
Curriculum Vitae of Stavros Konstantinidis

February 2024

Abbreviations

SMU = Saint Mary's University, Halifax, Nova Scotia, Canada

UoL = University of Lethbridge, Lethbridge, Alberta, Canada

UWO = Western University, London, Ontario, Canada

UAthens = University of Athens (National and Kapodistrian)

1 Contact and Identification Information

Office address: Department of Mathematics and Computing Science
Saint Mary's University
923 Robie Str, Halifax, Nova Scotia, B3H 3C3, Canada

e-mail: s.konstantinidis@smu.ca, stavros.konstantinidis@gmail.com

URL address: <http://cs.smu.ca/~stavros/>

ORCID iD: 0000-0002-6628-067X

2 Post-Secondary Education

- Ph.D., Computer Science, UWO, (Sep. 1992 – Mar. 1996).
Title: Error Correction and Decodability. *Advisor:* Prof. Dr. Helmut Jürgensen.
- M.Sc., Computer Science, UWO, (Sep. 1990 – May 1992).
Title: Sampling for Triangulation. *Advisor:* Prof. Dr. Helmut Jürgensen.
- B.Sc., Mathematics, University of Athens, (Sep. 1984 – Aug. 1988).

3 Professional Experience

- *Professor:* Department of Mathematics and Computing Science, SMU (Sep. 2009 – present).
- *Computing Science Co-ordinator:* Department of Mathematics and Computing Science, SMU: (Sep. 2005 – Aug. 2007) and (Jan. 2012 – May 2012) and (Jan. 2020 – Jun. 2020) and (Jun. 2023 – present)
- *Chairperson:* Department of Mathematics and Computing Science, SMU (Sep. 2007 – Aug. 2010).
- *Associate Professor:* Department of Mathematics and Computing Science, SMU (Sep. 2001 – Aug. 2009).
- *Assistant Professor:* Department of Mathematics and Computing Science, SMU (Aug. 1998 – Aug. 2001).

- *Assistant Professor*: Department of Mathematics and Computer Science, UoL (Aug. 1996 – Jun. 1998).
- *Sessional Lecturer*: Department of Computer Science, UWO (Spring 1996 and Fall 1994).
- *Teaching Assistant*: Department of Computer Science, UWO (Sep. 1991 – Apr. 1996).
- *Research Assistant*: Department of Computer Science, UWO (Sep. 1990 – Aug. 1991).
- *Software Designer and Implementer*: Business Reconstruction Organization, Athens (Dec. 1988 – Mar. 1989).
- *Private Tutor in Mathematics*: Athens (Sep. 86 – Apr. 89).

4 Honours and Awards

- Best paper award, 46th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM'20), January 20-24, 2020, Limassol, Cyprus.
- National committee chair: “Research Tools and Instruments Review Committee”, Section of Computer Science, Statistics and Mathematics, NSERC, Sep. 2014 – Jan. 2015.
- National committee chair: “Theoretical Computer Science” Section of the NSERC Computer Science Evaluation Group (EG 1507), Discovery Grants, Jun. 2010 – Mar. 2011.
Also, national committee member: NSERC Computing and Information Sciences Grant Selection Committee (GSC 331)¹, Aug. 2008 – Feb. 2011.
- Best paper award, 9th International Conference on the Implementation and Application of Automata (CIAA'04), July 22-24, 2004, Kingston, Ontario, Canada.
- Best paper score, 10th International Meeting on DNA-based computers (DNA 10), June 7-10, 2004, Milano, Italy.
- Nominated for the Governor General’s Gold Medal Award by the Department of Computer Science, UWO (Apr. 1996).
- Ontario Differential Fee Waiver, UWO (Sep. 1992 – Feb. 1994) and (May 1990 – May 1992).

5 Research/Scholarship

*Note: As customary in my field, names of co-authors of a publication appear in alphabetical order – with one or two exceptions. In the lists of my research contributions, names of co-authors whom I supervised are shown in **bold** font.*

5.1 Papers in refereed journals

44. Stavros Konstantinidis, António Machiavelo, Nelma Moreira, Rogério Reis: On the average complexity of partial derivative transducers. *Theoretical Computer Science* 956: 113830 (2023).

¹Renamed later as NSERC Computer Science Evaluation Group (EG 1507).

43. Stavros Konstantinidis, Mitja Mastnak, Nelma Moreira, Rogério Reis: Approximate NFA universality and related problems motivated by information theory. *Theoretical Computer Science* 972: 114076 ([2023](#)).
42. Stavros Konstantinidis, António Machiavelo, Nelma Moreira, Rogério Reis: On the size of partial derivatives and the word membership problem. *Acta Informatica* 58(4): 357-375 ([2021](#)).
41. Stavros Konstantinidis, Mitja Mastnak, **Juraj Šebej**: Zero-Avoiding Transducers, Length Separable Relations, and the Rational Asymmetric Partition Problem. *International Journal of Foundations of Computer Science* 32(5): 455-480 ([2021](#)).
40. Stavros Konstantinidis, Nelma Moreira, Rogério Reis: Partial derivatives of regular expressions over alphabet-invariant and user-defined labels. *Theoretical Computer Science* 870: 103–120 ([2021](#)).
39. Stavros Konstantinidis, Nelma Moreira, Rogério Reis, Joshua Young: Regular Expressions and Transducers Over Alphabet-Invariant and User-Defined Labels. *International Journal of Foundations of Computer Science* 31(8): 983–1019 ([2020](#)).
38. Stavros Konstantinidis: Every Regular Bifix Code is a Finite Union of Regular Infix Codes. *Journal of Automata, Languages and Combinatorics*, 25:1 55–59 ([2020](#)).
37. Lila Kari, Stavros Konstantinidis, **Steffen Kopecki**, **Meng Yang**: Efficient Algorithms for Computing the Inner Edit Distance of a Regular Language via Transducers. *Algorithms*, 11:11 165 (18 pages) ([2018](#)).
36. L. Kari, S. Konstantinidis, **S. Kopecki**: Transducer Descriptions of DNA Code Properties and Undecidability of Antimorphic Problems. *Information and Computation*, 259:2 237–258 ([2018](#)).
35. Stavros Konstantinidis, Nelma Moreira, Rogério Reis: Randomized generation of error control codes with automata and transducers. *RAIRO - Theor. Inf. and Applic.*, 52:2-3-4 169–184 ([2018](#)).
34. Stavros Konstantinidis, **Casey Meijer**, Nelma Moreira, Rogério Reis: Symbolic Manipulation of Code Properties. *Journal of Automata, Languages and Combinatorics*, 23:1-3 243–269 ([2018](#)).
33. S. Konstantinidis, M. Mastnak: Embedding Rationally Independent Languages into Maximal Ones. *Journal of Automata, Languages and Combinatorics*, 21:4, 311-338 ([2016](#)).
32. R. Karamichalis, L. Kari, S. Konstantinidis, **S. Kopecki**, S. Solis-Reyes: (2016). Additive Methods for Genomic Signatures. *BMC Bioinformatics*, 17:313, 18 pages ([2016](#)).
31. R. Karamichalis, L. Kari, S. Konstantinidis, **S. Kopecki**: (2015). An investigation into inter- and intragenomic variations of graphic genomic signatures. *BMC Bioinformatics* 16:246, 22 pages ([2015](#)).
30. L. Kari, S. Konstantinidis, **S. Kopecki**: On the maximality of languages with combined types of code properties. *Theoretical Computer Science* 550, 79–89 ([2014](#)).

29. S. Konstantinidis, **N. Sântean**: Computing maximal Kleene closures that are embeddable in a given constrained DNA language². *Natural Computing* 12:2, 211–222 ([2013](#)).
28. **K. Dudzinski**, S. Konstantinidis: Formal descriptions of code properties: decidability, complexity, implementation. *International Journal of Foundations of Computer Science* 23:1, 67–85 ([2012](#)).
27. S. Konstantinidis, **J. Young**: f -Words and binary solid codes. *Journal of Automata, Languages and Combinatorics* 15:3/4, 269–283 ([2010](#)).
26. S. Konstantinidis, P. Silva: Computing maximal error-detecting capabilities and distances of regular languages. *Fundamenta Informaticae* 101:4 ([2010](#)), 257–270.
25. S. Konstantinidis, N. Sântean, S. Yu: On implementing recognizable transductions. *Intern. Journal of Computer Mathematics* 87:2 ([2010](#)), 260–277.
24. J. Brzozowski, S. Konstantinidis: State-complexity hierarchies of uniform languages of alphabet-size length. *Theoretical Computer Science* 410:35 ([2009](#)), 3223–3235.
23. S. Konstantinidis, N. Sântean: On the Definition of Stochastic λ -Transducers. *Intern. Journal of Computer Mathematics* 86:8 ([2009](#)), 1300–1310.
22. C. Câmpeanu, S. Konstantinidis: State Complexity of the Subword Closure Operation with Applications to DNA Coding. *International Journal of Foundations of Computer Science* 19:5 ([2008](#)), 1099–1112.
21. S. Konstantinidis, P. Silva: Maximal Error-detecting Capabilities of Formal Languages. *Journal of Automata, Languages and Combinatorics* 13:1 ([2008](#)), 55–71.
20. S. Konstantinidis: Computing the Edit Distance of a Regular Language. *Information and Computation* 205 ([2007](#)), 1307–1316.
19. S. Konstantinidis, N. Sântean and S. Yu: Fuzzification of Rational and Recognizable Sets. *Fundamenta Informaticae* 76.4 ([2007](#)), 413–447.
18. S. Konstantinidis, N. Sântean and S. Yu: Representation and Uniformization of Algebraic Transductions. *Acta Informatica* 43.6 ([2007](#)), 395–417.
17. H. Jürgensen, S. Konstantinidis: (Near-)Inverses of Sequences. *Intern. Journal of Computer Mathematics* 83:2 ([2006](#)), 203–222.
16. L. Kari, E. Losseva, S. Konstantinidis, P. Sosík, G. Thierrin: A Formal Language Analysis of DNA Hairpin Structures. *Fundamenta Informaticae* 71 ([2006](#)), 453–475.
15. L. Kari, S. Konstantinidis, P. Sosík: Bond-free Languages: Formalizations, Maximality and Construction Methods. *International Journal of Foundations of Computer Science* 16 ([2005](#)), 1039–1070.
14. L. Kari, S. Konstantinidis, P. Sosík: Operations on Trajectories with Applications to Coding and Bioinformatics. *International Journal of Foundations of Computer Science* 16 ([2005](#)), 531–546.

²One of the five papers selected for journal publication from the proceedings of DNA 17, which took place in Caltech, Pasadena, California, Sept. 2011.

13. L. Kari, S. Konstantinidis, P. Sosík: On properties of bond-free DNA languages. *Theoretical Computer Science* 334 (2005), 131–159.
12. L. Kari, S. Konstantinidis: Language Equations, Maximality and Error-detection. *Journal of Computer and System Sciences* 70 (2005), 157–178.
11. L. Kari, S. Konstantinidis: Descriptive Complexity of Error/Edit Systems. *Journal of Automata, Languages and Combinatorics* 9 (2004), 293–309.
10. H. Jürgensen, S. Konstantinidis, N. H. Lãm: Asymptotically optimal low-cost solid codes. *Journal of Automata, Languages and Combinatorics* 9:1 (2004), 81–102.
9. S. Konstantinidis, **S. Perron**, **L. A. Wilcox-O’Hearn**: On a Simple Method for Detecting Synchronization Errors in Coded Messages. *IEEE Transactions on Information Theory* 49 (2003), 1355–1363.
8. L. Kari, S. Konstantinidis, E. Losseva, G. Wozniak: Sticky-Free and Overhang-Free DNA Languages. *Acta Informatica* 40 (2003), 119–157.
7. **S. Hussini**, L. Kari, S. Konstantinidis: Coding Properties of DNA Languages. *Theoretical Computer Science* 290 (2003), 1557–1579.
6. S. Konstantinidis, **A. O’Hearn**: Error-Detecting Properties of Languages. *Theoretical Computer Science* 276 (2002), 355–375.
5. S. Konstantinidis: Transducers and the Properties of Error-Detection, Error-Correction and Finite-Delay Decodability. *Journal Of Universal Computer Science* 8 (2002), 278–291.
4. S. Konstantinidis: Relationships between Different Error-Correcting Capabilities of a Code. *IEEE Transactions on Information Theory* 47 (2001), 2065–2069.
3. S. Konstantinidis: An Algebra of Discrete Channels that Involve Combinations of Three Basic Error Types. *Information and Computation* 167 (2001), 120–131.
2. H. Jürgensen, M. Katsura, S. Konstantinidis: Maximal Solid Codes. *Journal of Automata, Languages and Combinatorics* 6 (2001), 25–50.
1. S. Konstantinidis: Structural Analysis of Error-Correcting Codes for Discrete Channels that Involve Combinations of Three Basic Error Types. *IEEE Transactions on Information Theory* 45 (1999), 60–77.

5.2 Papers in proceedings of refereed conferences

28. Stavros Konstantinidis, Mitja Mastnak, Nelma Moreira, Rogério Reis: Approximate NFA Universality Motivated by Information Theory. In: Yo-Sub Han, Gyrgy Vaszil (eds.): Descriptive Complexity of Formal Systems - 24th IFIP WG 1.02 International Conference, DCFS 2022, Debrecen, Hungary, August 29-31, 2022, Proceedings. LNCS 13439, pp. 142–154, Springer.
27. Stavros Konstantinidis, António Machiavelo, Nelma Moreira, Rogério Reis: Partial Derivative Automaton by Compressing Regular Expressions. In: Yo-Sub Han, Sang-Ki Ko (eds.): Descriptive Complexity of Formal Systems - 23rd IFIP WG 1.02 International Conference, DCFS 2021, Virtual Event, September 5, 2021, Proceedings. LNCS 13037, pp. 100–112, Springer.

26. Stavros Konstantinidis: Theoretical and Implementational Aspects of the Formal Language Server (LaSer). In: Marcella Anselmo, Gianluca Della Vedova, Florin Manea, Arno Pauly (eds.): *Beyond the Horizon of Computability - 16th Conference on Computability in Europe, CiE 2020*, Fisciano, Italy, June 29 - July 3, 2020, Proceedings. LNCS 12098 ([2020](#)), pp. 289–295, Springer.
25. Stavros Konstantinidis, António Machiavelo, Nelma Moreira, Rogério Reis: On the Average State Complexity of Partial Derivative Transducers. In: Alexander Chatzigeorgiou, Riccardo Dondi, Herodotos Herodotou, Christos A. Kapoutsis, Yannis Manolopoulos, George A. Papadopoulos and Florian Sikora (eds.): *Proceedings of the 46th International Conference on Current Trends in Theory and Practice of Informatics, SOFSEM 2020*, Limassol, Cyprus, January 20-24, 2020. LNCS 12011 ([2020](#)), pp. 174–186, Springer.
24. Stavros Konstantinidis, Mitja Mastnak, Juraj Šebej: Partitioning a Symmetric Rational Relation into Two Asymmetric Rational Relations. In Michal Hospodár and Galina Jirásková (eds.): *Proceedings of the 24th CIAA*, Košice, Slovakia, July 22-25, 2019. LNCS 11601 ([2019](#)), pp. 171–183, Springer.
23. Stavros Konstantinidis, Nelma Moreira, João Pires, Rogério Reis: Partial Derivatives of Regular Expressions over Alphabet-Invariant and User-Defined Labels. In Michal Hospodár and Galina Jirásková (eds.): *Proceedings of the 24th CIAA*, Košice, Slovakia, July 22-25, 2019. LNCS 11601 ([2019](#)), pp. 184–196, Springer.
22. Stavros Konstantinidis, Nelma Moreira, Rogério Reis, **Joshua Young**: Regular Expressions and Transducers over Alphabet-Invariant and User-Defined Labels. In Cezar Câmpeanu (ed.): *Proceedings of 23rd CIAA*, Charlottetown, PE, Canada, July 30 - August 2, 2018. LNCS 10977 ([2018](#)), pp. 4–27, Springer.
21. Stavros Konstantinidis: Applications of Transducers in Independent Languages, Word Distances, Codes. In Giovanni Pighizzini and Cezar Câmpeanu (eds.): *Proceedings of 19th IFIP WG 1.02 DCFS*, Milano, Italy, July 3-5, 2017. LNCS 10316 ([2017](#)) pp. 45–62, Springer.
20. Stavros Konstantinidis, Nelma Moreira, Rogério Reis: Generating Error Control Codes with Automata and Transducers. In H. Bordihn, R. Freund, B. Nagy, G. Vaszil (eds.): *Proceedings of the 8th NCMA*, Debrecen, Hungary, Aug, 29-30, 2016. *Osterreichische Computer Gesellschaft (OCG)*, vol. 321 ([2016](#)), pp. 211-226.
19. S. Konstantinidis, **C. Meijer**, N. Moreira, R. Reis: Implementation of Code Properties via Transducers. In Y.-S. Han, K. Salomaa (eds.): *Proceedings of the 21st CIAA*, Seoul, Republic of Korea, July 19–22, 2016. LNCS, vol. 9705 ([2016](#)), pp. 189201, Springer.
18. L. Kari, S. Konstantinidis, **S. Kopecki**. Transducer Descriptions of DNA Code Properties and Undecidability of Antimorphic Problems. In J. Shallit and A. Okhotin: *17th DCFS*, Waterloo, Ont., Canada, June 25-27, 2015. LNCS, vol. 9118 ([2015](#)), pp. 141–152, Springer.
17. S. Konstantinidis, **J. Young**: Deciding the density type of a given regular language. In J. Holub and J. Zdarek (eds): *Proceedings of the Prague Stringology Conference*, September 2013, pp. 21–34.
16. S. Konstantinidis, **N. Sântean**: Computing maximal Kleene closures that are embeddable in a given constrained DNA language. In: *Proceedings of “17th International Conference*

- on DNA Computing and Molecular Programming, California Institute of Technology, Sep. 19-23, 2011". Lecture Notes in Computer Science 6937 (2011), pp 115–129.
15. J. Brzozowski, S. Konstantinidis: State-Complexity Hierarchies of Uniform Languages of Alphabet-Size Length. In: Proceedings of "10th International Workshop on Descriptive Complexity of Formal Systems Charlottetown, Canada, July 16-18, 2008, pp 97-108.
 14. **B. Cui**, S. Konstantinidis: DNA Coding using the Subword Closure Operation. In: Proceedings of "13th DNA Computing Meeting, University of Memphis, June 2007". Lecture Notes in Computer Science 4848 (2008), 284–289, Springer.
 13. S. Konstantinidis: Computing the Levenshtein distance of a regular language. In: Proceedings of "IEEE Information Theory Workshop on Coding and Complexity, Rotorua, New Zealand, Aug. 29 - Sep. 1, 2005," pp 113–116.
 12. L. Kari, S. Konstantinidis, P. Sosik: Hairpin Structures in DNA Words. In: Proceedings of "11th International Meeting on DNA-based computers (DNA 11), London, Canada, June 6-9, 2005." Lecture Notes in Computer Science 3892 (2006), 158–170, Springer.
 11. L. Kari, S. Konstantinidis, P. Sosik, G. Thierrin: On Hairpin-Free Words and Languages. In: Proceedings of "Developments in Language Theory 2005, 9th International Conference, DLT 2005, Palermo, Italy, July 4-8, 2005." Lecture Notes in Computer Science 3572 (2005), 296–307, Springer.
 10. L. Kari, S. Konstantinidis, P. Sosik: Preventing Undesirable Bonds between DNA Codewords. In: Proceedings of "10th International Meeting on DNA-based computers (DNA 10), Milano, Italy, June 7-10, 2004." Lecture Notes in Computer Science 3384 (2005), 182–191, Springer.
 9. L. Kari, S. Konstantinidis, P. Sosik: Bond-free Languages: Formalizations, Maximality and Construction Methods. In: Proceedings of "10th International Meeting on DNA-based computers (DNA 10), Milano, Italy, June 7-10, 2004." Lecture Notes in Computer Science 3384 (2005), 169-181, Springer.
 8. L. Kari, S. Konstantinidis, P. Sosik: Substitutions, Trajectories and Noisy Channels. In: Proceedings of "9th International Conference on the Implementation and Application of Automata (CIAA'04), Kingston, Ontario, July 22-24, 2004." Lecture Notes in Computer Science 3317 (2004), 202–212, Springer.
 7. L. Kari, S. Konstantinidis: Descriptive Complexity of Error/Edit Systems. In: Proceedings of "Descriptive Complexity of Formal Systems, London, Canada, Aug. 2002," pp 133–147.
 6. **S. Hussini**, L. Kari, S. Konstantinidis: Coding Properties of DNA Languages. In: Proceedings of "7th International Workshop on DNA-Based Computers, Tampa, Florida, USA, June 10-13, 2001." Lecture Notes in Computer Science 2340 (2002), 57–69, Springer.
 5. S. Konstantinidis: Error-Detecting Properties of Languages. In: Proceedings of "3rd International Colloquium on Words, Languages & Combinatorics, Kyoto, Japan, 14 - 18 March 2000." World Scientific, 2003, 240–252.
 4. S. Konstantinidis: Relationships between Different Error-Correcting Capabilities of a Code. In: Proceedings of "IEEE Information Theory Workshop, Killarney, Ireland, June 1998," pp 122–123.

3. H. Jürgensen, S. Konstantinidis: Error Correction for Channels with Substitutions, Insertions, and Deletions. In: Proceedings of “4th Canadian Workshop on Information Theory: Information Theory and Applications 2, 1995.” Lecture Notes in Computer Science 1133 (1996), 149–163, Springer.
2. H. Jürgensen, S. Konstantinidis: Variable-length Codes for Error Correction. In: Proceedings of “22nd International Colloquium on Automata, Languages and Programming, Szeged, Hungary, July 1995,” Lecture Notes in Computer Science 944 (1995), 581–592, Springer.
1. H. Jürgensen, S. Konstantinidis: The Hierarchy of Codes. In: “Fundamentals of Computation Theory, 9th International Conference”. Lecture Notes in Computer Science 710 (1993), 50–68, Springer.

5.3 Editor of books, proceedings, journal issues

7. G. Jirásková and S. Konstantinidis: Descriptive Complexity of Formal Systems 2019. *Information and Computation* 284, Special issue [2022](#).
6. M. Hospodár, G. Jirásková and S. Konstantinidis: Descriptive Complexity of Formal Systems, Proceedings of the 21st International Conference, DCFS 2019, Košice, Slovakia, July 17–19. *Lecture Notes in Computer Science* 11612. Springer, Berlin Heidelberg, [2019](#).
5. S. Konstantinidis and G. Pighizzini: Descriptive Complexity of Formal Systems. *Theoretical Computer Science* 798, Special issue. Elsevier [2019](#).
4. S. Konstantinidis and G. Pighizzini: Descriptive Complexity of Formal Systems, Proceedings of the 20th International Conference, DCFS 2018, Halifax, NS, Canada, July 25–27. *Lecture Notes in Computer Science* 10952. Springer, Berlin Heidelberg, [2018](#).
3. S. Konstantinidis, N. Moreira, R. Reis, J. Shallit: The Role of Theory in Computer Science, Essays dedicated to Janusz Brzozowski. World Scientific [2017](#).
2. S. Konstantinidis: Implementation and Application of Automata. *Theoretical Computer Science* 578, Special Issue. Elsevier [2015](#).
1. S. Konstantinidis: Implementation and application of automata, Proceedings of the 18th International Conference, CIAA 2013, Halifax, NS, Canada, July 16–19. *Lecture Notes in Computer Science* 7982. Springer, Berlin Heidelberg, [2013](#).

5.4 Chapters or papers in edited collections

2. L. Kari, S. Konstantinidis, P. Sosík: Substitution on Trajectories. In J. Karhumäki, H. Maurer, G. Paun, G. Rozenberg (eds): Theory is Forever: Essays dedicated to Arto Salomaa on the occasion of his 70th birthday. Lecture Notes in Computer Science 3113, 145–158. Springer, Heidelberg, 2013.
1. H. Jürgensen, S. Konstantinidis: Codes. In G. Rozenberg, A. Salomaa (eds): Handbook of Formal Languages, vol. I, 511–607. Springer-Verlag, Berlin, 1997.

5.5 Invited talks

- Jul. 2020: Computability in Europe (CIAA 2020), Salerno, Italy. Title: Stavros Konstantinidis (2020). Theoretical and Implementational Aspects of the Formal Language Server (LaSer) – see Subsection 5.2[26].
- Jul. 2018: Conference on the Implementation and Application of Automata (CIAA 2018), University of PEI, PEI, Canada. Title: Regular Expressions and Transducers over Alphabet-Invariant and User-Defined Labels – see Subsection 5.2[22].
- Jul. 2017: Descriptive Complexity of Formal Systems (DCFS 2017), University of Milano. Title: On formal descriptions of code properties – see Subsection 5.2[21].
- Jul. 2012: Western University, London, Ontario. Title: I-LaSer: Independent Language Server.
- Jul. 2010: Descriptive Complexity of Formal Systems (DCFS 2010), University of Saskatchewan. Title: On formal descriptions of code properties – see Subsection 5.6[11].
- Sep. 2007: Weekly Seminar Series, Jodrey School of Computer Science, Acadia University. Title: Computing distances and error detecting capabilities of regular languages.
- Jun. 2007: Technical talk of the day for the retirement ceremony of Prof. Dr. H. Jürgensen, Dept. Informatics, University of Potsdam, Germany, (June 26, 2007). Title: Overview of solid codes.
- Sep. 2006: Session on Semigroups and Languages, Tomar, Portugal – see Subsection 5.6[9]
- Aug. 2006: Algorithms and Complexity Group, Computer Science department, University of Waterloo. Title: Computing distances and error detecting capabilities of regular languages.
- Sep. 2003: Session on Communication Theory, Coding Theory and Molecular Biology (IEEE), Cancun, Mexico – see Subsection 5.6[6].
- Feb. 2002: Preparatory Meeting on General Theory of Information Transfer, Bielefeld, Germany – see Subsection 5.6[4]. I received a second invitation to continue my participation in this project in the summer of 2003. Unfortunately, this opportunity did not materialize due to my wife’s illness.
- Dec. 2001: Seminar Series, department of Mathematics, Acadia University, Canada. Title: Formal Languages and Coding Theory.
- Feb. 2001: Seminar Series, School of Computing, Queen’s University, Canada. Title: Coding properties of DNA languages.

5.6 Other papers, abstracts, or presentations in conferences (non-refereed or semi-refereed)

14. Stavros Konstantinidis: Report on DCFS 2017. Bulletin of the EATCS 123 [2017](#).
13. S. Konstantinidis, **C. Meijer**: I-LaSer: Independent Language Server. In: Software demo session, 18th International Conference on the Implementation and Application of Automata (CIAA), Halifax, Canada, July 16-19, 2013. Newer version of the software presented in CIAA 2012.

12. S. Konstantinidis, **M. Yang**: I-LaSer: Independent Language Server. In: Software demo session, 17th International Conference on the Implementation and Application of Automata (CIAA), Porto, Portugal, July 17-20, 2012.
11. **K. Dudzinski**, S. Konstantinidis: On formal descriptions of code properties. Invited talk at the 2010 Descriptive Complexity of Formal Systems, University of Saskatchewan, July 2010, Saskatoon, Canada.
10. C. Câmpeanu, S. Konstantinidis: On the State Complexity of the Subword Closure Operation. Presented at the 3rd ATINER International Conference on Computer Science and Information Systems, 23-24 July 2007, Athens, Greece.
9. S. Konstantinidis: Maximal error-detecting capabilities of formal languages. In: Proceedings of SCRA 2006 - FIM XIII, Tomar, Portugal, Sep. 1-4, 2006, pg 61 (abstract). Invited lecture in the session on Semigroups and Languages.
8. S. Konstantinidis: What is a maximal error detecting capability of a formal language? In: Proceedings of "10th WSEAS International Conference on Computers, Vouliagmeni, Greece, July 13-15, 2006." WSEAS Transactions on Mathematics 5 (2006), pp 1015–1020.
7. L. Kari, S. Konstantinidis, **S. Perron**, G. Wozniak, **J. Xu**: Computing the Hamming Distance of a Regular Language in Quadratic Time. In: Proceedings of "8th WSEAS International Conference on Computers, Vouliagmeni, Greece, July 12-15, 2004." WSEAS Transactions on Information Science & Applications 1 (2004), pp 445–449. Also presented in: Halifax Graph Theory Day, SMU, June 16, 2004.
6. L. Kari, S. Konstantinidis: Static and Dynamic Properties of DNA Languages. In: Proceedings of "25th IEEE International Conference of the Engineering in Medicine and Biology Society, Cancun, Mexico, Sep. 2003," pp 3846–3849. Invited lecture in the session on Communication Theory, Coding Theory and Molecular Biology.
5. S. Konstantinidis: Some Remarks on Regular Factorizations. In: Proceedings of "6th WSEAS International Conference on Computers, Rethymnon, Greece, Jul. 2002." WSEAS Transactions on Communications 1 (2002), pp 167–172.
4. S. Konstantinidis: General Models of Discrete Channels and the Properties of Error-Detection and Error-Correction. In: General Theory of Information Transfer (preparatory meeting), University of Bielefeld, Germany, Feb. 2002. Invited.
3. S. Konstantinidis, **L. A. O’Hearn**: Error-Detection with Finite Delay. In: Workshop on Codes and Related Structures, London, Canada, 31 Jul 2000.
2. H. Jürgensen, M. Katsura, S. Konstantinidis: Maximal Solid Codes. In: 9th International Conference on Automata and Formal Languages, Vasszecsény, Hungary, Aug. 1999.
1. H. Jürgensen, S. Konstantinidis: Synchronization in the Presence of Noise. In: DIMACS Workshop on Codes and Trees: Algorithmic and Information Theoretic Approaches, Rutgers University, Oct. 1998.

5.7 Other non-refereed publications

3. L. Kari, S. Konstantinidis, **S. Kopecki**, **M. Yang**: An efficient algorithm for computing the edit distance of a regular language via input-altering transducers. CoRR abs/1406.1041 (2014).
2. L. Kari, S. Konstantinidis, **S. Perron**, G. Wozniak, **J. Xu**: Finite-state error/edit-systems and difference-measures for languages and words. Technical report 2003-01, Department of Mathematics and Computing Science, Saint Mary's University, Canada.
1. I have published several other Technical Reports in various Universities (Western Ontario, Lethbridge, SMU, Potsdam, Waterloo). I chose not to list them here as they have appeared in other (normally refereed) fora.

5.8 Research Grants

- Apr. 2020 – Mar. 2025. *Representational, Algorithmic and Applied Aspects of Word Relations*: NSERC Discovery Grant (individual). Amount: $5 \times \$23,000 = \$115,000$ (five years).
- Apr. 2017 – Mar. 2019. *Foundational and Computational Aspects of Independent Formal Languages*: NSERC Discovery Development Grant (individual). Amount: $2 \times \$10,000 = \$20,000$ (two years).
- Apr. 2012 – Mar. 2017. *Independent Formal Languages—structure, algorithms, complexity, implementation*: NSERC Discovery Grant (individual). Amount: $5 \times \$27,920 = \$139,600$ (five years).
- Apr. 2007 – Mar. 2012. *Theory and applications of automata and codes*: NSERC Discovery Grant (individual). Amount: $5 \times \$20,000 = \$100,000$ (five years).
- Apr. 2003 – Mar. 2007. *Automata, codes and error models*: NSERC Discovery Grant (individual). Amount: $4 \times \$18,000 = \$72,000$ (four years).
- Mar. 2001 – Feb. 2002. *Reliable DNA Computing*: SMU Senate Research Grant. Amount: \$1,800 (one year).
- Mar. 2000 – Feb. 2001. *Error-Detecting Properties of Languages*: SMU Senate Research Grant. Amount: \$4,000 (one year).
- Jun. 1999. *Multi-Disciplinary High Performance Computing*: CFI Equipment Grant. Project leader: Dr. David Clarke, SMU. Amount: \$185,790.
- Apr. 1999 – Mar. 2003. *Aspects of Decodability and Synchronizability of Codes*: NSERC Research Grant (individual). Amount: $4 \times \$12,600 = \$50,400$ (four years).
- Mar. 1999 – Feb. 2000. *Experimental Analysis of Synchronizable Codes*: SMU Senate Research Grant. Amount: \$3,031 (one year).
- Jan. 1998 – Jun. 1999. *Distance-Based Conditions for Error Correcting Codes and Methods for their Constructions*: University of Lethbridge Research Fund. Amount: \$4,500 (1.5 years).

6 Supervision of HQP

35. *Sep 2021 to May 2023*: Justin Gray, “The Practical Efficiency of Regular Expression Membership Algorithms”. Honours thesis, Dept. Math. & Computing Sci., SMU.
34. *Sep 2020 to May 2021*: Patrick Melanson, “Regular Languages, Property Satisfiability, and Shortcuts”. Honours thesis, Dept. Math. & Computing Sci., SMU.
33. *May 2021 to Aug 2021*: Justin Gray, undergraduate student, “Membership Problem for Rational Sets: Algorithms and Implementation”. Justin was awarded an NSERC Undergraduate Summer Research Award in April of 2021.
32. *Sep 2015 to present*: Mohammad Tarique Abdullah, MSc student.
31. *May 2019 to August 2020*: Margaret Anderson Kilfoil, MCDA student. Interrupted due to the Covid pandemic.
30. *Sep 2018 to Apr 2019*: Matthew Rafuse, “Deciding Rational Property Definitions”. Honours thesis, Dept. Math. & Computing Sci., SMU.
29. *Oct 2017 to Sep 2018*: Juraj Šebej, post doctoral fellow.
28. *May 2017 to Aug 2017*: Matthew Rafuse, undergraduate student, “Adding DNA properties in the SMU formal Language Server”. Matthew was awarded an NSERC Undergraduate Summer Research Award in April of 2017.
27. *May 2016 to Sep 2016*: Abisola Adeniran, graduate projects “Merging BibTex files” and “Adding the Construction Problem in the SMU formal Language Server”.
26. *May 2014 to Apr 2016*: Ben Goodspeed, “Formal Methods for Secure Software Construction”. MSc thesis, Dept. Math. & Computing Sci., SMU.
25. *Apr 2013 to Mar 2015*: Dr Steffen Kopecki, post-doctoral fellow; co-supervised with Dr Lila Kari of Western University, London, Ontario.
24. *May 2012 to Jun 2014*: Casey Meijer, undergraduate student. Made improvements in the SMU formal Language Server, did software demo in CIAA 2013, co-authored a paper with me and colleagues (proceedings of CIAA 2016).
23. *Sep. 2010 to Dec. 2012*: Meng Yang, “Application and Implementation of Transducer Tools in Answering Certain Questions About Regular Languages.” MSc thesis, Dept. Math. & Computing Sci., SMU.
22. *Sep. 2009 to Aug. 2012*: Joshua Young, “A Comparative Study of Automated Reviewer Assignment Methods.” MSc thesis, Dept. Math. & Computing Sci., SMU. Joshua won an NSERC **PGS**.
21. *Aug. 2011 to Dec. 2011*: Dr Micah McCurdy, post-doctoral fellow; co-supervised with Dr Margaret Beattie of Mt Alison and Dr Mitja Mastnak of SMU.
20. *Sep. 2006 to Dec. 2011*: Alifasi Daka, “Computing Error-Detecting Capabilities of Regular Languages” MSc thesis, Dept. Math. & Computing Sci., SMU.

19. *Sep. 2008 to Jun. 2011*: Krystian Dudzinski, “A system for describing and deciding properties of regular languages using input altering transducers.” MSc thesis, Dept. Math. & Computing Sci., SMU.
18. *Jul. 2009 to Dec. 2009*: Dr Nicolae Santean, post-doctoral fellow.
17. *May 2008 to Aug. 2008*: Joshua Young, undergraduate student of the department of Math. & Computing Sci., SMU. Project involving maximal solid codes. Joshua received a “Faculty of Science Research Award” for the summer of 2008 (equivalent to an NSERC USRA).
16. *Sep. 2007 to Oct. 2008*: Juan Rao, worked under my supervision towards her MSc thesis in Applied Science on the implementation of algorithms for deciding various code related properties. Unfortunately she had to withdraw for personal reasons.
15. *Oct. 2005 to Apr. 2007*: Stuart Crosby, top undergraduate student of the department of Math. & Computing Sci., SMU. Assisted in various open problems related to my research on error detection. Although we did not make a breakthrough, Stuart contributed a lot in pointing out directions that are not promising, or could be promising, in attempting to solve these problems.
14. *Sep. 2005 to Aug. 2007*: Bo Cui, “Encoding methods for DNA languages defined via the subword closure operation.” MSc thesis, Dept. Math. & Computing Sci., SMU. See also paper 5.2[14].
13. *Sep. 2001 to Apr. 2004*: Jing Xu, “Formalizations Of Error Models With Applications To Spelling Error Correction.” MSc thesis, Dept. Math. & Computing Sci., SMU. See also papers 5.7[2] and 5.2[7].
12. *May to Nov. 2003*: Sayeed Shafi, undergraduate student of the department of Math. & Computing Sci., SMU. Worked on a project involving databases and web programming.
11. *Feb. 2003 to Jun. 2003*: Stuart Crosby, top undergraduate student of the department of Math. & Computing Sci., SMU. Worked on a project involving the problem of sorting large arrays of numbers.
10. *Sep. 2001 to May 2002*: Salah Houssini, “DNA Computation.” BSc. Honours thesis, Dept. Math. & Computing Sci., SMU.
9. *Sep. 2001 to Mar. 2002*: Steven Perron, worked on a part time basis on error-detection and difference measures for languages and words – see papers 5.7[2] and 5.2[7].
8. *May 2001 to Aug. 2001*: Steven Perron, undergraduate student of Computing Science at SMU. Steven was awarded an NSERC Undergraduate Research Award in April of 2001. Worked on synchronizing patterns for efficient decoding of messages in the presence of errors of various types – see paper 5.1[9].
7. *May 2001 to Aug. 2001*: Abhishek Bothra, undergraduate student of the department of Math. & Computing Sci., SMU. Worked on the dependence of communication protocols on various code properties.
6. *Jul. 2001 to Aug. 2001*: Amber O’Hearn. Continued to work on error-detection – see paper 5.1[9].

5. *Sep. 2000 to Apr. 2001*: Roger Zhang, undergraduate student of the department of Math. & Computing Sci., SMU. Worked on the implementation of algorithms for computing maximal finite codes.
4. *Sep. 2000 to Apr. 2001*: Salah Hussini, undergraduate student of the department of Math. & Computing Sci., SMU, majoring in Biology and Computing Science. Assisted me in understanding biological concepts in connection with errors in DNA computing – see paper 5.1[7].
3. *May 2000 to Aug. 2000*: Amber O’Hearn, undergraduate student of the department of Math. & Computing Sci., SMU. Amber was awarded an NSERC Undergraduate Research Award in April of 2000. Worked on the concept of error-detection – see papers 5.1[6] and 5.6[3].
2. *May 1999 to Aug. 1999*: Ziad Al-Sharif, undergraduate student of the department of Math. & Computing Sci., SMU. Ziad was awarded an NSERC Undergraduate Research Award in April of 1999. Worked on the implementation of a small scale software for the experimental construction of various synchronization-error correcting codes.
1. *May 1998 to Jul. 1998*: John Johansen, undergraduate student of Computer Science at UoL. John Johansen’s name was in the Dean’s List (UoL) in 1997 and 1998.

7 Teaching

7.1 Graduate Courses Taught

2. *Managing and Programming Databases*, MCDA 5540, SMU.
1. *Graduate Seminar*, APS600.0, SMU.

7.2 Undergraduate Courses Taught

19. *Cryptography*, CSCI 4423, SMU.
18. *Coding and Information Theory*, CSCI 3826, SMU.
17. *Formal Logics with Applications in Computing Science*, csc492, SMU.
16. *File Structures*, CSCI 3462 (formerly csc462), SMU.
15. *Database Systems*, CSCI 3461 (formerly csc461), SMU.
14. *Theory of Computation*, CSCI 3451 (formerly csc451), SMU
13. *Computer Architecture*, csc328, SMU.
12. *Digital Logic and Assembly Level Machine Organization*, csc327, SMU.
11. *Theoretical Foundations of Computing Science*, CSCI 2307, SMU.
10. *Advanced Computer Programming & Problem Solving*, CSCI 1228, SMU.
9. *Intermediate Programming and Problem Solving*, CSCI 1227, SMU.
8. *Artificial Intelligence*, cs3750, UoL.

7. *Introduction to Database Systems*, cs3660, UoL.
6. *Data Structures and Algorithms*, cs3620, UoL.
5. *Systems Programming*, cs2690, UoL.
4. *Introduction to a Programming Language*, cs1620, UoL.
3. *Introduction to Computer Science*, cs1000A, UoL.
2. *Programming Concepts for Numerical Computing*, cs320b, UWO.
1. *Survey of Data Base Management*, cs319a, UWO.

7.3 Supervision of Directed Studies (reading courses)

10. *Incorporating Enhanced Python Code into the Formal Language Server*, APSC 6691.1: Fall 2016; SMU
9. *Database systems*, CSC3461: Winter 2013, Fall 2006; SMU.
8. *Some Algorithmic Tools on Automata and Transducers*, CSC6691 (graduate level): Fall 2010; SMU.
7. *Codes for DNA Computing*, CSC6691 (graduate level): Fall 2005; SMU.
6. *Formal Logics*, MAT490.2A: Summer Session I 2003; SMU.
5. *Spelling Correction*, CSC6T1.2 (graduate level): Summer Session II 2002; SMU.
4. *Decoding*, CSC499.2: Summer Session II 2002; SMU.
3. *Error Detection*, CSC491.1: Summer Session I 2001; SMU.
2. *Introduction to Partial Information Logic*, CS4990: Summer Session III 1997; UoL
1. *Object-Oriented Programming using Java*, CS3990: Summer Session I 1997; UoL

8 Service

8.1 University

33. *Acting Computing Science Co-ordinator*: department of Mathematics and Computing Science, SMU (Jul. 2023 – present).
32. Faculty Union Liaison of the department of Mathematics and Computing Sci. (with Dr Diego Rojas), SMU (Sep. 2022 – present).
31. *SMU Research Committee member*: 2022-2023, SMU.
30. *Acting Computing Science Co-ordinator*: department of Mathematics and Computing Science, SMU (Jan. 2020 – Jun 2020).
29. Member of the University Review Committee (Winter 2018).

28. Co-ordinator of the graduate students in the department of Mathematics and Computing Sci., SMU (Sep. 2014 – Aug. 2018).
27. Faculty Union Liaison of the department of Mathematics and Computing Sci., SMU (Sep. 2014 – Aug. 2016).
26. Hiring Committee, department of Mathematics and Computing Science, SMU (2016).
25. Technician Committee, department of Mathematics and Computing Science, SMU (2016).
24. Technical Report Series officer, department of Mathematics and Computing Science, SMU (Sep. 1999 – Sep. 2015).
23. MSc thesis defence chair; department of Mathematics and Computing Science (Aug. 2015).
22. MSc thesis defence chair; department of Finance, Computing and Information Systems thesis (Apr. 2014).
21. MSc thesis defence chair; department of Geology thesis (Apr. 2014).
20. *Computing Science Co-ordinator*: department of Mathematics and Computing Science, SMU (Jan. 2012 – May 2012).
19. Faculty Union Liaison of the department of Mathematics and Computing Sci., SMU (Year 2011/12).
18. Chair of the Search Committee, department of Mathematics and Computing Science, SMU (Fall 2011).
17. *Chairperson*: department of Mathematics and Computing Science, SMU (Sep. 2007 – Aug. 2010).
16. *Computing Science Co-ordinator*: department of Mathematics and Computing Science, SMU (Sep. 2005 – Aug. 2007).
15. Co-ordinator of the graduate students in the department of Math. and Computing Sci., SMU (Sep. 2002 – Dec. 2003).
14. Member of the MSc in Applied Science Program Committee, SMU (Apr. 2002 – Dec. 2003).
13. Chair of the Search Committee, department of Mathematics and Computing Science, SMU (May 2002 – Sep. 2002).
12. Seminar Series co-ordinator, department of Mathematics and Computing Science, SMU (Sep. 1999 – Dec. 2002).
11. SMU representative in the Computer Science APICS Committee, SMU (Sep. 1998 – Aug. 2001).
10. Organizer of the Math & CS Student Research Colloquium: a one day event where summer research students of the department of Mathematics and Computing Science, SMU, presented their work (Aug. 2001).
9. Search Committee, department of Mathematics and Computing Science, SMU (May 2001 – Jun. 2001).

8. Chair of the Search Committee, department of Mathematics and Computing Science, SMU (Jan. 2000 – Apr. 2000).
7. Library representative, department of Mathematics and Computing Science, SMU (Sep. 1999 – Aug. 2000).
6. Computing Science Curriculum Review Committee, department of Mathematics and Computing Science, SMU (Oct. 1998 – Aug. 1999).
5. Search Committee, department of Mathematics and Computing Science, SMU (May 1999).
4. Curriculum Committee, department of Mathematics and Computer Science, UoL (Oct. 1997 – Jun. 1998).
3. Independent Study Review Committee, department of Mathematics and Computer Science, UoL (Oct 1997 – Jun. 1998).
2. Student Representative in the Promotion and Tenure Committee, department of Computer Science, UWO (Jul. 1995 – Jun. 1996).
1. Student Representative in the Graduate Executive Committee and Graduate Committee, department of Computer Science, UWO (Sep. 1994 – Jun. 1995).

8.2 Profession

14. *International Committee Member*: IFIP Working Group 1.2 Descriptive Complexity, International Federation of Information Processing, Mar. 2018 – present.
13. *External Program assessor*: I was one of the three external assessors for the Review of the School of Mathematical and Computational Sciences (SMCS) of the University of PEI. It was a lengthy process and an interesting learning experience. Meetings: June 22-23 of 2021.
12. *Co-chair (with Dr Galina Jiraskova) of the Program Committee* of the 2019 international conference on descriptive complexity of formal systems, Košice, Slovakia, Jul. 2019.
11. *Chair of the Organizing and Program Committees* of the 2018 international conference on descriptive complexity of formal systems, Halifax, Jul. 2018.
10. *National committee chair*: “Research Tools and Instruments Review Committee”, Section of Computer Science, Statistics and Mathematics, NSERC, Sep. 2014 – Jan. 2015.
9. *Chair of the Organizing and Program Committees* of the 2013 international conference on the implementation and application of automata, Halifax, July 2013.
8. *National committee chair*: “Theoretical Computer Science” Section of the NSERC Computer Science Evaluation Group (EG 1507), Jun. 2010 – Mar. 2011.
7. *National committee member*: NSERC Computing and Information Sciences Grant Selection Committee (GSC 331)³, Aug. 2008 – Feb. 2011.

³Renamed later as NSERC Computer Science Evaluation Group (EG 1507).

6. *Member of the Program Committee of Conferences:*
 - Descriptive Complexity of Formal Systems, July 2023, Potsdam, Germany.
 - Descriptive Complexity of Formal Systems, July 2021, Seoul, South Korea.
 - Descriptive Complexity of Formal Systems, July 2019, Košice, Slovakia.
 - Confer. on the Implementation and Application of Automata, Jul. 2019, Košice, Slovakia.
 - Descriptive Complexity of Formal Systems, July 2016, Bucharest, Romania.
 - Confer. on the Implementation and Application of Automata, Jul. 2019, Seoul, South Korea.
 - Confer. on the Implementation and Application of Automata, Jul. 2014, Giessen, Germany.
 - Descriptive Complexity of Formal Systems, July 2013, London, Ontario.
 - Confer. on the Implementation and Application of Automata, Jul. 2013, Halifax, NS.
 - Confer. on the Implementation and Application of Automata, Jul. 2012, Porto, Portugal.
 - Confer. on the Implementation and Application of Automata, Jul. 2011, Milan, Italy.
 - Confer. on the Implementation and Application of Automata, Aug. 2010, Manitoba, Canada.
 - Descriptive Complexity of Formal Systems, July 2008, PEI, Canada.
 - Language Theory in Biocomputing, August 2007, Kingston, Canada.

5. *Referee for the journals:*
 - Acta Scientiarum Mathematicarum (1998).
 - Computers and Mathematics with Applications (2001).
 - Discrete Applied Mathematics (2005, 2006)
 - Fundamenta Informatica (2004, 2006).
 - IEEE Transactions on Information Technology in Biomedicine (2005).
 - IEEE Transactions on Information Theory (2013).
 - Information and Computation (2016, 2017).
 - International Journal of Computer Mathematics (2007, 2009).
 - International Journal of Foundations of Computer Science (2007, 2008, 2014, 2016, 2021).
 - Journal of Automata Languages and Combinatorics (2002, 2004, 2009, 2017).
 - Mathematical Structures in Computer Science (2017).
 - Natural Computing (2009).
 - Theoretical Computer Science (2023, 2020, 2016, 2010, 2008, 2006, 2005, 2002, 2001).
 - Theoretical Informatics and Applications (2013).
 - Theory of Computing Systems (2023).

4. *Referee for conferences:*
 - Descriptive Complexity of Formal Systems 2008, 2012, 2014.
 - Developments in Language Theory 2021, 2020, 2015, 2012, 2002.
 - Discrete Mathematics and Theoretical Computer Science 2003.
 - IEEE Communications Letters 1999.
 - LATA 2008.
 - STACS 2021.

3. *Assessor for:*
 - NSERC discovery grant applications (2003, 2007, 2008, 2012, 2014, 2015, 2017, 2022, 2023).
 - Research proposal (academic), Czech Science Foundation (2013).
 - Mathematical Reviews (2002, 2003, 2004, 2005, 2006, 2007, 2008).
 - Promotion to Professor of a faculty member in the Indian Institute of Technology Madras (2021)
 - Promotion to Professor of a faculty member in S. Korea (2019)
 - Promotion to Professor of a faculty member in Ontario (2018)

Promotion to Professor of a faculty member in Greece (2014)
 Promotion to Professor of a faculty member in Atlantic Canada (2013)
 Promotion to Professor of a faculty member in Ontario (2011).
 Promotion to Professor of a faculty member in Ontario (2011).
 Promotion to Professor of a faculty member in Ontario (2010).
 Promotion and Tenure case of a faculty member in Ontario (2007).

2. *External examiner of theses:*

Joao Pires, 2019 (MSc thesis, Porto University, Portugal).
 Timothy Ng, 2017 (PhD Thesis, Queen’s University).
 Ivon Amorim, 2016 (PhD Thesis, University of Porto).
 Liangliang (Steven) Tu, 2010 (MSc Thesis, Computer Science, Acadia).
 Kan Zhao, 2007 (MSc Thesis, Computer Science, Acadia).

1. *Reader of theses and/or member of supervisory committees:*

Sumesh Thakur, 2021 (MSc APSC Thesis, Computing Science, SMU).
 William Scherer, 2019 (Honours Thesis, Mathematics, SMU; supervised by Dr Mitja Mastnak)
 Ross Earle MacDonald (MCDA Thesis, Computing Science, SMU).
 Fatima Dow, 2017 (MSc APSC Thesis, Computing Science, SMU).
 Gilroy Gordon, 2017 (MSc Thesis, Computing and Data Analytics, SMU).
 Zachary MacDonald (Honours Thesis, Computing Science, SMU).
 Adrian Ellis, 2014 (MSc APSC Thesis, Computing Science, SMU).
 Rui Ding 2007 (MSc APSC Thesis, Finance, Infor. Systems and Management, SMU)
 Guang Xue 2005 (MSc APSC Thesis, Geography, SMU)
 Zhengyan Sun 2005 (MSc APSC Thesis, Computing Science, SMU)

8.3 Community

12. I have been the head cantor in the Saint George Greek Orthodox church of Halifax since 2021.
11. Problem contributor: Computer Programming Competition, Science Atlantic, Oct 2014.
Problem title: Can you find the secret keys?
10. Problem contributor: Computer Programming Competition, Science Atlantic, Oct 2013.
Problem title: Efficient codes.
9. Problem contributor: Computer Programming Competition, Science Atlantic, Oct 2012.
Problem title: The HBS language.
8. Problem contributor: Computer Programming Competition, Science Atlantic, Oct 2011.
Problem title: Pattern matching.
7. Mentor of a bright student at the Gorsebrook Junior High School: Jan. 11 – Jun. 11
6. Mentor of a bright student at the Gorsebrook Junior High School: Sep. 10 – Jun. 11
5. Talk in the summer Math Camp of Dalhousie University, July 2009. Title: “Unsolvable Computer Problems”.
4. I was a co-organizer of the Mini Math & Computing Conference for Sacred Heart Students (May 15, 2006, SMU)

3. Member of the By-laws committee of the Greek Orthodox Community of Saint George, Halifax (Dec 04 – Jan 07).
2. President of the PTA (Parent-Teacher Association) of the Greek school of the Greek Orthodox Community of Saint George, Halifax (Sep. 03 – Aug. 04).
1. During the months May–August of 1997 I developed a small scale software, SEGCALC, for Dr. Ivan Townshend, Department of Geography, UoL . SEGCALC (SEGregation index CALCulator) processes geographical data and calculates 19 segregation indices which are of interest to those working on quantitative methods of geography. We used SEGCALC on the 1991 census age data and GIS derived spatial data to measure age segregation in 25 Canadian metropolitan areas. The interpretation of these measurements was presented by Dr. Townshend in two conferences:
 1. Townshend, I; Konstantinidis, S.; and Walker, R. “What Dimensions of Residential Segregation? Metropolitan Age Segregation in Canada.” Presented at the annual meeting of the Canadian Regional Science Association, Memorial University Newfoundland, Aug. 97.
 2. Townshend, I; Konstantinidis, S.; and Walker, R. “The Dimensionality of Age Segregation in Canadian Metropolitan Areas.” Presented at the 1997 annual meeting of the Great Plains/Rocky Mountain Division of the Association of American Geographers, Sep. 97.