

ORCID: [0009-0000-2155-8749](https://orcid.org/0009-0000-2155-8749)

Email: [edoolittle@firstnationsuniversity.ca](mailto:edoolittle@firstnationsuniversity.ca)

Website: [www.fnuniv.ca/academic/faculty/dr-edward-doolittle](http://www.fnuniv.ca/academic/faculty/dr-edward-doolittle)

Associate Professor of Mathematics

Department of Indigenous Knowledges and Science

First Nations University of Canada

1 First Nations Way, Regina, Saskatchewan, S4S 7K2, Canada

## Current Professional Appointments

- 2024–on **Associate Dean, Research and Graduate Programs**, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)
- 2024–on **Co-chair (Indigenous Research)**, Research Ethics Board, University of Regina [www.uregina.ca](http://www.uregina.ca)
- 2014–on **Associate Professor of Mathematics**, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)

## Previous Professional Appointments

- 2011–2014 **Associate Professor of Mathematics and Department Head**, First Nations University of Canada
- 2009–2011 **Associate Professor of Mathematics**, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)
- 2008–2009 **Assistant Professor of Mathematics**, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)
- 2005–2008 **Assistant Professor of Mathematics**, University of Regina [www.uregina.ca](http://www.uregina.ca)
- 2002–2005 **Assistant Professor of Mathematics and Department Head**, First Nations University of Canada
- 2001–2002 **Assistant Professor of Mathematics**, Saskatchewan Indian Federated College

## Leadership and Involvement

- 2025–on **Board Member**, Board of Directors, Pacific Institute for the Mathematical Sciences (PIMS) [www.pims.math.ca/people/board](http://www.pims.math.ca/people/board)
- 2023–on **Chair**, Mathematics and Reconciliation Committee, Canadian Mathematical Society (CMS) [cms.math.ca/about-the-cms/governance/committees/#rmc](http://cms.math.ca/about-the-cms/governance/committees/#rmc)
- 2022–on **Executive Member**, Computer-Assisted Research Mathematics and its Applications (CARMA), Australia [carmamaths.org/people/](http://carmamaths.org/people/)
- 2022–on **Committee Member**, Equity, Diversity and Inclusion Advisory Committee, Fields Institute for Research in Mathematical Sciences (Fields) [www.fields.utoronto.ca](http://www.fields.utoronto.ca)
- 2021–on **Committee Member**, Indigenous Engagement Committee, Pacific Institute for the Mathematical Sciences (PIMS) [www.pims.math.ca/people/committees/indigenous-engagement-committee](http://www.pims.math.ca/people/committees/indigenous-engagement-committee)
- 2020–on **Board Member**, Equity, Diversity and Inclusion Advisory Board, Banff International Research Station (BIRS) [www.birs.ca/about/governance/scientific-management/Equity-Diversity-Inclusion-Board/current-members-EDIB](http://www.birs.ca/about/governance/scientific-management/Equity-Diversity-Inclusion-Board/current-members-EDIB)
- 2019–on **Judge**, National Judging Team, Youth Science Canada (YSC) [youthscience.ca](http://youthscience.ca)
- 2018–on **Trustee**, Trust Fund Committee, University of Regina Faculty Association (URFA) [www.urfa.ca/committees/trust-fund](http://www.urfa.ca/committees/trust-fund)

## Education

- 1992–1997 **PhD in Mathematics**, University of Toronto [www.utoronto.ca](http://www.utoronto.ca)  
**Thesis:** A Parametrix for Stable Step Two Hypoelliptic Partial Differential Operators **Advisor:** Peter Greiner  
[utoronto.scholaris.ca/server/api/core/bitstreams/a6c7bee0-0bce-49dd-8044-e0695623a0dc/content](http://utoronto.scholaris.ca/server/api/core/bitstreams/a6c7bee0-0bce-49dd-8044-e0695623a0dc/content)
- 1990–1992 **MSc in Mathematics**, University of Toronto, [www.utoronto.ca](http://www.utoronto.ca)
- 1985–1990 **BSc in Mathematics**, University of Toronto, [www.utoronto.ca](http://www.utoronto.ca)

## Indigenous Identity

I am a **Status Indian**, member of the **Lower Mohawk** band of **Six Nations**.

## Fellowships and Awards

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- 2024 **Fellow** of the Canadian Mathematical Society  
[cms.math.ca/news-item/canadian-mathematical-societys-2024-class-of-fellows-announced/](https://cms.math.ca/news-item/canadian-mathematical-societys-2024-class-of-fellows-announced/)
- 2023 **Adrien Pouliot Award**, Canadian Mathematical Society  
[cms.math.ca/news-item/dr-edward-doolittle-named-the-2023-adrien-pouliot-award-recipient/](https://cms.math.ca/news-item/dr-edward-doolittle-named-the-2023-adrien-pouliot-award-recipient/)
- 1992 **Governor General's Gold Medal** [www.gg.ca/en/honours/recipients/116-5733](https://www.gg.ca/en/honours/recipients/116-5733)
- 1987 **Honorable Mention**, William Lowell Putnam Mathematical Competition  
[kskedlaya.org/putnam-archive/putnam1987results.html](https://kskedlaya.org/putnam-archive/putnam1987results.html)

## Grants

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- 2026 **Mathematics Bundle**. Banff International Research Station (BIRS) workshop 26w5629.  
Glanfield, F (PI), [Doolittle, E](#), McKenna, B [www.birs.ca/event/26w5629](https://www.birs.ca/event/26w5629)
- 2025–2027 **Word Puzzles in Indigenous Languages**. Humanities Research Institute Fellowship, University of Regina.  
[Doolittle, E](#) (PI). (**\$5,000 over 2 years**) [www.humanitiesresearch.org/profile-dr-edward-doolittle/](https://www.humanitiesresearch.org/profile-dr-edward-doolittle/)
- 2025 **The Math Bundle**. Banff International Research Station (BIRS) workshop 25w5472.  
[Doolittle, E](#) (PI), Glanfield, F, McKenna, B [www.birs.ca/events/2025/5-day-workshops/25w5472](https://www.birs.ca/events/2025/5-day-workshops/25w5472)
- 2024–2030 **Critical Approaches to Indigenous Relationality**. Social Sciences and Humanities Research Council (SSHRC) Partnership Grant. [www.prairierelationality.ca/cair-meet-our-team-co-applicants](https://www.prairierelationality.ca/cair-meet-our-team-co-applicants)  
Jobin, S (PI), et. al, [Doolittle, E](#), et. al (**\$2.5 million over 6 years**)
- 2024–2029 **SK-NEIHR: Indigenous Futurisms in Indigenous Health and Wellbeing: The natawihowin and mamawiikikayaahk Research, Training and Mentorship Networks**. Network Environments for Indigenous Health Research (NEIHR) operating grant, Institute of Indigenous Peoples' Health (IIPH), Canadian Institutes of Health Research (CIHR) [research-groups.usask.ca/sk-neihr/index.php](https://research-groups.usask.ca/sk-neihr/index.php)  
Henry, R (NPI), Campbell, L (PI), [Doolittle, E](#) (PI), et. al (**\$5.575 million over 5 years**)
- 2024–2026 **The Mathematics of Indigenous Games**. First Nations University Board of Governors Research Award.  
[Doolittle, E](#) (PI), Fallat, S. (**\$5000 over 2 years**)
- 2023–2028 **Mathematics Education for STEM as Place**. Social Sciences and Humanities Research Council (SSHRC) Insight Grant. [www.sshrc-crsh.gc.ca/results-resultats/recipient-recipientaires/2021/ig-ss-eng.aspx](https://www.sshrc-crsh.gc.ca/results-resultats/recipient-recipientaires/2021/ig-ss-eng.aspx)  
Nicol, C (PI), [Doolittle, E](#), Glanfield, F, Thom, J (**\$360,000 over 5 years**)
- 2022–2027 **Banff International Research Station**. Natural Sciences and Engineering Research Council (NSERC) Discovery Institutes Support Grants. [www.nserc-crsng.gc.ca/ase-oro/Details-Detailles\\_eng.asp?id=767960](https://www.nserc-crsng.gc.ca/ase-oro/Details-Detailles_eng.asp?id=767960)  
Pramanik, M (PI), Behjat, L, [Doolittle, E](#), Frappier, M, Husain, V, Lewis, M, Sun, L. (**\$5 million over 5 years**)
- 2013 **Understanding Relationships between Aboriginal Knowledge Systems, Wisdom Traditions, and Mathematics: Research Possibilities**. Banff International Research Station (BIRS) workshop 13w5120.  
[Doolittle, E](#); Glanfield, F [www.birs.ca/events/2013/5-day-workshops/13w5120](https://www.birs.ca/events/2013/5-day-workshops/13w5120)
- 2010–2012 **Creating a Research Network to Develop an Understanding of Relationships between Aboriginal Knowledge Systems, Wisdom Traditions, and Mathematics Education**. Social Sciences and Humanities Research Council (SSHRC) Aboriginal Research Development Grant.  
Glanfield, F (PI), Donald, D, [Doolittle, E](#), Sterenberg G (**\$25,000 over 2 years**)  
[www.outil.ost.uqam.ca/crsh/Detail.aspx?Cle=78132&Langue=2](https://www.outil.ost.uqam.ca/crsh/Detail.aspx?Cle=78132&Langue=2)
- 2008 **MATH 104/105 Development of Online Calculus**  
Technology Enhanced Learning grant, Ministry of Advanced Education, Government of Saskatchewan.  
Herman, Allen (PI) & [Doolittle, E](#). (**\$30,000**)
- 1991–1995 **NSERC Postgraduate Scholarship (\$56,000 over 4 years)**  
[www.nserc-crsng.gc.ca/ase-oro/index\\_eng.asp?new](https://www.nserc-crsng.gc.ca/ase-oro/index_eng.asp?new)

## Supervision

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- 2024–on Layne Burns, MSc in Mathematics, University of Regina (**Co-supervisor**)
- 2024–on Whitney Ogle, MA in Indigenous Education, University of Regina (**Committee Member**)

- 2023–2024 Layne Burns, Natural Sciences and Engineering Research Council (NSERC) Undergraduate Student Research Award (USRA), First Nations University of Canada (**Supervisor**)
- 2023–on John Porrit, PhD in Mathematics Education, University of Regina (**Co-supervisor**)
- 2023–on Ehdaa Matia, PhD in Mathematics Education, University of Regina (**Committee Member**)
- 2022–2023 Shana Graham, Postdoctoral Fellowship, University of Regina (**Co-supervisor**)
- 2022 Myron Medina, PhD in Mathematics Education, University of British Columbia (**External Examiner**)  
[open.library.ubc.ca/media/download/pdf/24/1.0421274/4](https://open.library.ubc.ca/media/download/pdf/24/1.0421274/4)
- 2020–on Tannen Acoose, PhD in Mathematics, University of Regina (**Committee Member**)
- 2018 Vanessa Braun, MA in Mathematics Education, University of Regina (**External Examiner**)  
[ourspace.uregina.ca/server/api/core/bitstreams/17ba3eee-6a3b-40aa-add6-4fe95b865431/content](https://ourspace.uregina.ca/server/api/core/bitstreams/17ba3eee-6a3b-40aa-add6-4fe95b865431/content)
- 2017–2020 Shana Graham, PhD in Mathematics Education, University of Regina (**Committee Member**)  
[ourspace.uregina.ca/server/api/core/bitstreams/8facba27-f8f1-4d29-b47b-e0d2e7634000/content](https://ourspace.uregina.ca/server/api/core/bitstreams/8facba27-f8f1-4d29-b47b-e0d2e7634000/content)
- 2012–2017 Tannen Acoose, MSc in Mathematics, University of Regina (**Co-supervisor**)  
[ourspace.uregina.ca/server/api/core/bitstreams/8fe04ddf-4683-467a-837c-220914dcacc0/content](https://ourspace.uregina.ca/server/api/core/bitstreams/8fe04ddf-4683-467a-837c-220914dcacc0/content)
- 2003–2005 Meseret Bowden, MSc in Mathematics, University of Regina (**Supervisor**)

## Papers in Refereed Journals

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- future Lemon, M., Thom, J. S., Doolittle, E., Glanfield, F., & Nicol, C. (2025). Time, place, and learning STEM as place. *Journal of Curriculum Studies*. Under review.
- future Dosselmann, R., Doolittle, E., & Tayal, V. Quipu data structure. Submitted to Springer New Generation Computing.
- future Doolittle, E., & Burns, L. Analysis of a Game Similar to the Peach Stone Bowl Game. In preparation.
- 2023 Nicol, C., Thom, J. S., Doolittle, E., Glanfield, F., & Ghostkeeper, E. (2023) Mathematics education for STEM as place. *ZDM – Mathematics Education*, 55(7), 1231–1242. [doi.org/10.1007/s11858-023-01498-z](https://doi.org/10.1007/s11858-023-01498-z)
- 2022 Adusei, K. K., Ng, K. T. W., Karimi, N., Mahmud, T. S., & Doolittle, E. (2022). Modeling of municipal waste disposal behaviors related to meteorological seasons using recurrent neural network LSTM models. *Ecological Informatics*, 72, 101925. [doi.org/10.1016/j.ecoinf.2022.101925](https://doi.org/10.1016/j.ecoinf.2022.101925)
- 2020 Leung, F.-S., Radzimski, V., & Doolittle, E. (2020). Reimagining Authentic Mathematical Tasks for Non-STEM Majors. *Canadian Journal of Science, Mathematics and Technology Education*, 20(2), 205–217. [doi.org/10.1007/s42330-020-00084-9](https://doi.org/10.1007/s42330-020-00084-9)
- 2017 Miller, A. M., & Doolittle, E. (2017). RaráMuri Bird Knowledge and Environmental Change in the Sierra Tarahumara, Chihuahua, Mexico. *Journal of Ethnobiology*, 37(4), 663–681. [doi.org/10.2993/0278-0771-37.4.663](https://doi.org/10.2993/0278-0771-37.4.663)
- 2010 Kajander, A., Mason, R., Taylor, P., Doolittle, E., Boland, T., Jarvis, D., & Maciejewski, W. (2010). Multiple Visions of Teachers' understandings of Mathematics. *For the Learning of Mathematics*, 30(3), 50–56. [www.jstor.org/stable/41319540](https://www.jstor.org/stable/41319540)
- 2007 Doolittle, E., & Glanfield, F. (2007). Balancing equations and culture: Indigenous educators reflect on mathematics education. *For the Learning of Mathematics*, 27(3), 27–30. [www.jstor.org/stable/40248584](https://www.jstor.org/stable/40248584)
- 2006 Berg, L. C., Longman, S., Hepting, D., & Doolittle, E. (2006). Respectful actions in research: Aboriginal adolescents speaking their future. *DELTA KAPPA GAMMA BULLETIN*, 72(3), 23–29.
- 2000 Ferrando, S. E., Doolittle, E., Bernal, A. J., & Bernal, L. J. (2000). Probabilistic matching pursuit with Gabor dictionaries. *Signal Processing*, 80(10), 2099–2120. [doi.org/10.1016/S0165-1684\(00\)00071-2](https://doi.org/10.1016/S0165-1684(00)00071-2)

## Book Chapters

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- future Doolittle, E., Graham, S., & Hughes, A. Division with remainder: Indigenous perspectives. Under review.
- 2025 Doolittle, E., & Hughes, A. (2025). Perhaps we didn't need a bridge: In dialogue with Indigenous mathematics. In K. Kiewitt, R. Lutz, G. Cajete, M. do C. dos S. Gonçalves, & D. K. Johanna (Eds.), *Decolonizing Western-Indigenous Dialogues: Interwoven Epistemologies for Multiple Modernities*. Bloomsbury Academic. [www.bloomsbury.com/ca/decolonizing-westernindigenous-dialogues-9781350425200/](https://www.bloomsbury.com/ca/decolonizing-westernindigenous-dialogues-9781350425200/)
- 2018 Doolittle, E. (2018). Off the Grid. In S. Gerofsky (Ed.), *Contemporary Environmental and Mathematics Education Modelling Using New Geometric Approaches: Geometries of Liberation* (pp. 101–121). Palgrave Pivot. [doi.org/10.1007/978-3-319-72523-9\\_7](https://doi.org/10.1007/978-3-319-72523-9_7)

2018 Doolittle, E. (2018). Foreword. In A. Kajander, J. Holm, & E. J. Chernoff (Eds.), *Teaching and Learning Secondary School Mathematics Canadian Perspectives in an International Context* (1st ed. 2018, pp. v--xi). Springer International Publishing. [doi.org/10.1007/978-3-319-92390-1](https://doi.org/10.1007/978-3-319-92390-1)

## Articles in Periodicals

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- 2021 Doolittle, E (2021, December). Explorations in Indigenous Mathematics: Drum Lacing. *Crux Mathematicorum*, 47(10), 481--486. [cms.math.ca/publications/crux/issue/?volume=47&issue=10](https://cms.math.ca/publications/crux/issue/?volume=47&issue=10)
- 2021 Doolittle, E (2021, January). Explorations in Indigenous Mathematics: The Starblanket Design. *Crux Mathematicorum*, 47(1), 18--24. [cms.math.ca/publications/crux/issue/?volume=47&issue=1](https://cms.math.ca/publications/crux/issue/?volume=47&issue=1)
- 2020 Doolittle, E (2020, March). Mathematics and Reconciliation. *CMS Notes*, 52(2), 2--5. [notes.math.ca/en/article/mathematics-and-reconciliation/](https://notes.math.ca/en/article/mathematics-and-reconciliation/)
- 2019 Barr, D., Desautniers, S., Doolittle, E, & Jungic, V. (2019, April). Indigenization and Reconciliation through University Mathematics: Why, When and How? *CMS Notes*, 51(2), 9--11. [notes.math.ca/archives/Notesv51n2.pdf](https://notes.math.ca/archives/Notesv51n2.pdf)

## Conference Proceedings

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- future Doolittle, E (2024). "Mathematics as a Spiritual Being". Invited talk in the Proceedings of the Fifteenth International Conference on Mathematics Education (ICME-15)
- 2021 Staats, S., Ugboajah, I., Chronaki, A., Doolittle, E, & Sircar, S. (2021). "There is no America without inequality": Imagining social justice writing in a calculus class. In D. Kollosche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference* (Vol. 1, pp. 260--263). Tredition. [doi.org/10.5281/zenodo.5393187](https://doi.org/10.5281/zenodo.5393187)
- 2010 Doolittle, E, Lunney Borden, L., & Wiseman, D. (2011, May). Can We Be Thankful for Mathematics? Mathematical Thinking and Aboriginal Peoples. Proceedings of the 2010 Annual Meeting of the Canadian Mathematics Education Study Group = Actes de La Rencontre Annuelle 2010 Du Groupe Canadien d'Etude En Didactique Des Mathematiques (34th, Burnaby, British Columbia, Canada, May 21-25, 2010). [www.cmesg.org/wp-content/uploads/2015/01/CMESG2010.pdf](http://www.cmesg.org/wp-content/uploads/2015/01/CMESG2010.pdf)
- 2006 Doolittle, E (2007, May). Mathematics as Medicine. Proceedings of the 2006 Annual Meeting of the Canadian Mathematics Education Study Group = Actes de La Rencontre Annuelle 2006 Du Groupe Canadien d'Etude En Didactique Des Mathematiques (30th, Calgary, Alberta, Canada, Jun 3-7, 2006). [www.cmesg.org/wp-content/uploads/2015/01/CMESG2006.pdf](http://www.cmesg.org/wp-content/uploads/2015/01/CMESG2006.pdf)

## Peer Review and Editorial Work

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- 2025 **Chair**, Expert Committee, Canada Foundation for Innovation (CFI) [www.innovation.ca](http://www.innovation.ca)
- 2024-on **Guest Editor**, *Education Sciences* special issue Indigenous Pedagogies and Perspectives in STEM and Mathematics Education: Learning that Supports the Well-Being of Self, Family, Community, Land, and Ancestors
- 2024 **Referee** for the *International Journal of Science and Mathematics Education*
- 2022 **Peer Review Member**, First Nations Biobanking and Genomic Research committee, Canadian Institutes of Health Research (CIHR) [www.researchnet-recherchenet.ca/rnr16/vwOpprnttyDtIs.do?prog=3635](http://www.researchnet-recherchenet.ca/rnr16/vwOpprnttyDtIs.do?prog=3635)
- 2020 **Referee** for the *Engaged Scholar* journal: Community-Based Research, Teaching and Learning special issue on Trans-systemic and Indigenous Knowledges
- 2018 **Referee** for the *Minnesota Journal of Undergraduate Mathematics* [pubs.lib.umn.edu/index.php/mjum/](http://pubs.lib.umn.edu/index.php/mjum/)
- 2016-2017 **Referee** for *Canadian Journal of Science, Mathematics and Technology Education* special issue on Indigenous Mathematics Education
- 2014 **Referee**, *in education* journal [journals.uregina.ca/ineducation](http://journals.uregina.ca/ineducation)
- 2012 **Member**, Multidisciplinary Assessment Committee, Canada Foundation for Innovation (CFI) [www.innovation.ca](http://www.innovation.ca)
- 2012 **Member**, Insight Grant Aboriginal Research Adjudication Committee, Social Sciences and Humanities Research Council (SSHRC) [sshr-crsh.gc.ca](http://sshr-crsh.gc.ca)

- 2009 **Referee** for the *Canadian Journal of Science, Mathematics and Technology Education* special issue on Indigenous Science through Place
- 2005–2009 **Reviewer** for Pearson Education’s *Math Makes Sense* K-12 textbook series for the Western and Northern Canadian Protocol (WNCP) curriculum
- 1996–1997 **Language Editor** for Ivrii, V. *Microlocal Analysis and Precise Spectral Asymptotics*. Springer Verlag

## Reports

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- 2000 Doolittle, E. *Report on the Creation of an Aboriginal Studies Course at Queen’s University*


## Problem Solutions

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- 2006 Doolittle, E (2006a). Solution to Problem 3026. *Crux Mathematicorum*, 32(3), 184–185.  
Doolittle, E (2006b). Solution to Problem 3028. *Crux Mathematicorum*, 32(3), 186–187.  
Doolittle, E (2006c). Solution to Problem 3029. *Crux Mathematicorum*, 32(3), 187–188.  
[cms.math.ca/publications/crux/issue/?volume=32&issue=3](https://cms.math.ca/publications/crux/issue/?volume=32&issue=3)
- 2006 Doolittle, E (2006d). Solution to Problem 3080. *Crux Mathematicorum*, 32(7), 473–475.  
[cms.math.ca/publications/crux/issue/?volume=32&issue=7](https://cms.math.ca/publications/crux/issue/?volume=32&issue=7)
- 1988 Doolittle, E (1988a). Solution to Problem 1985.305.8. *Crux Mathematicorum*, 14(2), 42–43.  
Doolittle, E (1988b). Solution to Problem 1985.305.10. *Crux Mathematicorum*, 14(2), 43–44.  
[cms.math.ca/publications/crux/issue/?volume=14&issue=2](https://cms.math.ca/publications/crux/issue/?volume=14&issue=2)
- 1988 Doolittle, E (1988c). Solution to Problem 1985.305.11. *Crux Mathematicorum*, 14(3), 68–69.  
Doolittle, E (1988d). Solution to Problem 1985.306.19. *Crux Mathematicorum*, 14(3), 70–71.  
Doolittle, E (1988e). Solution to Problem 1985.306.20. *Crux Mathematicorum*, 14(3), 71.  
Doolittle, E (1988f). Solution to Problem 1985.307.22. *Crux Mathematicorum*, 14(3), 71–72.  
Doolittle, E (1988g). Solution to Problem 1985.307.23. *Crux Mathematicorum*, 14(3), 72.  
Doolittle, E (1988h). Solution to Problem 1985.307.26. *Crux Mathematicorum*, 14(3), 73–74.  
Doolittle, E (1988i). Solution to Problem 1985.307.27. *Crux Mathematicorum*, 14(3), 74–75.  
[cms.math.ca/publications/crux/issue/?volume=14&issue=3](https://cms.math.ca/publications/crux/issue/?volume=14&issue=3)
- 1988 Doolittle, E (1988j). Solution to Problem 1986.3.1. *Crux Mathematicorum*, 14(4), 102–103.  
Doolittle, E (1988k). Solution to Problem 1986.4.2. *Crux Mathematicorum*, 14(4), 103.  
Doolittle, E (1988l). Solution to Problem 1986.4.3. *Crux Mathematicorum*, 14(4), 103.  
Doolittle, E (1988m). Solution to Problem 1986.4.4. *Crux Mathematicorum*, 14(4), 104.  
[cms.math.ca/publications/crux/issue/?volume=14&issue=4](https://cms.math.ca/publications/crux/issue/?volume=14&issue=4)


## Open Software

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- 2025 **Curriculum Vitae**, adaptation of a GitHub template for developing a readable curriculum vitae in  $\LaTeX$ .  [edoolittle/cv](https://github.com/edoolittle/cv).

## Open Educational Resources

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- 2025 **Calculus I**, resources including Beamer slides, problem sets, and solutions, for use in conjunction with Stewart Calculus.  [edoolittle/calculus-1](https://github.com/edoolittle/calculus-1).

## Selected Presentations, Workshops, and Other Media

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- 2025 Doolittle, E. Rotations in Indigenous Mathematics and in Mathematics Education. Talk at The Math Bundle, Banff International Research Station (BIRS) workshop 25w5472
- 2025 Doolittle, E. Indigenous Students and Mathematics Competitions, Math Unity: Enhancing Diversity in Mathematics Through Outreach, 2025 Canadian Mathematical Society Summer Meeting
- 2025 Doolittle, E. Indigenous Games in Statistics Education and Research, Indigenizing the statistics curriculum, 2025 Statistical Society of Canada Annual Meeting [tinyurl.com/indigenous-games-stats-ed-pptx](https://tinyurl.com/indigenous-games-stats-ed-pptx)
- 2025 Keshen, J, Ottmann, J, Yost, C, Doolittle, E. ReconciliAction Panel, National Building Reconciliation Forum 2025, First Nations University of Canada and the University of Regina



- 2025 Doolittle, E. Division with Remainder: Indigenous Perspectives. Alberta Mathematics Dialogue 2025, University of Calgary [tinyurl.com/division-with-remainder-pptx](https://tinyurl.com/division-with-remainder-pptx)
- 2025 Doolittle, E. Tips and Tricks for UR Courses. FNUniv Instructors Lunch and Learn, First Nations University of Canada [urcourses.uregina.ca/mod/page/view.php?id=2932292&forceview=1](https://urcourses.uregina.ca/mod/page/view.php?id=2932292&forceview=1)
- 2025 Doolittle, E. Mathematics as Story. Storytelling through Art, Language, and Action. State University of New York at Buffalo
- 2024 Doolittle, E. String Figures and Knots. Aboriginal and Torres Strait Islander Mathematics Alliance (ATSIMA) STEM Camp, Birrigai Outdoor School, Australian Capital Territory
- 2024 Doolittle, E. Mathematics as a Spiritual Being. Invited talk at the Department of Mathematics, University of Saskatchewan [usask.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=001c1142-f3a6-476b-bed9-b13c0037c04f](https://usask.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=001c1142-f3a6-476b-bed9-b13c0037c04f)
- 2024 Doolittle, E. Presenter and Organizer for Indigenising University Mathematics 3 international conference held at La Trobe University, Melbourne, Australia
- 2023 Doolittle, E. Better Living Through Combinatorics. Topic session at the 2023 Canadian Math Education Study Group Conference
- 2023 Doolittle, E. (2023, September 1). Indigenous Math Podcast 1 (No. 1) [Broadcast]. [www.cfnuradio.ca/voices/](https://www.cfnuradio.ca/voices/)
- 2023 Doolittle, E. & Czuy, K. (2023, June 3). Mathematics is Creation, Being, & Medicine (No. 15) [Broadcast] [open.spotify.com/episode/21oDjAQvZIOVWIIRh3CaKS](https://open.spotify.com/episode/21oDjAQvZIOVWIIRh3CaKS)
- 2023 Doolittle, E. Indigenizing University Mathematics. Invited plenary speaker at Alberta Mathematics Dialogue
- 2022 Doolittle, E. Indigenous Maths, Global Math, and Indigenizing Mathematics. The Centre for Indigenous Knowledges and Languages, and the Department of Mathematics and Statistics, York University [www.youtube.com/watch?v=ptk\\_Ga43Wg](https://www.youtube.com/watch?v=ptk_Ga43Wg)
- 2022 Doolittle, E. Presenter and Organizer for Indigenizing University Mathematics 2 international conference held at the University of Newcastle, Australia, and at First Nations University of Canada
- 2022 Doolittle, E. Bridging Indigenous Mathematics and Global Mathematics. Turtle Island Indigenous Science Conference 2022, University of Manitoba
- 2022 Doolittle, E. 'Tent Talk' on Indigenous Mathematics. Teaching and Learning Here and Now conference at the University of Regina
- 2022 Doolittle, E. & Native Stories. (2022, April 3). Native Stories: Indigenous Mathematicians: Edward Doolittle [Broadcast] [nativestories.org/indigenous-mathematicians-edward-doolittle/](https://nativestories.org/indigenous-mathematicians-edward-doolittle/)
- 2021 Doolittle, E. Indigenizing Mathematics, University of Toronto Mathematics Department Equity Forum
- 2021 Leung, F-S, Radzimski, V, & Doolittle, E. Reimagining Authentic Mathematical Tasks Non-STEM Majors, Paper Panel Presentation A, Fields MathEd Forum: (Re)imagining the M in STEM
- 2021 Borwein, N., & Doolittle, E. Indigenous Mathematics. Keynote speakers at the Indigenising University Mathematics 2021 conference, University of Newcastle, Australia [carmamaths.org/meetings/ium/video/Theme 4 - Edward and Naomi.mp4](https://carmamaths.org/meetings/ium/video/Theme 4 - Edward and Naomi.mp4)
- 2020 Doolittle, E. Online presentation on Indigenous mathematics for Teachers for the Federation of Sovereign Indigenous Nations (FSIN), Saskatchewan
- 2020 Doolittle, E. Online presentation for Langara College on Indigenizing math education at the post-secondary level
- 2019 Doolittle, E. & Russell, G. Mathematics as a Tool for Colonization, keynote presentation at Provoking Curriculum, Faculty of Education, University of Regina
- 2019 Doolittle, E. & Nolan, K. Initiating and Nurturing Collaborations Between Mathematicians and Mathematics Educators, panel presentation at the Canadian Mathematics Education Study Group annual meeting
- 2019 Doolittle, E. Word Puzzles in Indigenous Languages, presentation at the Canadian Mathematical Society summer meeting
- 2019 Doolittle, E. Mathematics of Indigenous Games, a talk for high school students at Campbell Collegiate high school in Regina
- 2019 Doolittle, E. MATH 101 for Indigenous Students, presentation at the Canadian Mathematical Society winter meeting
- 2019 Leung, F-S., Doolittle, E., Zazkis, R., & Marken, K. Looking In, panel presentation at Innovations in New Instructor Training, Banff International Research Station workshop 19w2231 [www.birs.ca/events/2019/2-day-workshops/19w2231/videos/watch/201906220942-Doolittle.html](https://www.birs.ca/events/2019/2-day-workshops/19w2231/videos/watch/201906220942-Doolittle.html)

- 2018 Doolittle, E. Off the Grid, keynote presentation at Living Mathematics in Our Communities, the 8th Aboriginal Mathematics Symposium at the First Nations Longhouse, University of British Columbia
- 2018 Bazzul, J., Doolittle, E., Omeasoo, D., & Russell, G. Exploring Indigenous Spiritualities In-Relation: How Might Science and Math Education Become Different? Panel at the Canadian Society for the Study of Education conference
- 2018 Doolittle, E. What is Indigenous Mathematics? Weweni Lecture, University of Winnipeg  
[www.uwinnipeg.ca/indigenous/weweni/weweni-2018/what-is-indigenous-mathematics.html](http://www.uwinnipeg.ca/indigenous/weweni/weweni-2018/what-is-indigenous-mathematics.html)
- 2017 Doolittle, E. Harmonics, Nodal Lines, and Acoustic Levitation, keynote presentation at the Treaty 4 Math Fair in Fort Qu'appelle, Saskatchewan
- 2017 Doolittle, E. Transformations, Symmetry, and the Starblanket, a talk for Grade 9 students at Campbell Collegiate high school in Regina
- 2016 Doolittle, E. From String Figures to the Fields Medal at the 6th Aboriginal Students in Math and Science Workshop for Indigenous high school students at Simon Fraser University
- 2016 Doolittle, E. An Exploration of the Fibonacci Sequence at Discover Your Direction, an event to encourage Indigenous grade 10 students to attend university
- 2016 Doolittle, E. Indigenous String Figures for the Science Showcase Series, First Nations University
- 2015 CBC & Doolittle, E. "Residential Schools Robbed Edward Doolittle of the Mohawk Language. Then He Reclaimed It." CBC Radio, June 4, 2015. [tinyurl.com/www-cbc-ca-radio-asithappens](http://tinyurl.com/www-cbc-ca-radio-asithappens)
- 2015 Doolittle, E. The Development of a Plains Cree Pangrammatic Autogram at STEMfest, an international conference, in Saskatoon
- 2015 Doolittle, E. Indigenous Students of Mathematics, invited talk at the National Meeting of Canadian Math Department Chairs
- 2014 Doolittle, E. Cree Syllabic Crosswords, FNUUniv Endangered Alphabets conference
- 2014 Doolittle, E. Indigenous Math Education, University of Regina/High School Transitions Committee Joint Professional Development conference
- 2014 Doolittle, E. Native American Mathematics, Louise and Richard K. Guy Lecture, University of Calgary  
[mathtube.org/lecture/video/native-american-mathematics](http://mathtube.org/lecture/video/native-american-mathematics)
- 2014 Doolittle, E. Indigenous Mathematics, Invited keynote address at the Ontario Institute for Studies in Education conference N'gwii Kendaasmin (We'll Learn Together): Drawing on Indigenous Knowledges to Transform Teaching and Learning in Mathematics and Science
- 2014 Doolittle, E. Indigenous Mathematics, Invited talk for Indigenous Math and Science conference at the University of Manitoba
- 2013 Doolittle, E. Mathematics of Planet Earth: Graph Theory of the Food Chain for the Science Camp for Aboriginal Youth, First Nations University
- 2013 Doolittle, E. Word Puzzles in Cree at the fourth annual Math and Science for Aboriginal Students conference at Simon Fraser University
- 2013 Doolittle, E. Manipulatives in High School Math Education series of workshops for the Yorkton Tribal Council
- 2012 Doolittle, E. Graph Theory in an Indigenous Context, in First Nations Math Education, Banff International Research Station workshop 12w5076  
[www.birs.ca/events/2012/5-day-workshops/12w5076/videos/watch/201211210914-Doolittle.html](http://www.birs.ca/events/2012/5-day-workshops/12w5076/videos/watch/201211210914-Doolittle.html)
- 2012 Doolittle, E. Seeing Sounds, Science Camp for Aboriginal Youth, First Nations University
- 2011 Doolittle, E. Mazes and Explorobots for the Science Camp for Aboriginal Youth, First Nations University
- 2010 Doolittle, E. Aboriginal Perspectives in the Saskatchewan Mathematics Curriculum, Emerging Professionalism Conference, Faculty of Education, University of Regina
- 2009 Doolittle, E. Music and Signal Processing, presentation to Aboriginal K-12 students at the Kehewin Education Institute
- 2009 Doolittle, E. Teaching Aboriginal Perspectives in High School Mathematics at the Sun Country School District Professional Development Conference
- 2005 Doolittle, E. Building Community through Science Curriculum Actualization, Awasis Conference (organized by the Saskatchewan Teachers' Federation)

- 2002 [Doolittle, E.](#) Knots in Aboriginal Mathematics Education, Guest lecture for the Aboriginal Teacher Education Program, Queen's University
- 1998 [Doolittle, E.](#) Issues in the Mathematics Education of Aboriginal Students, Engineering Explorations Concordia University
- 1998 [Doolittle, E.](#) Seeing Sounds, Blueprint for the Future, National Aboriginal Achievement Foundation
- 1998 [Doolittle, E.](#) Graduation Address, Grand River Post-Secondary Education student recognition dinner
- 1997 [Doolittle, E.](#) Experiences of Indigenous Students, Native Science Dialogue, University of Toronto
- 1997 [Doolittle, E.](#) Mathematics as a Spiritual Endeavour, Aboriginal Youth Career Symposium
- 1996 [Doolittle, E.](#) Introduction of Hopi filmmaker Victor Masayesva Jr., Editing Aboriginal Oral Texts: the thirty-second annual Conference on Editorial Problems, University of Toronto [coillink.org/20.500.12592/xdq1t6](https://coillink.org/20.500.12592/xdq1t6)
- 1995 [Doolittle, E.](#) Native Mathematics, Native Issues Seminar, First Nations House, University of Toronto
- 1995 [Doolittle, E.](#) Native Mathematics Education, Native Science Teachers Camp, University of Toronto

## Selected Teaching Experience

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- 2020–on **Professor**, MATH 110 (Calculus I) remote modality (online, synchronous), First Nations University of Canada
- 2020–on **Mentor**, Putnam Competition Training, University of Regina
- 2023 **Sessional Lecturer**, EDPJ/EDJI 1100 (Mathematics Education for Primary/Junior/Intermediate) for the Waaban Indigenous Education Program at York University
- 2013–2014 **Professor**, AMTH 001/091/092 (Adult Mathematics) for community-based access programs in Onion Lake and Piapot First Nations, First Nations University
- 2012 **Professor**, MATH 101 for the community-based Aboriginal Teacher Education Program (Fort Qu'appelle), First Nations University
- 2018 **Professor**, EMTH 215 (Elementary Mathematics Education), Department of Indigenous Education, First Nations University
- 2001 **Instructor**, Leadership and Management, Grand River Polytechnic, Six Nations
- 2000 **Lecturer**, Native Studies, Faculty of Environmental Studies, York University
- 1999–2001 **Lecturer**, ABS201Y (Aboriginal Studies), Faculty of Arts and Science, University of Toronto
- 1998–1999 **Instructor**, Elementary Mathematics Education, Aboriginal Teacher Education Program, Faculty of Education, Queen's University
- 1999 **Instructor**, Business Math, First Nation Management Training and Confederation College, Sioux Lookout
- 1997–1998 **Lecturer**, MAT 188F/196F (Linear Algebra/Calculus), Faculty of Engineering, University of Toronto
- 1997 **Lecturer**, MAT135Y (Calculus I), Faculty of Arts and Science, University of Toronto
- 1996 **Lecturer**, MAT186F (Calculus IB), Faculty of Engineering, University of Toronto
- 1992–1994 **Academic Counselor**, First Nations House, University of Toronto
- 1986–1996 **Teaching Assistant**, Department of Mathematics, University of Toronto

## Selected Community Service

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- 2023–2025 **Member**, Academic Performance Review Committee, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)
- 2023–2024 **Member**, Local Organizing Committee, 2024 Turtle Island Indigenous Science Conference, University of Regina and First Nations University of Canada  
[event.fourwaves.com/2024tiisc/pages/8c2de33c-254b-4cc1-a379-dfc8e2621e19](https://event.fourwaves.com/2024tiisc/pages/8c2de33c-254b-4cc1-a379-dfc8e2621e19)
- 2022–2024 **Executive Member**, Canadian Mathematics Education Study Group [www.cmesg.org](http://www.cmesg.org)
- 2021–on **Member**, Canada Jay Mathematical Competition committee, Canadian Mathematical Society  
[cms.math.ca/competitions/cjmc/](https://cms.math.ca/competitions/cjmc/)
- 2020–2027 **Member**, Mathematics and Reconciliation Committee, Canadian Mathematical Society  
[cms.math.ca/about-the-cms/governance/committees/#rmc](https://cms.math.ca/about-the-cms/governance/committees/#rmc)
- 2019–on **Member**, Bargaining Team, First Nations University of Canada Academic Bargaining Unit, University of Regina Faculty Association [www.urfa.ca](http://www.urfa.ca)



2015–on **Member**, Pension and Benefits Committee, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)

2018 **Judge**, Yakutia International Science Fair in Yakutsk, Russia [ysf.lensky-kray.ru/en/](http://ysf.lensky-kray.ru/en/)

2018–2022 **Mentor**, Verna J. Kirkness Foundation program [www.vernakirkness.org](http://www.vernakirkness.org)

2017–on **Judge**, and **Chair of a Judging Group**, Canada Wide Science Fair [cwsf-espc.ca](http://cwsf-espc.ca)

2017 **Judge**, File Hills Qu'appelle Tribal Council Science Fair

2017 **Judge**, Treaty 4 Math Fair

2015–2017 **Secretary/Treasurer**, Native Heritage Foundation of Canada

2013–2014 **Chair**, First Nations Environmental Contaminants Program (FNECP) Selection Committee  
[www.sac-isc.gc.ca/eng/1583779185601/1583779243216](http://www.sac-isc.gc.ca/eng/1583779185601/1583779243216)

2010 **Tax Policy Consultant**, Chiefs of Ontario [chiefs-of-ontario.org](http://chiefs-of-ontario.org)

2010 **Member**, Academic Reform Task Force, First Nations University of Canada [www.fnuniv.ca](http://www.fnuniv.ca)

2010 **Webmaster**, *Fund First Nations University Now!* blog [fnuniv.wordpress.com](http://fnuniv.wordpress.com)

2007 **Mentor**, Canada's International Math Olympiad team [www.birs.ca/events/2007/summer-schools/07ss005](http://www.birs.ca/events/2007/summer-schools/07ss005)

2006–2008 **Member**, Canadian Mathematical Olympiad committee [cms.math.ca/competitions/cmo/](http://cms.math.ca/competitions/cmo/)

2003–2005 **Member**, President's International Alumni Council, University of Toronto [www.utoronto.ca](http://www.utoronto.ca)

1999–2002 **Member**, National Aboriginal Achievement Foundation Postsecondary Awards Jury

1996–1997 **Graduate Student Representative**, Aboriginal Advisory Council, University of Toronto [www.utoronto.ca](http://www.utoronto.ca)

1991–1992 **Member**, Presidential Advisory Committee on Race Relations and Anti-Racism Initiatives, University of Toronto [www.utoronto.ca](http://www.utoronto.ca)