisicas, in Rio de Janeiro, Jul. 2017.

Thabit ibn Qurra's *Restoration of Euclid's Data*, 25th International Congress of the History of Science and Technology, Rio de Janeiro, Jul. 2017.

2016 The Baghdadi Translations from Greek into Syriac and Arabic, Islam and Multiculturalism: History, Challenges and Prospects, Waseda University, Tokyo, Dec. 2016

2015 Editing Astral Sciences Tables: Articulating Digital and Paper Publication in Scientific Journals (Round Table), Workshop: Analyzing and Editing Numerical Tables from Ancient Astral Sciences, l'Observatoire de Paris, Paris, Jun. 2015.

2013 Al-Harawi's Edition of Menelaus' *Spherics*, Ancient and Medieval Mathematics: A Symposium in Honor of J. Lennart Berggren, Simon Fraser University, Vancouver, Dec. 2013.

Mathematical Tables in Ptolemy's *Almagest*, Joint Mathematics Meetings (American Mathematical Society and the Mathematical Association of America), San Diego, Jan. 2013.

2011 Constructive Mathematics in Menelaus' *Spherics*: Reflections Arising in Editing the al-Harawi version, Joint Mathematics Meetings (American Mathematical Society and the Mathematical Association of America), New Orleans, Jan. 2011.

2009 Diagrams in the Manuscripts of al-Harawi's Version of Menelaus's *Spherics*. Workshop on the Critical Edition of Manuscript Diagrams, Tokyo, Oct. 2009.

The Function of Numerical Tables in the Mathematical Structure of Ptolemy's *Almagest*, 23rd International Congress of the History of Science and Technology, Budapest, Jul. 2009.

Drawing Diagrams and Making Arguments in Greek Mathematics. Joint Mathematics Meetings (American Mathematical Society and The Mathematical Association of America), Washington, D.C., Jan. 2009.

2008 Diagrams in Greek Mathematics: Mathematical practice and the manuscript tradition in Theodosius's *Spherics*. 19th Symposium in the History of Mathematics at Tsuda College, Tokyo, Oct. 2008.

Mathematical Methods in Ptolemy's *Planisphere*. Annual meeting of the Japanese Society for the History of Science, Kyoto, Apr. 2008.

2007 Ptolemy's *Planisphere*: Reflections Arising in Editing the Arabic Text. Annual meeting of the Canadian Society for the History and Philosophy of Mathematics, Montreal, Jul. 2007.

2006 Ptolemy on Mathematics, the Human Soul and the Physical World, Annual Meeting of the Columbia History of Science Group, Friday Harbor, Washington, Mar. 2006.

2005 The Concept of Compound Ratio in Late Antiquity, Canadian Mathematical Society Annual Winter Meeting, Victoria, British Columbia, Dec. 2005.

The Sector Theorem Attributed to Menelaus: The Arabic and Latin Transmission, Biennial History of Astronomy Workshop at the University of Notre Dame, South Bend, Indiana, Jul. 2005.

Episodes in the History of Greek Trigonometry, Seminar in the History and Philosophy of Mathematics, York University, Toronto, Jan. 2005.

2004 Mathematical Text in Ptolemy's Works, Colloquium Series of the Institute for the History and Philosophy of Science and Technology, University of Toronto, Dec. 2004.

Geometrical Analysis in Heron's *Measurements*, Canadian Mathematical Society Annual Winter Meeting, Montreal, Dec. 2004.

2003 Menelaus' Theorem in Ptolemy and Theon, Canadian Mathematical Society Annual Winter Meeting, Vancouver, Dec. 2003.

Service to the Profession

Ongoing Submission refereeing for various journals: *Alpeh: Historical Studies in Science and Judaism*; *Annals of Science*; *Archive for History of Exact Sciences*; *Archives internationales d'histoire des sciences*; *Centaurus*; *Early Science and Medicine*; *Foundations of Science*; *Ganita Bharanti*; *Greek, Roman, and Byzantine Studies*; *Historia Mathematica*; *Historia Scientiarum*; *Isis*; *Journal for the History of Astronomy*; *Tarikh-e Elm (JIHS)*; *Nuncius*; *Orbis Terrarum*; *Pronesis*; *SCIAMVS*; *Science & Education*; and *Science in Context*

Ongoing Grant proposal refereeing for the US National Science Foundation

2017–Present Co-Editor-in-Chief, *Historia Mathematica*

2015–Present Chief Editor, *SCIAMVS*

2015–2017 Associate Editor, *Historia Mathematica*

2014–Present Paper reviewing for zbMATH

2014–2018 Webmaster, Commission on the History of Science and Technology in Islamic Societies

2012–Present Paper reviewing for MathSciNet

2006–2010 Treasurer, Canadian Society for the History and Philosophy of Mathematics

Awards and Fellowships

2017 Excellence Center Topoi, Berlin, Senior Fellow

2011–2012 Waseda University, Special Topics Grant

2009–2010 Waseda University, New Faculty Grant

2007–2009 Japan Society for the Promotion of Science, Postdoctoral Fellow

2005–2007 National Science Foundation, Postdoctoral Fellow (PI), Science Studies

2004–2005 University of Toronto School of Graduate Studies, Teaching Postdoctoral Fellow

2004 Fredric Hudd Scholarship

2003 Catheral Travel Grant

2001–2004 Massey College, Junior Fellow

2001 Frank M. Waddell Scholarship

2000–2004 University of Toronto, Open Fellowship, PhD

1997–1998 University of Toronto, Open Fellowship, MA

Teaching

As Primary Instructor (Setting content, lecturing, leading seminars, marking)

Waseda University, School for International Liberal Studies

2009–2019 GE152 – *First Year Seminar* (11 terms)
GE201 – *Intermediate Seminar* (11 terms)
MI499 – *Independent Reading Course: History of the Study of Sexuality*
MI501 – *Advanced Seminar: Personality in the Sciences*
MI501 – *Advanced Seminar: What's Modernist about Modern Physics?*
MI501 – *Advanced Seminar: What is a Scientific Fact?*
MI501 – *Advanced Seminar: Technology Studies*
MI501 – *Advanced Seminar: Philosophy of Technology*
MI501 – *Advanced Seminar: Technology and History*
MI501 – *Advanced Seminar: History of Computing*
MI501 – *Advanced Seminar: History of Mathematics (Spherics)*
MI501 – *Advanced Seminar: History of Science, Topics* (2 terms)
MI501 – *Advanced Seminar: Philosophy of Science* (6 terms)

LE201 – *Introduction to History and Philosophy of Science* (11 terms)
LE202 – *Science, Technology and Society* (10 terms)
MI314 – *History of Mathematics* (11 terms)
MI404 – *History of Modern Physical Sciences* (10 terms)
HI413 – *History of Modern Earth and Life Science* (2 terms)

Simon Fraser University, Department of History

2006–2008 HIST360 – *History of Science: 1100 to 1725*
HIST361 – *History of Science: 1700 to Present* (2 terms)

University of Toronto, Institute for the History and Philosophy of Science and Technology

2004–2005 HPS340 – *The Transmission of Early Science*

As Teaching Assistant (Leading seminars and marking)

University of Toronto, Institute for the History and Philosophy of Science and Technology, Department of Classics

2000–2004 HPS200 – *Scientific Revolutions* (3 terms)
HPS/MAT390 – *History of Mathematics until 1700*
HPS/MAT391 – *History of Mathematics after 1700*
CLA206 – *History of Ancient Astronomy*

CLA203 – *Science in Antiquity*

1997–1998 HPS200 – *Scientific Revolutions* (2 terms)
HPS360 – *History of Modern Cosmology*
HPS/MAT391 – *History of Mathematics after 1700*

Other Employment

2004–2005 Ontario Institute for Studies in Education, Toronto, ON, Research Assistant
Conducted research with Prof. Gila Hanna on the crucial role of proof in the development of mathematical thinking. Studied the role of proof in mathematics education from secondary school to university. Developed and wrote a testing instrument for analyzing mathematics textbooks with regard to proof content. Studied the role of physical intuition in student's development of proof and deductive thinking.

2001–2003 Fields Institute for Research in Mathematical Sciences, Toronto, ON, Assistant to the Director of the Mathematics Education Program
Carried out research into funding opportunities. Wrote and co-wrote a number of key grant proposals. Organized the collaboration of researchers developing new programs at a number of major universities throughout Canada. Worked closely with the Director of the Mathematics Education Program in formulating the long-term plans of the project as presented to the director and board of the Fields Institute.

2000–2002 Ontario Institute for Studies in Education, Toronto, ON, Research Assistant
As above.

1999–2000 Good Dreams & Company, Sebastopol, CA, Designer, IS & IP Manager
Worked on all stages of product design in collaboration and independently for a start-up specialty toys design company. Oversaw the development of a number of products from inception to mass production. Established and maintained the computer systems and the intellectual property protocols.

1998–1999 Stanford University, Education Program for Gifted Youth, Stanford University, CA, Research Assistant
Worked with a team under the supervision of Prof. Patrick Suppes to develop an interactive, computer-based theorem-proving environment for geometry and elementary logic. Performed quality assurance testing for distance-learning computer programs.

1997–1998 Ontario Institute for Studies in Education, Toronto, ON, Research Assistant
As above.

1995–1996 HearthSong, Inc. & Childcraft, Rohnert Park, CA, Product Designer
Worked independently and in collaboration on product development for two established specialty toy companies. Worked in various aspects of the design process including being one of the lead designers and the project coordinator for the Magnuts® line, a major product introduction.

Additional Information

Working knowledge of LaTeX, XeLaTeX, and Mathematica® (with a Mathematica® package on Ptolemy's trigonometry published online). Reading knowledge of French, German, Arabic, Latin and Ancient Greek. Conversational and written Japanese. Erdős number of 4.