

CURRICULUM VITAE

NAME: Ilias S. Kotsireas

Erdős number: 3

ADDRESS:

Wilfrid Laurier University
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Personal web page: <http://web.wlu.ca/science/physcomp/ikotsireas/>

DEGREES

- 1995-1998, Ph.D. Department of Computer Science, Université Paris 6, French National Bureau of Standards, (Bureau des Longitudes) Paris, France. *Dissertation Title* : “Algorithms for solving polynomial systems: application to central configurations in the N-body problem of celestial mechanics.”.
Advisor : Prof. Daniel Lazard
- 1994-1995, M.Sc. Department of Computer Science, Université Paris 6, French National Bureau of Standards, Paris, France. *Dissertation Title* : “Central configurations in the N-body problem”.
Advisors : Prof. Daniel Lazard, Dr. Alain Albouy, Dr. Pierre-Vincent Koseleff
- 1992-1994 B.Sc. Department of Computer Science, Université Paris 6, Paris, France.
- 1986-1990 B.Sc. Department of Mathematics, University of Athens, Athens, Greece.

EMPLOYMENT HISTORY

- July 2011 - present, Professor, Wilfrid Laurier University, Department of Physics and Computer Science, Waterloo, Ontario, Canada.
- December 2005 - June 2011, Associate Professor, Wilfrid Laurier University, Department of Physics and Computer Science, Waterloo, Ontario, Canada.
- July 2001 - December 2005, Assistant Professor, Wilfrid Laurier University, Department of Physics and Computer Science, Waterloo, Ontario, Canada.
- October 1999 - June 2001, Post-Doctoral Fellow, Ontario Research Centre for Computer Algebra, (ORCCA) University of Western Ontario, London, Ontario, Canada.
- 1998-99 Lecturer (Attaché Temporaire Enseignement Recherche, ATER), Department of Computer Science, Université Paris 6, Paris, France.
- 1997-98 Laboratory Assistant (Travaux Dirigés, TD), Lycée Saint-Louis, Paris, France.
- 1994-98 Teaching Assistant (Formation Permanente) Department of Computer Science, Université Paris 6, Paris, France.
- 1995-96 Laboratory Assistant (Travaux Dirigés, TD), Université de Versailles Saint-Quentin-en-Yvelines, Versailles, France.

AFFILIATIONS (8)

- Affiliated Faculty: Center for Applied Optimization, University of Florida
<http://www.ise.ufl.edu/cao/>
- Associate Member: Ontario Research Centre for Computer Algebra <http://www.orcca.on.ca/>
- Adjunct Appointment: University of Waterloo, Computer Science <http://www.cs.uwaterloo.ca/>
- Faculty Member: Centre for Women in Science <http://www.wlu.ca/cwis>
- Core Faculty: Centre for Coupled Dynamics & Complex Systems <http://www.mmcs.wlu.ca/centre/>
- Laboratory of Algebraic and Geometric Algorithms, $E\rho\Gamma A$, <http://erga.di.uoa.gr/>
- Collaborator: Computational Intelligence lab, <http://cilab.math.upatras.gr/>
- OPTimization, Modelling and Applications, OPTIMA, <http://optima.cs.uoi.gr/>

HONOURS AND AWARDS (13)

- GeNeDis 2016 Award, October 21, 2016, Sparta, Greece
- Long Service (15 years) Award, September 28, 2016, Wilfrid Laurier University
- Merit Award, July 2016, Wilfrid Laurier University
- Best Poster Award, with M. Mohamedtaki et al. ACMES Conferences 2016 on Computationally Assisted Mathematical Discovery and Experimental Mathematics, Western University, London Ontario
- Merit Award, August 2012, Wilfrid Laurier University
- Merit Award, July 2009, Wilfrid Laurier University
- Merit Award, December 2005, Wilfrid Laurier University
- FTICA, Fellow of the Institute of Combinatorics and its Applications, January 28, 2004
- Best Poster Award, with D. Butcher, SHARCnet Power Partnership Performance event, January 2004, UWO, London ON, Canada
- ACM Web Assistant Award, ISSAC 2001 London, Ontario, Canada
- Best Poster Award, with A. Galligo, R. Corless, S. Watt, ISSAC 2001 London, Ontario, Canada
- Ontario Research Centre for Computer Algebra Post-Doctoral Fellowship, 1999-2001
- French Ministry of National Education Research and Technology Doctoral Scholarship, 1995-1998

SCHOLARLY AND PROFESSIONAL ACTIVITIES

- Chair, ACM SIGSAM, (Association for Computing Machinery Special Interest Group on Symbolic and Algebraic Manipulation) July 1, 2013 - July 1, 2017, <http://www.sigsam.org/>

i. Editorial Activities (10)

- Editor-in-Chief, **Journal of Algebraic Combinatorics** (JACO), Springer, October 15, 2017 -
- Managing Editor, **Mathematics in Computer Science**, Birkhäuser/Springer, January 1, 2017 -
- Editorial Board, January 2015 - January 2020, **Journal of Combinatorial Designs**, Wiley
- Editorial Board, **SpringerPlus**, Springer
- Editorial Board, **Journal of Algebra Combinatorics Discrete Structures and Applications**, published by Yildiz Technical University, Turkey
- Editorial Board, **Mathematics in Computer Science**, 2007 - 2017, Birkhäuser/Springer
- Editorial Board, **Journal of Computational Science**, published by Elsevier

- Editorial Board, **Optimization Letters**, published by Springer
- Editorial Board, **Special Matrices**, published by De Gruyter
- Editor, July 2003 - July 2013, **Communications in Computer Algebra**, published by ACM SIGSAM

ii. *Memberships*

- ACM/SIGSAM (Association for Computing Machinery, Special Interest Group on Symbolic and Algebraic Manipulation)
- HMS (Hellenic Mathematical Society)
- CMS (Canadian Mathematical Society)

iii. *Guest Editor for Special Issues of Journals (20)*

1. **Mathematics and Computers in Simulation**, Elsevier, Special Issue on *Applications of Computer Algebra in Science, Engineering, Simulation and Special Software*, 67, 2004, no. 1–2. Guest Editors: M. Wester, E. A. Arnold, P. Gianni, I. S. Kotsireas, E. Roanes-Lozano, S. Steinberg
2. **Journal of Symbolic Computation**, Elsevier, Special Issue on *Applications of Computer Algebra*, 40, 2005, no. 4-5. Guest Editors: I. S. Kotsireas, A. G. Akritas, S. Steinberg, M. Wester
3. **Mathematics in Computer Science**, Birkhäuser/Springer, Special Issue on *Modeling and Analysis of Complex Systems*, 1, 2007, no. 3. Guest Editor: I. S. Kotsireas
4. **Journal of Statistical Planning and Inference**, Elsevier, Special Issue on *Metaheuristics, Combinatorial Optimization and Design of Experiments*, 139, 2009, Issue 1. Guest Editors: C. Koukouvinos, I. S. Kotsireas
5. **Journal of Computational and Applied Mathematics**, Elsevier, Special Issue with papers from *NumAn 2007*, 227, 2009, no. 1. Guest Editors: E. Gallopoulos, A. Hadjidimos, I. S. Kotsireas, D. Noutsos, M. N. Vrahatis
6. **Applied Numerical Mathematics**, Elsevier, Special Issue with papers from *NumAn 2008*, Volume 60, Issue 4, Pages 293–512 (April 2010) Guest Editors: G. Akrivis, E. Gallopoulos, A. Hadjidimos, I. S. Kotsireas, D. Noutsos, M. N. Vrahatis
7. **Journal of Symbolic Computation**, Elsevier, Special Issue on *Groebner Bases and Applications*, Volume 46, 2011, Guest Editors: E. Arnold, I. S. Kotsireas, M. Rosenkranz
8. **Theoretical Computer Science**, Elsevier, Special Issue on *Symbolic Numeric Computation*, Volume 412, Issue 16, Pages 1443–1543, (April 2011), Guest Editors: I. Kotsireas, B. Mourrain, V. Pan
9. **Mathematics in Computer Science**, Birkhäuser/Springer, Special Issue on *Matroids in Coding Theory and Related Topics*, Guest Editors: I. S. Kotsireas, I. Márquez-Corbella, E. Martínez-Moro 2012, Volume 6, Number 2, Pages 107–108
10. **Journal of Computational Science**, Elsevier, Special Issue on *Computational Methods for Hyperbolic Problems*, Guest Editors: J.-H. Jung, I.S. Kotsireas, R. Melnik, A. Tesdall, 2013, Volume 4, Issues 1-2, Pages 1–124
11. **Theoretical Computer Science**, Elsevier, Special Issue on *Symbolic Numeric Computation 2011*, Guest Editors: I. Kotsireas, B. Mourrain, V. Pan, L. Zhi, 2013, Volume 479, April 2013, Pages 1–3.
12. **Applied Numerical Mathematics**, Elsevier, Special Issue with papers from *NumAn 2010*, Guest Editors: V. Dougalis, E. Gallopoulos, A. Hadjidimos, I. S. Kotsireas, D. Noutsos, Y. Saridakis, M. N. Vrahatis Volume 67 (2013), Pages 1-3.

13. **Journal of Computational Science**, Elsevier, High performance computing theory and applications - Proceedings of SHARCNET Research Day 2012 (Guelph, Ontario). Guest Editors: I. Kotsireas, L. Krivodonova, S. McConnell, E. Schnetter Volume 5, Issue 3, (2014) Pages 497–498.
 14. **Designs, Codes and Cryptography**, Springer, Computer Algebra in Coding Theory and Cryptography, Guest Editors: I. S. Kotsireas, E. Martínez-Moro, Volume 76 (2015), no. 1, Pages 1-2.
 15. **Applied Numerical Mathematics**, Elsevier, A. Hadjidimos, I. Kotsireas, D. Noutsos, M. Vrahatis [Special issue: NumAn 2012] Volume 104 (2016), Pages 1-2.
 16. **Applied Numerical Mathematics**, Elsevier, G. Akrivis, V. Dougalis, E. Gallopoulos, A. Hadjidimos, I. Kotsireas, D. Noutsos, Y. Saridakis, M. Vrahatis [Special issue: NumAn 2014] Volume 104 (2016), Pages 99-102.
 17. **Mathematics in Computer Science**, Birkhäuser/Springer, Thierry Dana-Picard, Wolfram Koepf, Ilias Kotsireas, Zoltan Kovacs, Alexander Prokopenya, Werner Seiler [Special issue: ACA 2016, Kassel, Germany] Volume 11 (1017) Issues 3-4, pp. 251–540.
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18. ON-GOING **Theoretical Computer Science**, Elsevier, Special Issue with papers from CAI 2017 Kalamata, Greece, Guest Editors: Manfred Droste (Germany), Ilias Kotsireas (Canada), Robert Rolland (France)
 19. ON-GOING **Mathematics in Computer Science**, Birkhäuser/Springer, Special Issue with papers from ACA 2017 Jerusalem, Israel, Guest Editors: Christoph Koutschan (Austria), Ilias Kotsireas (Canada), Daniel Robertz (United Kingdom), Noah Dana-Picard (Israel).
 20. ON-GOING **Mathematics in Computer Science**, Birkhäuser/Springer, Special Issue with papers from the 5th Workshop on Real and Complex Hadamard Matrices and Applications, Budapest, Hungary, Guest Editors: Dardo Goyeneche Poland, Padraig O’Cathain (United States), Ilias Kotsireas (Canada).

iv. Selected research visits & stays

- Research Institute for Symbolic Computation, RISC-Linz, November 1999, Linz, Austria.
- Center for Nonlinear Phenomena and Complex Systems, Université Libre de Bruxelles, CENOLI, ULB, February 2001, Brussels, Belgium.
- Intensive Summer School in Computer Algebra, July 2001, Queen’s University, Kingston, Ontario, Canada.
- ZIB-Berlin, Germany.
- MMRC, Beijing, P.R. China.
- EAGER - EMS Summer School on Computational Algebraic Geometry and Applications Eilat, Israel, February 2002.
- School of Mathematical Sciences, South China Normal University, Guangzhou, P. R. China, 2007.
- CAO, University of Florida, December 2008.
- Claude Shannon Institute, University College, Dublin, Ireland, July 2009.
- University of Athens, ERGA lab, Athens, Greece, March 15, 2015 - April 15, 2015.

v. Conference Referee (8)

- ISSAC, SNC, SYNASC, CASC, MEGA, ADG, MACIS, GECCO

vi. *External Grant Referee*

- MITACS Accelerate program, October 2011
- GEAR (Grants to Enhance and Advance Research) University of Houston, February 2010
- MITACS ERC (Elevate Review Committee), January/February 2010
- NSERC CRC (Canadian Research Chairs) Program, April 2007
- National Science Foundation (NSF) Panel member, May 2001, Arlington VA, USA
- National Science Foundation (NSF) Panel member, May 2007, Arlington VA, USA
- SHARCnet¹ Resource Allocation Committee, Round VI, May 2007, London ON, Canada
- SHARCnet Resource Allocation Committee, Round VII, December 2007, London ON, Canada

vii. *Tenure and Promotion Committees Evaluator* (4)

- University of Ioannina, Greece
- Technical University of Chania, Crete, Greece
- Aristotle University of Thessaloniki, Greece
- University of Thessaly, Volos, Greece

viii. *Journal Referee* (42)

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| Journal of Symbolic Computation | Mathematics of Computation |
| Discrete Mathematics | Theoretical Computer Science |
| Journal of Combinatorial Designs | Cryptography and Communications |
| Numerical Algorithms | SIAM Journal on Scientific Computing |
| Journal of Combinatorial Optimization | Optimization Letters |
| Linear Algebra and Its Applications | Australasian Journal of Combinatorics |
| Special Matrices | Canadian Journal of Physics |
| Journal of Integer Sequences | Journal of Computational Science |
| Journal of Parallel and Distributed Computing | Mathematics and Computers in Simulation |
| Mathematical and Computer Modelling | Mathematics in Computer Science |
| Journal of Geodesy | Applied Mathematics Letters |
| Applied Numerical Mathematics | Applied Mathematics and Computation |
| Computational Optimization and Applications | Statistics and Computing |
| Journal of Statistical Planning and Inference | Journal of Statistical Theory and Practice |
| Journal of Applied Statistics | Journal of Computational and Applied Mathematics |
| Journal of Mathematical Physics | Journal of Optimization Theory and Applications |
| Communications in Computer Algebra | TEST/SEIO, Spanish Society of Statistics and OR |
| Crux Mathematicorum | Journal of Computer Science and Technology |
| Mathematical Problems in Engineering | Journal of Applied Mathematics and Computing |
| Applied Soft Computing | |

Applicable Algebra in Engineering, Communication and Computing
International Journal of Computers and Mathematics With Applications
International Journal on Computational Geometry and Applications
IEEE Communications Letters

¹SHARCnet stands for Shared Hierarchical Academic Research Computing Network

viii. *Conference Organization* (68)

1. INTERNATIONAL CONFERENCE ON COMPUTATIONAL SCIENCE, Wuxi, China, 11-13 June, 2018
2. LION12, Learning and Intelligent OptimizatiON Conference, Kalamata, Greece, June 10-15, 2018
3. AIST 2017 6th International Conference on Analysis of Images, Social Networks, July 27 - 29, 2017, Moscow, Russia, Program Committee
4. MCA 2017 Montreal, Canada, Special Session "Finite Algebraic Combinatorics and Applications" co-organizer
5. ACA 2017 Jerusalem, Israel, General Chair
6. DOD 2017 Kalamata, Greece, General Chair
7. CAI 2017 Kalamata, Greece, General Chair
8. Computational Discovery 2016 London, ON, Canada, Program Committee
9. COCOA 2015 Houston, Texas, United States, Program Committee
10. MACIS 2015 Berlin, Germany, General Chair
11. Workshop on Symbolic Combinatorics and Computational Differential Algebra Fields Institute, Toronto, Canada, Program Committee
12. ACA 2015, Kalamata, Greece, General Chair
13. DOD 2015, Kalamata Greece, General Chair
14. ICCS 2015, Reykjavk, Iceland, Program Committee
15. COCOA 2014, Maui, Hawaii, USA, Program Committee
16. Quantum Optimization Workshop, October 2014, Fields Institute, Toronto, Organizing Committee.
17. NUMAN 2014 Chania, Greece, Organizing Committee
18. AISC 2014 Seville, Spain, Programme Committee
19. GECCO 2014 Vancouver, Canada, ACO-SI PC Member
20. ICCS 2014 Cairns, Australia, Programme Committee
21. SNC 2014 Shanghai, China, Programme Committee
22. ICWIP 2014 Waterloo, ON, Canada, Local Organizing Committee
23. ACA 2014 New York City, USA, Programme Chair
24. AMMCS 2013, Waterloo, ON, Canada, General Chair
25. ACA 2013, Malaga, Spain, Session Organizer, Programme Committee
26. ANODE 2013 Auckland, New Zealand, Organising Committee
27. NUMAN 2012, Ioannina, Greece, Organizing Committee
28. MACIS 2011, Beijing, China, Program Committee Chair
29. AMMCS 2011, Waterloo, ON, Canada, General Chair
30. SNC 2011, San Jose, CA, USA, General Chair
31. ISSAC 2011, San Jose, CA, USA, Fundraiser
32. WWCA 2011, W80, Waterloo, ON, Canada, Organizer
33. SEA 2011, Crete, Greece, Program Committee

34. PCA 2011, St. Petersburg, Russia, Program Committee
35. COCOA 2010, Hawaii, USA, Program Committee
36. ISSAC 2010 Munich, Germany, Poster Committee Chair
37. DMBIO 2010 Chania, Greece, Advisory Committee
38. SNC 2009 Kyoto, Japan, Program Committee Chair
39. CICM 2009/MKM 2009/Calculemus 2009 Grand Bend, ON, Canada, Program Committee, Publicity Chair
40. COCOA 2009 Yellow Mountains, China, Program Committee
41. SSGC 2009, 2nd SHARCnet Symposium on GPU and CELL Computing, UW, Organizing Committee
42. LRSR 2009, Laurier SHARCnet Research Symposium Waterloo, Ontario, Canada, Organizer
43. ACA 2008 Session on Grobner Bases and their Applications webpage Linz, Austria
44. SSGC 2008, SHARCnet Symposium on GPU and CELL Computing, UW, Organizing Committee
45. NumAn 2008 Kalamata, Greece, Organizing Committee, Local Organizing Committee
46. WWCA 2008 Waterloo, Ontario, Canada, General Chair
47. MICA 2008 Stonehaven Bay, Trinidad and Tobago, Publicity Chair
48. HPCS 2008 Quebec City, Canada, Program Committee
49. NumAn 2007 Kalamata, Greece, Organizing Committee, Local Organizing Committee
50. MC06 Maple Conference 2006, Waterloo, Ontario, Canada, General Chair
51. MACIS 2006 Beijing, China, Program Committee
52. WWCA 2006 Waterloo, Ontario, Canada, General Chair
53. ISSAC 2006 Genova, Italy, Publicity Chair
54. HPCS 2006 St. John's, Newfoundland, Canada, Program Committee
55. CASC 2005 Kalamata, Greece, General Chair
56. ACA 2005 Session on Computer Algebra and Coding Theory, Nara, Japan,
57. ECCAD 2005 Ashland, Ohio, USA, Advisory Council
58. ISSAC 2005 Beijing, China, Publicity Chair
59. MC05 Maple Conference 2005, Waterloo, Ontario, Canada, General Chair
60. HPCS 2005 Guelph, Ontario, Canada, Scientific Committee Chair and Steering Committee Member
61. ISSAC 2004 University of Cantabria, Santander, Spain, Poster Committee
62. ECCAD 2004 Waterloo, Ontario, Canada, General Chair
63. ICPSS 2004 Paris, France, Program Committee
64. ACA 2002 Volos, Greece, General Chair
65. ISSAC 2001 London, Ontario, Canada, Local Arrangements
66. CASC 2000 Samarkand, Uzbekistan, Program Committee
67. ECCAD 2000/SONAD 2000 London, Ontario, Canada, Local Arrangements
68. Permanent member of the ACAWG (Applications of Computer Algebra Working Group) since 2000.

STUDENT SUPERVISION (27)

Current Students:

1. Lara Jeftic, Directed Research Course
2. Scott King, Directed Research Course, NSERC RA
3. Ian Li, Directed Research Course, NSERC RA
4. Mohamed Mohamedtaki, Directed Research Course, co-supervised with Barbara Collignon (IBM)

Past Students:

1. Dan Butcher, SHARCnet Round III Graduate Fellowship
2. Jason Cousineau, Research Assistant
3. Cris Frusina, Directed Research Course
4. Alexei Karpenko, Research Assistant
5. Derek Knapp, SHARCnet Round VI Undergraduate Fellowship, Research Assistant
6. Edmond Lau, Research Assistant
7. Chris Odorjan, Research Assistant
8. Gil Pinheiro, Directed Research Course, Research Assistant
9. Dimitra Rentas, co-op Student
10. Michael Sukman, Research Assistant
11. Paul Walrath, Directed Research Course, Research Assistant
12. Noor Hadi, Research Assistant
13. Mike Koldychev, Research Assistant
14. Kyrylo Stepanchuk, Directed Research Course
15. Seanachi Dillon, Directed Research Course
16. Joel Hobson, Research Assistant, co-supervised with Eugene Zima
17. Yuzhen Xie, Post-doctoral Fellow, MITACS Elevate, co-supervised with Marc Moreno Maza
18. Fei Wang, MSc (University of Waterloo, Computational Mathematics) co-supervised with Mark Giesbrecht
19. Kelvin Chung, MSc (University of Waterloo, Computer Science) co-supervised with Mark Giesbrecht
20. Dalibor D. Dvorski, Directed Research Course
21. Harold Hodgins, Directed Research Course
22. Lawrence Barrett, MSc (University of Waterloo, Computational Mathematics) co-supervised with Arne Storjohann
23. George Lifchits, Directed Research Course, co-supervised with Shohini Ghose

TEACHING (9)

1. CP102 Information Processing with Microcomputer Systems, Fall 2004, Winter 2006, Winter 2007.
2. CP114 Data Structures I, Winter 2005.
3. CP315 Introduction to Scientific Computation, Fall 2004, Fall 2005, Winter 2012, Winter 2013, Winter 2018
4. CP363 Databases I, Winter 2002, Winter 2003, Winter 2004, Winter 2005, Winter 2006, Winter 2007.
5. CP400N Introduction to Parallel Programming, Winter 2012, Winter 2013, Winter 2014, Fall 2017.
6. CP411 Computer Graphics, Fall 2002, Fall 2005, Fall 2015.
7. CP463 Discrete Event Simulation, Winter 2002, Winter 2003, Winter 2004, Winter 2007, Winter 2009, Fall 2011.
8. CP465 Databases II, Fall 2002, Winter 2007, Winter 2009, Winter 2010, Fall 2013.
9. CP468 Artificial Intelligence, Winter 2010, Winter 2013, Fall 2015, Fall 2017.

INTERNAL RESEARCH FUNDING

| Year | Source | Type | Amount | Purpose |
|-----------|----------------|-------------------------------------|----------|-----------------|
| 2002 | WLU | Conference/Workshop Grant | \$ 3000 | ACA 2002 |
| Fall 2003 | WLU | Course Remission Grant | \$ 10000 | Research |
| 2004 | WLU | Conference/Workshop Grant | \$ 3000 | ECCAD 2004 |
| 2004 | WLU | Laurier Lecture co-sponsorship Fund | \$ 1100 | CSASM |
| 2004 | WLU | STEP | \$ 5000 | CSASM |
| 2004 | WLU | Academic Development Fund | \$ 1100 | ICPSS 2004 |
| 2005 | WLU | Academic Development Fund | \$ 1500 | CASC 2005 |
| 2005 | WLU | Merit Award | \$ 3000 | Research |
| 2006 | WLU | Academic Development Fund | \$ 3000 | WWCA 2006 |
| 2008 | SHARCnet & WLU | Funding | \$ 8000 | CSASM |
| 2009 | WLU | Merit Award | \$ 3000 | Research |
| 2010 | WLU | Special Initiatives Fund | \$ 3000 | Centenary AMMCS |
| 2011 | WLU | Conference/Workshop Grant | \$ 4800 | WWCA 2011 |
| 2012 | WLU | Merit Award | \$ 3000 | Research |

EXTERNAL RESEARCH FUNDING

| Year | Source | Type | Amount | Purpose |
|-----------|------------------|-----------------------------------|----------|------------------|
| 2010-2011 | SHARCnet | Site Leader Grant | \$ 8000 | Research |
| 2002-2006 | NSERC | Individual Research Grant | \$ 64000 | Research |
| 2006-2010 | SHARCnet | Site Leader Grant | \$ 32000 | Research |
| 2002 | SHARCnet | Round III Graduate Fellowship | \$ 22000 | Grad. Fell. |
| 2006-2011 | NSERC | Individual Research Grant | \$ 75000 | Research |
| 2007-2008 | EU | ENTER | € 96000 | Research |
| 2007 | SHARCnet | Round VI Undergraduate Fellowship | \$ 7000 | Undergrad. Fell. |
| 2008 | Fields Institute | Conference Organization | \$ 11000 | WWCA 2008 |
| 2011 | Fields Institute | Conference Organization | \$ 16000 | WWCA 2011 |
| 2011 | Fields Institute | Conference Organization | \$ 16000 | AMMCS 2011 |
| 2011 | MITACS | Elevate Postdoctoral Fellowship | \$ 55000 | Research |
| 2011-2016 | NSERC | Individual Research Grant | \$ 70000 | Research |
| 2012 | Fields Institute | Conference Organization | \$ 12000 | AMMCS 2013 |
| 2017-2019 | NSERC | Individual Research Grant | \$ 30000 | Research |

PUBLICATIONS

PAPERS IN REFEREED JOURNALS (66)

1. I. S. Kotsireas. Central configurations in the Newtonian N-body problem of Celestial Mechanics. **Contemporary Mathematics**, AMS, vol. 286, 2000, pp. 71–98
2. I. S. Kotsireas. Homotopies and polynomial system solving I. Basic Principles. SIGSAM Bulletin, March 2001, vol. 35, no. 1, issue 135, pp. 19-32
3. I. S. Kotsireas and D. Lazard. Central Configurations of the 5-body problem with equal masses in three-dimensional space. **J.Math. Sci. (New York)**, vol. 108, 2002, no. 6, pp. 1119–1138
4. K. Karamanos, I. Kotsireas. Thorough numerical entropy analysis by lumping of some substitutive sequences. **Kybernetes** 2002, Volume 31, no. 9/10, pp. 1409–1417
5. H. Evangelaras, I. Kotsireas, C. Koukouvinos. Applications of Groebner bases to the analysis of certain two or three level factorial designs. **Advances and Applications in Statistics** 3, no. 1, 2003 pp. 1–13.
6. I. Kotsireas, K. Karamanos. Exact computation of the Bifurcation point B4 of the logistic map and the Bailey-Broadhurst conjectures. **International Journal of Bifurcation and Chaos** Volume 14, no. 7, 2004, pp. 2417–2423
7. I. S. Kotsireas, C. Koukouvinos, Inequivalent Hadamard matrices with buckets, **J. Discrete Math. Sci. Cryptogr.** 7, 2004, no. 3, pp. 307–317.
8. I. Kotsireas, C. Koukouvinos and M.P. Rogantin, Inequivalent Hadamard matrices via indicator functions. **Int. J. Applied Math.** 16, 2004, no. 3, pp. 355–363.
9. K. Karamanos, I. Kotsireas, Statistical analysis of the first digits of the binary expansion of Feigenbaum constants α and δ , **Journal of the Franklin Institute**, Volume 342 (2005) pp. 329–340.
10. I. S. Kotsireas, C. Koukouvinos, Genetic Algorithms for the construction of Hadamard matrices with two circulant cores **J. Discrete Math. Sci. Cryptogr.** 8, 2005, no. 2, pp. 241–250.
11. I. S. Kotsireas, C. Koukouvinos, G. Pinheiro, Metasoftware for Hadamard matrices. **Int. J. Appl. Math.** 18, 2005, no. 2, pp. 263–278.
12. I. Z. Emiris, I. S. Kotsireas, Implicitization exploiting sparseness. Geometric and algorithmic aspects of computer-aided design and manufacturing, pp. 281–297, **DIMACS Ser. Discrete Math. Theoret. Comput. Sci.**, 67, AMS Providence, RI, 2005.
13. K. Karamanos, I. Kotsireas, Addendum: On the statistical analysis of the first digits of the Feigenbaum constants, **Journal of the Franklin Institute**, Volume 343 (2006) pp. 759-761.
14. I. S. Kotsireas, C. Koukouvinos. J. Seberry. Hadamard ideals and Hadamard matrices with circulant core **J. Combin. Math. Combin. Comput.** 57, 2006, pp. 47–63.
15. I. S. Kotsireas, C. Koukouvinos, J. Seberry. Hadamard ideals and Hadamard matrices with two circulant cores. **European Journal of Combinatorics** 27, 2006, no. 5, pp. 658–668.
16. J. Cousineau, I. Kotsireas, C. Koukouvinos, Genetic Algorithms for Orthogonal Designs **Australasian J. Combin.** 35, 2006, pp. 263–272.

17. I. S. Kotsireas, C. Koukouvinos Orthogonal designs via computational algebra. **Journal of Combinatorial Designs** 14, 2006, Issue 5, pp. 351–362.
18. I. Kotsireas and C. Koukouvinos, Constructions for Hadamard matrices of Williamson type, **J. Combin. Math. Combin. Comput.** 59, 2006, pp. 17–32.
19. I. Kotsireas, C. Koukouvinos and D. E. Simos, Large orthogonal designs via amicable sets of matrices. **Int. J. Appl. Math.** 19, 2006, no. 2, pp. 217–232.
20. I. Kotsireas and C. Koukouvinos, A computational algebraic approach for saturated D -optimal designs with $n \equiv 2 \pmod{4}$ observations. **Util. Math.** 71, 2006, pp. 197–207.
21. I. Kotsireas and C. Koukouvinos, Hadamard ideals and Hadamard matrices from two circulant submatrices. **J. Combin. Math. Combin. Comput.** 61, 2007, pp. 97–110.
22. I. Kotsireas, C. Koukouvinos, Orthogonal Designs of Order 32 and 64 via Computational Algebra. **Australasian J. Combin.** 39, 2007, pp. 39–48.
23. S. Georgiou, I. Kotsireas, C. Koukouvinos, Inequivalent Hadamard matrices of order $2n$ from Hadamard matrices of order n . **J. Combin. Math. Combin. Comput.** 63, 2007, pp. 65–79.
24. I. Kotsireas, C. Koukouvinos, J. Seberry, New orthogonal designs from weighing matrices. **Australasian J. Combin.** 40, 2008, pp. 99–104.
25. F.A. Chishtie, K.M. Rao, I.S. Kotsireas, S.R. Valluri, An investigation of uniform expansions of large order Bessel functions in Gravitational Wave Signals from Pulsars. **Int. J. Mod. Phys. D.** Vol. 17, No. 8 (2008) pp. 1197-1212.
26. I. S. Kotsireas, C. Koukouvinos, New skew-Hadamard matrices via computational algebra. **Australas. J. Combin.** 41 (2008), pp. 235–248
27. M. Chiarandini, I.S. Kotsireas, C. Koukouvinos, L. Paquete, Heuristic algorithms for Hadamard matrices with two circulant cores, **Theoretical Computer Science** 407 (2008) pp. 274–277.
28. I. S. Kotsireas, C. Koukouvinos, Periodic complementary binary sequences of length 50, **Int. J. Appl. Math.** 21, No. 3, (2008), pp. 509–514.
29. I. S. Kotsireas, C. Koukouvinos, Inequivalent Hadamard matrices of order 100 constructed from two circulant submatrices, **Int. J. Appl. Math.** 21, No 4, (2008), pp. 685–689.
30. I. Kotsireas, C. Koukouvinos, Hadamard matrices of Williamson type: a challenge for Computer Algebra **Journal of Symbolic Computation** 44, (2009), pp. 271–279.
31. I. Kotsireas, C. Koukouvinos, D. Simos, Inequivalent Hadamard matrices from base sequences **Util. Math.** 78, (2009), pp. 3–9.
32. R. M. Corless, K. Gatermann, I. S. Kotsireas, Using symmetries in the eigenvalue method for polynomial systems **Journal of Symbolic Computation** 44, (2009) pp. 1536–1550.
33. I. Kotsireas, C. Koukouvinos, New weighing matrices of order $2n$ and weight $2n - 5$ **J. Combin. Math. Combin. Comput.** 70, (2009) pp. 197–205

34. I. Kotsireas, C. Koukouvinos, J. Seberry, Weighing Matrices and String Sorting **Annals of Combinatorics** 13, (2009) pp. 305–313
35. I. Kotsireas, C. Koukouvinos, D. Simos, MDS and near-MDS self-dual codes over large prime fields **Advances in Mathematics of Communications** 3, No. 4, (2009) pp. 349-361
36. I. S. Kotsireas, C. Koukouvinos, P. M. Pardalos, An efficient string sorting algorithm for weighing matrices of small weight **Optimization Letters** 4, (2010) pp. 29–36
37. I. S. Kotsireas, C. Koukouvinos, J. Seberry, D. E. Simos, New classes of orthogonal designs constructed from complementary sequences with given spread **Australasian Journal of Combinatorics** 46, (2010), pp.67–78
38. I. Kotsireas, C. Koukouvinos, J. Seberry, New weighing matrices of order $2n$ and weight $2n - 9$ **J. Combin. Math. Combin. Comput.** 72 (2010), pp. 49–54.
39. I. S. Kotsireas, C. Koukouvinos, P. M. Pardalos, O. V. Shylo, Periodic complementary binary sequences and Combinatorial Optimization algorithms **Journal of Combinatorial Optimization** 20 (2010), pp. 63-75.
40. K.T. Arasu, I. S. Kotsireas, C. Koukouvinos, J. Seberry, On circulant and two-circulant weighing matrices **Australasian Journal of Combinatorics** 48 (2010), pp. 43–51.
41. I. Kotsireas, C. Koukouvinos, D. Simos, Inequivalent Hadamard matrices from near normal sequences **J. Combin. Math. Combin. Comput.** 75 (2010), pp. 105-115.
42. I. S. Kotsireas, C. Koukouvinos, P. M. Pardalos, A modified power spectral density test applied to weighing matrices with small weight **Journal of Combinatorial Optimization** 22 (2011), Issue 4, pp. 873–881.
43. I. S. Kotsireas, C. Koukouvinos, D. E. Simos, A meta-software system for orthogonal designs and Hadamard matrices. **Journal of Applied Mathematics and Informatics** 29 (2011), No 5–6, pp. 1571–1581.
44. M. N. Syed, I. S. Kotsireas, P. M. Pardalos, D-Optimal Designs: A Mathematical Programming Approach using Cyclotomic Cosets **Informatica** 22 (2011), No. 4, pp. 577-587.
45. I. S. Kotsireas, C. Koukouvinos, J. Seberry, New weighing matrices constructed from two circulant submatrices **Optimization Letters** 6, (2012) Number 1, pp. 211–217.
46. D. Z. Djokovic, I. S. Kotsireas, New results on D-optimal matrices, **Journal of Combinatorial Designs** Volume 20, Issue 6, June 2012, pp. 278-289.
47. I. S. Kotsireas, C. Koukouvinos, P. M. Pardalos and D. E. Simos, Competent genetic algorithms for weighing matrices **Journal of Combinatorial Optimization** 24 (2012), Number 4, pp. 508–525.
48. I. S. Kotsireas, P. M. Pardalos, D-optimal Matrices via Quadratic Integer Optimization, **Journal of Heuristics** 19 (2013) pp. 617-627.
49. Dragomir Z. Djokovic, Oleg Golubitsky, Ilias S. Kotsireas, Some new orders of Hadamard and skew-Hadamard matrices, **Journal of Combinatorial Designs** 22 (2014), no. 6, pp. 270-277.
50. Dragomir Z. Djokovic, Ilias S. Kotsireas, Compression of Periodic Complementary Sequences and Applications, **Designs Codes and Cryptography** 74 (2015), no. 2, pp. 365-377.

51. Dragomir Z. Djokovic, Ilias S. Kotsireas, Daniel Recoskie, Joe Sawada, Charm bracelets and their application to the construction of periodic Golay pairs, **Discrete Applied Mathematics** 188 (2015), pp. 32-40.
 52. Dragomir Z. Djokovic, Ilias S. Kotsireas, Some new periodic Golay pairs, **Numerical Algorithms** 69 (2015), no. 3, pp. 523-530.
 53. Ioannis Haranas, Ioannis Gkigkitzis, Omiros Ragos, Ilias Kotsireas, Quantum and Post-Newtonian Effects in the Anomalistic Period and the Mean Motion of Celestial Bodies, **Astrophysics and Space Science** (2015), 358:12
 54. Olivia Di Matteo, Dragomir Z. Djokovic, Ilias S. Kotsireas, Symmetric Hadamard matrices of order 116 and 172 exist, **Special Matrices** 3 (2015), pp. 227–234.
 55. Ioannis Haranas, Ioannis Gkigkitzis, Ilias Kotsireas, Maria K. Haranas, Ioannis Rekkas, The effect of gravitational acceleration in the streaming potential on the surface of a planetary body and in orbit around it, **Advances in Space Research** 56 (2015), pp. 1714-1725.
 56. Circulant Weighing Matrices: A Demanding Challenge for Parallel Optimization Metaheuristics, D. Souravlias, K.E. Parsopoulos, I.S. Kotsireas, **Optimization Letters** 10 (2016), no. 6, pp. 1303-1314.
 57. Yukawa effects on the mean motion of an orbiting body, Haranas, Ioannis; Kotsireas, Ilias; Gómez, Guillem; Fullana, Màrius J.; Gkigkitzis, Ioannis; **Astrophys. Space Sci.** 361 (2016), no. 11, 361:365.
 58. A class of cyclic $(v; k_1; k_2; k_3; \lambda)$ difference families with $v = 3 \pmod{4}$ a prime. Dragomir Z. Djokovic, Ilias S. Kotsireas, **Special Matrices** 4 (2016), Art. 29.
 59. Hard satisfiable 3-SAT instances via autocorrelation. Srinivasan Arunachalam, Ilias Kotsireas. **Journal of Satisfiability** 10 (2016) pp. 11–22.
 60. Combining SAT Solvers with Computer Algebra Systems to Verify Combinatorial Conjectures Edward Zulkoski Curtis Bright Albert Heinle Ilias Kotsireas Krzysztof Czarnecki Vijay Ganesh **Journal of Automated Reasoning** 58 (2017), Issue 3, pp. 313–339.
 61. Space time geometry in the atomic hydrogenoid system. Approach to a dust relativistic model from Causal Quantum Mechanics. G. Gómez, I. Kotsireas, I. Gkigkitzis, I. Haranas, M. J. Fullana. **Revista Mexicana de Física** 64 (2018) pp. 18-29
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62. TO APPEAR A feasibility approach for constructing combinatorial designs of circulant type. Francisco J. Aragón Artacho, Rubén Campoy, Ilias Kotsireas, Matthew K. Tam. **Journal of Combinatorial Optimization** Published Online: 12 February 2018
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63. ACCEPTED **MCS** Goethals-Seidel difference families with symmetric or skew base blocks. Dragomir, Djokovic, Ilias Kotsireas
-
64. SUBMITTED (2017) **Special Matrices** Constructing Orthogonal Designs in Powers of Two. Ilias Kotsireas, Temur Kutsia, Dimitris Simos

65. SUBMITTED (2017) **Optimization Methods and Software** Parallel Algorithm Portfolios with Performance Forecasting for the Detection of Circulant Weighing Matrices D. Souravlias, I.S. Kotsireas, P.M. Pardalos, K. E. Parsopoulos
66. SUBMITTED (2018) Algorithms for difference families in finite abelian groups. Dragomir, Djokovic, Ilias Kotsireas. **Discrete Applied Mathematics**

BOOKS EDITED (22)

1. ON-GOING ACMES conference proceedings, Fields Institute Communications series, Robert M. Corless (Western), Nicolas Fillion (SFU), David J. Jeffrey (Western), Ilias Kotsireas (Laurier).
2. ON-GOING Dynamics of Disasters, DOD 2017 Book of Proceedings, Ilias S. Kotsireas, Anna Nagurney (United States), Panos M. Pardalos (United States).
3. Lecture Notes in Computer Science, (LNCS 10693, Springer, 2017) MACIS 2017 Book of Proceedings, Johannes Blömer, Ilias S. Kotsireas, Temur Kutsia, Dimitris E. Simos (Editors)
4. ACA 2017 Book of Abstracts, Thierry Dana-Picard, Ilias Kotsireas, Aharon Naiman, 319 pp. online: <http://www.aca2017.jct.ac.il/>
5. CAI 2017 Book of Abstracts, Scott King, Ilias Kotsireas, 173 pp. online: <http://www.cargo.wlu.ca/CAI2017/>
6. ACA 2015 Book of Proceedings, Ilias Kotsireas and Edgar Martinez-Moro, Proceedings in Mathematics & Statistics 198. Springer (ISBN 978-3-319-56932-1)
7. ON-GOING Quantum Optimization, Fields Institute Communications, Tom Coleman, Ilias Kotsireas, Michele Mosca, Panos Pardalos, Rolando Somma.
8. Dynamics of Disasters, DOD 2015 Book of Proceedings, Ilias S. Kotsireas, Anna Nagurney, Panos M. Pardalos, Springer Proceedings in Mathematics & Statistics 185. Cham: Springer (ISBN 978-3-319-43707-1)
9. Lecture Notes in Computer Science, (LNCS 9582, Springer, 2016) MACIS 2015 Book of Proceedings, Ilias S. Kotsireas, Siegfried Rump, Chee K. Yap (Editors)
10. AMMCS 2013 Book of Proceedings, Interdisciplinary Topics in Applied Mathematics, Modeling and Computational Science, M. Cojocaru, I. Kotsireas et al. Springer Proceedings in Mathematics & Statistics, (PROMS) Vol. 117, 2015.
11. Advances in Combinatorics: In Memory of Herbert S. Wilf, Ilias S. Kotsireas and Eugene V. Zima Springer 2013.
12. Advances in Applied Mathematics, Modeling, and Computational Science Series. Fields Institute Communications, Vol. 66. R. Melnik, I. Kotsireas, 2013.
13. AMMCS 2011 Book of Proceedings, AIP 1368. Advances In Mathematical And Computational Methods: Addressing Modern Challenges of Science, Technology, and Society. Editors: I. Kotsireas, R. Melnik, B. West.
14. NumAn 2010 Book of Proceedings, September 2010. Editors: V. Dougalis, E. Gallopoulos, A. Hadjidimos, I.S. Kotsireas, D. Noutsos, Y.G. Saridakis, M.N. Vrahatis
15. Advances in Combinatorial Mathematics. Proceedings of the Waterloo Workshop in Computer Algebra 2008 Kotsireas, I. S.; Zima, E. V. (Eds.) Springer, 2010.
16. NumAn 2008 Book of Proceedings, September 2008. Editors: A. Akrivis, E. Gallopoulos, A. Hadjidimos, I. S. Kotsireas, D. Noutsos, M. N. Vrahatis, 209 pages.
17. NumAn 2007 Book of Proceedings, September 2007. Editors: E. Gallopoulos, E. Houstis, I. S. Kotsireas, D. Noutsos, M. N. Vrahatis, 172 pages.
18. Computer Algebra 2006. Latest Advances in Symbolic Algorithms. World Scientific Press, Editors: I. S. Kotsireas, E. V. Zima. 220 pages.
19. Maple Conference 2006, Maplesoft, Waterloo, Canada, Proceedings, Editors: I. S. Kotsireas, F. Kohandani, 371 pages.
20. Maple Conference 2005, Maplesoft, Waterloo, Canada, Proceedings, Editor: I. S. Kotsireas (with the assistance of I. J. Sinclair, J. Duketow, R. M. Kalbfleisch), 515 pages.

21. High Performance Computing Systems and Applications, HPCS 2005, Guelph, Canada, Conference Proceedings, IEEE, Editors: I. S. Kotsireas and D. Stacey, 362 pages.
22. Applications of Computer Algebra, ACA 2002, Volos, Greece, Book of Abstracts, Editors: A. G. Akritas, I. S. Kotsireas, 148 pages.

PAPERS IN REFEREED CONFERENCE PROCEEDINGS (27)

1. J.-C. Faugère and I. Kotsireas. Symmetry theorems for the Newtonian 4- and 5-body problems with equal masses. CASC 1999 Proceedings, Springer Verlag, LNCSE, V. Ganzha, et al. (Eds). pp. 81–92
2. I. Kotsireas. The Erdos-Straus conjecture on Egyptian Fractions. Paul Erdos and his mathematics (Budapest 1999) Janos Bolyai Math. Soc. A. Sali, M. Simonovits, V. Sos, eds. pp. 140–144
3. R. M. Corless, M. W. Giesbrecht, I. S. Kotsireas, S. M. Watt. Numerical implicitization of parametric hypersurfaces with linear algebra. AISC 2000 Proceedings, Springer Verlag, LNAI 1930, E. Roanes-Lozano, ed. pp. 174–183
4. R. M. Corless, M. W. Giesbrecht, M. van Hoeij, I. S. Kotsireas, S. M. Watt. Towards Factoring Bivariate Approximate Polynomials. ISSAC 2001 Proceedings, ACM Press, B. Mourrain ed. pp. 85–92
5. R. M. Corless, A. Galligo, I. S. Kotsireas, S. M. Watt. A Geometric-Numeric Algorithm for Absolute Factorization of Multivariate Polynomials. ISSAC 2002 Proceedings, ACM Press, T. Mora ed. pp. 37–45
6. K. Karamanos, Ilias S. Kotsireas, Towards Large-Scale Entropy Computations CASYS 2003 Proceedings, AIP, pp. 385–391
7. Ilias S. Kotsireas, Edmond Lau. Implicitization of Polynomial Curves, IPCurves. ASCM 2003 Proceedings, Beijing, China, Z. Li, W. Sit (Eds) pp. 217–226
8. Ioannis Z. Emiris, Ilias S. Kotsireas. Implicit Polynomial Support Optimized for Sparseness ICCSA'2003, Proceedings, LNCS 2669 Montreal, Canada, V. Kumar et al. (Eds) pp. 397–406
9. Ilias S. Kotsireas, Edmond Lau, Richard Voino. Implicitization of Polynomial Surfaces, IPSurfaces. CASC 2003 Proceedings, Passau, Germany, E. W. Mayr et al. (Eds) pp. 241–247
10. Ilias S. Kotsireas, Gil Pinheiro, A Meta-Software System for the Discovery of Hadamard Matrices, HPCS 2005 Proceedings, IEEE Guelph ON, Canada, I. Kotsireas, D. Stacey (Eds) pp. 17–23
11. I. S. Kotsireas, C. Koukouvinos, K. E. Parsopoulos, M. N. Vrahatis Unified Particle Swarm Optimization for Hadamard Matrices of Williamson Type MACIS 2006 Proceedings, Beijing, China pp. 113–121
12. I. S. Kotsireas, C. Koukouvinos, D. E. Simos Inequivalent Hadamard Matrices via Orthogonal Designs MACIS 2006 Proceedings, Beijing, China pp. 280–286
13. A. Kaltchenko, I. Kotsireas, N. Timofeeva, E. Yang, Entropy Rate Estimators with a Near-Optimal Upper Bound on Variance, Proceedings of the XI International Symposium on Problems of Redundancy In Information and Control Systems, Saint-Petersburg, Russia, July 2-6, 2007, pp. 18–21
14. I. S. Kotsireas, C. Koukouvinos, Inequivalent Hadamard Matrices from Orthogonal Designs, Proceedings of the 2007 International Workshop on Parallel Symbolic Computation, PASCOS'07, ACM, July 27-28, 2007, London ON, Canada, pp. 95–97
15. I. S. Kotsireas, K.E. Parsopoulos, G. Piperagkas, M.N. Vrahatis Ant-Based Approaches for Solving Auto-correlation Problems, ANTS 2012, September 12-14, 2012, Brussels, Belgium. Lecture Notes in Computer Science (LNCS), Vol. 7461, pp. 220–227, Springer (2012)

16. I. S. Kotsireas, Structured Hadamard Conjecture, Number Theory and Related Fields, In Memory of Alf van der Poorten, Springer Proceedings in Mathematics & Statistics, Vol. 43 Borwein, Jonathan M.; Shparlinski, Igor; Zudilin, Wadim (Eds.) pp. 215–227 (2013)
17. I. S. Kotsireas, A short introduction to Gröbner bases, CMS Notes Volume 46 No. 1, February 2014, pp. 18-19 <http://cms.math.ca/notes/>
18. I. S. Kotsireas, P. M. Pardalos, A new existence condition for Hadamard matrices with circulant core, Learning and Intelligent Optimization, LNCS 8426 (2014), pp. 383–390
19. Dragomir Z Djokovic, Ilias S. Kotsireas, D-optimal matrices of orders 138, 150, 154 and 174. Algebraic Design Theory and Hadamard Matrices, Springer Proceedings in Mathematics & Statistics 133, edited by C. Colbourn, (2015), pp. 71–82
20. Ilias S. Kotsireas, Jennifer Seberry, Yustina S. Suharini, Inner Product Vectors for skew-Hadamard Matrices. Algebraic Design Theory and Hadamard Matrices, Springer Proceedings in Mathematics & Statistics 133, edited by C. Colbourn, (2015), pp. 171–187
21. Dragomir Z Djokovic, Ilias S. Kotsireas, Periodic Golay pairs of length 72. Algebraic Design Theory and Hadamard Matrices, Springer Proceedings in Mathematics & Statistics 133, edited by C. Colbourn, (2015), pp. 83–92
22. Ilias Kotsireas, Temur Kutsia, Dimitris E. Simos, Constructing Orthogonal Designs in Powers of Two: Gröbner Bases Meet Equational Unification. 26th International Conference on Rewriting Techniques and Applications (RTA 2015), Warsaw, Poland, Leibniz International Proceedings in Informatics (LIPIcs) pp. 241–256
23. Ilias S. Kotsireas, Panos M. Pardalos, Konstantinos E. Parsopoulos, Dimitris Souravlias, On the Solution of Circulant Weighing Matrices Problems Using Algorithm Portfolios on Multi-Core Processors. Andrew V. Goldberg, Alexander S. Kulikov (Eds.), 15th International Symposium on Experimental Algorithms (SEA 2016), St. Petersburg, Russia, Springer, Lecture Notes in Computer Science 9685, (2016) pp. 184–200
24. Bright, Curtis; Ganesh, Vijay; Heinle, Albert; Kotsireas, Ilias; Nejati, Saeed; Czarnecki, Krzysztof, MATH-CHECK2: a SAT+CAS verifier for combinatorial conjectures. Gerdt, Vladimir P. et al. (Eds), Computer Algebra in Scientific Computing. Proceedings of the 18th international workshop, CASC 2016, Bucharest, Romania, Springer, Lecture Notes in Computer Science 9890, (2016) pp. 117–133
25. Ioannis Haranas, Ioannis Gkigkitzis, Ilias Kotsireas, Carlos Austerlitz, Neuronal Correlation Parameter and the Idea of Thermodynamic Entropy of an N-Body Gravitationally Bounded System. P. Vlamos (Ed.), GeNeDis 2016 Proceedings, Advances in Experimental Medicine and Biology 987, pp. 35–44
26. Ioannis Gkigkitzis, Ioannis Haranas, Ilias Kotsireas, Biological Relevance of Network Architecture. P. Vlamos (Ed.), GeNeDis 2016 Proceedings, Advances in Experimental Medicine and Biology 988, pp. 1–29
27. Curtis Bright, Vijay Ganesh, Ilias Kotsireas, A SAT+CAS Method for Enumerating Williamson Matrices of Even Order, AAAI, submitted, 2017

COLLECTIONS EDITED (3)

1. Laurier SHARCnet Research Symposium, LSRS 2009, Collection of Abstracts, 8 pages.
2. International Symposium on Symbolic and Algebraic Computation, ISSAC 2004, University of Cantabria, Santander Spain. Collection of Poster Abstracts, 55 pages.
3. East Coast Computer Algebra Day, ECCAD 2004, Waterloo, Canada, Collection of Abstracts, 22 pages.

CHAPTERS IN BOOKS and HANDBOOKS (3)

1. I. Kotsireas. Algorithms and Meta-heuristics for Combinatorial Matrices. Handbook of Combinatorial Optimization, 2nd Edition, 2013, Panos Pardalos, Ding-Zhu Du, Ronald Graham (Editors) pp 283–309.
2. I. Kotsireas. Panorama of methods for exact implicitization of algebraic curves and surfaces. Geometric Computation, World Scientific, 2003, Dongming Wang, Falai Chen (Editors) pp 126–155.
3. I. Kotsireas. Central Configurations in the Newtonian N-body problem of Celestial Mechanics. Computer Algebra Handbook, Springer Verlag, 2002, Johannes Grabmeier, Erich Kaltofen, Volker Weispfenning (Editors) pp 176–180.

BOOK (1)

1. IN PREPARATION (2017) I. S. Kotsireas, P. M. Pardalos, K. E. Parsopoulos Optimization Algorithms for Combinatorial Matrices: Recent Advances and Challenges. Springer.

TECHNICAL REPORTS (9)

1. I. S. Kotsireas. A Survey on Solution Methods for Integral Equations June 2008, Technical Report TR-08-03 ORCCA
2. K. Karamanos, I. Kotsireas. Fractal structure of the block-complexity function April 2008, Technical Report M/08/24 Prépublication I.H.E.S. Bures-sur-Yvette France
3. I. Z. Emiris, I. S. Kotsireas. On the Support of the Implicit Equation of Rational Parametric Hypersurfaces. August 2002, Technical Report TR-02-01 ORCCA
4. I. Kotsireas and G. Reid. Alternative Ways of Solving Polynomial Systems. 2001, Technical Report TR-01-03 ORCCA
5. I. S. Kotsireas. Homotopy and polynomial system solving. 2000, Technical Report TR-00-23 ORCCA
6. R. M. Corless, M. Giesbrecht, I. Kotsireas and S. Watt Symbolic-Numeric Algorithms for Polynomials 2000, Technical Report TR-00-21 ORCCA
7. Robert M. Corless, Mark W. Giesbrecht, Ilias S. Kotsireas and Stephen M. Watt. Numerical implicitization of parametric hypersurfaces with linear algebra. 2000, Technical Report TR-00-03 ORCCA
8. I. Kotsireas and J. Schicho. *A Computer Algebra solution to a planar newtonian 4-body problem with unequal masses*. Technical Report 00-16/2000 RISC-Linz.
9. I. Kotsireas. *Configurations centrales dans le problème des N Corps*. M.Sc. Thesis, 1995, LIP6, Université Paris 6, (in french)

PLENARY & INVITED TALKS (18)

1. The Second International Congress in Algebras and Combinatorics (ICAC 2007), Xian University of Architectural Technology and Science, July 2007, Xian, China, plenary speaker.
2. Applications of Computer Algebra (ACA 2013), Malaga, Spain, plenary speaker.
3. Compute Ontario Research Day (CORD 2014), Perimeter Institute for Theoretical Physics, Waterloo, ON, Canada, May 7, 2014, plenary speaker.
4. Algebraic Design Theory and Hadamard Matrices (ADTHM 2014), University of Lethbridge, Lethbridge, AB, Canada, July 8–11, 2014, invited speaker.
5. 7th International Week Dedicated to Mathematics, Thessaloniki, Greece, March 18–22, 2015, invited speaker.
6. Algebraic Combinatorics and Applications, the first annual Kliakhandler Conference Michigan Technological University, Houghton, Michigan, USA August 26–30, 2015, invited speaker.
7. Workshop on Linear Computer Algebra and Symbolic-Numeric Computation, Thematic Program in Computer Algebra, Fields Institute, Toronto, ON, Canada, October 26–31, 2015, invited speaker.
8. International Conference on Coding theory and Cryptography (ICCS 2015), Algiers, Algeria, Université des Sciences et de la Technologie Houari Boumediene, November 2–5, 2015, invited speaker.
9. 8th International Week Dedicated to Mathematics, Thessaloniki, Greece, March 30, 2016 – April 3, 2016, invited speaker.
10. April 26, 2016, PageRank seminar at Google Waterloo.
11. International Industrial Mathematics Conference-I, I²MC-I, 2016, University of Sri Jayewardenepura, Sri Lanka, June 3–5, 2016, plenary speaker.
12. Nordic Combinatorial Conference 2016, Levi, Kittilä, Finland, June 13-15 2016, plenary speaker.
13. April 2017, Perifereia Ioniwn Nisiwn (PIN) meeting, Ionian University, Corfu, Greece, invited speaker.
14. April 2017, Series of talks on MPI, Institute of Physical Chemistry, National Center for Scientific Research "Demokritos", Athens, Greece.
15. May 10-14, 2017, Summer School on Operational Research and Applications, Nizhny Novgorod, Russia, invited speaker.
16. May 17, 2017, LATNA Seminar Series, Nizhny Novgorod, Russia, invited speaker.
17. June 29-30, 2017, Conference on Approximation and Optimization: Algorithms, Complexity, and Applications, National and Kapodistrian University of Athens (NKUA), invited speaker.
18. November 3, 2017, Data Mining seminar at the Bank of Canada HQ in Ottawa.

WINTER/SUMMER SCHOOLS, INTENSIVE TRAINING (7)

1. January 2018, Intensive Maple training event in Waterloo, Instructors: Jürgen Gerhard (Maplesoft), Ilias Kotsireas (Laurier), Erik Postma (Maplesoft)
2. Saturday, March 25, 2017, Intensive Maple training event at The Fields Institute in Toronto, Instructors: Jürgen Gerhard (Maplesoft), Ilias Kotsireas (Laurier), Erik Postma (Maplesoft)
3. Saturday, November 12, 2016, Intensive Maple training event at Wilfrid Laurier University, Waterloo campus, Instructors: Jürgen Gerhard (Maplesoft), Ilias Kotsireas (Laurier), Erik Postma (Maplesoft)
4. Instructor: Winter School, Intensive training in Data Mining, GXUN, Nanning, China
5. Instructor: Winter School, Intensive training in high-performance computing, School of Mathematical Sciences, South China Normal University, (SCNU) Guangzhou, China, December 14-25, 2015.
6. Instructor: Summer School, Intensive training in high-performance computing, GXUN, Nanning, China
7. Instructor: Summer School, Intensive training in high-performance computing, XNU, Henan, China

CONFERENCE PRESENTATIONS AND PARTICIPATION

1. Troisième Rencontre Mathématique Internationale, 28 Septembre - 2 Octobre 1989, Centre Culturel Européen de Delphes, Delphes, Grece
2. 1er Conseil de Grecs à l'Étranger, 1st Council of Greeks Abroad, (SAE), 4-5 Décembre 1995, Thessaloniki, Greece. (participant au forum Internet)
3. PoSSo Workshop On Software, March 1-4, 1995, Université Pierre et Marie Curie, Paris 6, Campus de Jussieu, Paris, France
4. AAEECC-11, July 17-22, 1995, Ancienne Ecole Polytechnique, Paris, France.
5. World Wide Web 5 (WWW5), May 6-10, 1996, CNIT, Paris La Defense, France. (participant presse)
6. Groupe de Travail, Equipe du Calcul Formel du Paris 6 31 mai 1996, Paris, France (TALK)
7. Journée sur l'enseignement du Calcul Formel, June 19, 1996, Université de Rennes I, Campus de Beaulieu, IRMAR, Rennes, France.
8. AAEECC-12, June 23-27, 1997, Université Paul Sabatier, Toulouse, France.
9. 33 Years of Gröbner Bases, (33YGB) February 2-4, 1998, RISC, Linz, Austria.
10. CASC 1998 April 22, 1998, EIMI Saint-Petersburg, Russia. (TALK)
11. Séminaire Mathématiques Effectives May 26, 1998, IGD, Université Claude Bernard Lyon-I, Lyon, France. (TALK)
12. Séminaire Calcul Formel May 28, 1998, LMC, IMAG, Grenoble, France. (TALK)
13. Séminaire Astronomie et Systèmes Dynamiques June 18, 1998, Bureau des Longitudes, Paris, France. (TALK)
14. MEGA-98 June 22-27, 1998, Université de Rennes I, St-Malo, France.
15. ACA 1998 August 9-11, 1998, Prague, Czech Republic. (TALK)
16. ISSAC 1998 August 13-15, 1998, University of Rostock, Rostock, Germany.
17. Journées Nationales de Calcul Formel 26-30 Octobre 1998, CIRM, Luminy, Marseille, France (TALK)
18. ALGORITHMES DE RESOLUTION DES SYSTEMES POLYNOMIAUX : APPLICATION AUX CONFIGURATIONS CENTRALES DU PROBLEME DES N CORPS EN MECANIQUE CELESTE. December 16, 1998, Ph. D. Thesis, Université Pierre et Marie Curie, Paris 6, Paris, France.
19. Séminaire Calcul Formel et Complexité February 5, 1999, IRMAR, Campus de Beaulieu, Université de Rennes I, Rennes, France. (TALK)
20. Ecole Jeunes Chercheurs en Algorithmique et Calcul Formel March 22-26, 1999, LaBRI, Université Bordeaux 1, Bordeaux, France. (TALK)
21. FRISCO (an Esprit-LTR European Commission Project) Closing Workshop April 28-29, 1999, NAG Corporation, Oxford, England. (TALK)
22. Groupe de travail de l'équipe Calcul formel May 19, 1999, LIFL, Université de Lille I, Lille, France. (TALK)
23. CASC 1999 May 31 - June 4, 1999, TUM, Munchen, Germany. (TALK)
24. IMACS-ACA'99 June 24-27, 1999, Madrid, Spain. (TALK), co-organizer of the session Computer Algebra for Dynamical Systems and Mechanics
25. PAUL ERDOS Memorial Conference July 4-11, 1999, Budapest, Hungary. (short communication, poster) Satellite conference of the UNESCO-ICSU World Conference on Science
26. Seminar in Symbolic Mathematical Computing October 8, 1999, UWO, CSD, London, Ontario, Canada. (TALK)
27. IBM CASCON November 8-11, 1999, Toronto, Canada. (ORCCA posters)

28. RISC-LINZ November 27-30, 1999, Linz, Austria.
29. ECCAD 2000 SONAD 2000 May 12-13, 2000, London, Ontario, Canada. (posters)
30. SCL/SCG/ORCCA joint lab meeting June 2, 2000, Waterloo, Ontario, Canada. (TALK)
31. MITACS Annual General Meeting The Legacy of John Charles Fields, The Fields Institute June 6-7, 2000, Toronto, Canada.
32. AMS Summer Research Conference in Symbolic Computation June 11-15, 2000, Mt Holyoke, MA, USA. (TALK)
33. MEGA-2000 June 20-24, 2000, Bath, England. (TALK)
34. ACA 2000 June 25-28, 2000, St. Petersburg, Russia. (TALK) Program Comm.
35. Classical Combinatorics FoataFest July 7-9, 2000, Temple University, Philadelphia, PA, USA.
36. AISC 2000 July 17-19, 2000, Madrid, Spain. (TALK)
37. SCL/SCG/ORCCA joint lab meeting October 6, 2000, Waterloo, Ontario, Canada. (TALK)
38. ECCAD 2001 May 5, 2001, Talahassee, FL, USA.
39. Large Class Teaching Workshop, Educational Development Office May 15-May 16, 2001, London, Ontario, Canada.
40. ACA 2001 Albuquerque, New Mexico
41. CAIMS 2001 Victoria, British Columbia, Canada
42. SONAD 2001 Waterloo, Ontario, Canada
43. Intensive Summer School in Computer Algebra, Kingston, Ontario
44. ISSAC 2001 London, Ontario, Canada.
45. ISAAC 2001 ZIB, Freie Universität, Berlin, Germany. (TALK)
46. ADCOG21, City University of Hong Kong, Hong Kong, China. (TALK)
47. Joint Mathematics Meetings, San Diego, CA. (TALK)
48. EAGER - EMS Summer School on Computational Algebraic Geometry and Applications Eilat, Israel, February 2002.
49. Mathematics Mechanization Research Center, MMRC Beijing, China, April, 2002. (TALK)
50. USTC Seminar on Geometric Computation Hefei, Anhui Province, China, April, 2002. (TALK)
51. TICAM, Center for Computational Visualization May 2002, Austin, TX
52. ECCAD 2002, LaGuardia Community College Saturday, May 18, 2002, Long Island City, NY, NY
53. CBMS Lectures, Texas A&M University: Solving Systems of Polynomial Equations May 20-24, 2002, College Station, TX
54. CBMS Lectures, Eastern Illinois University: N-Body Problem June 9-15, 2002, Charleston, IL, USA
55. ACA 2002 June 25-28, 2002, Volos, Greece
56. ISSAC 2002 July 7-10, 2002, Lille, France
57. FoCM 2002 August 8-11, 2002, Minneapolis, MN, USA
58. Midwest Dynamical Systems Seminar October 4-6, 2002, Cincinnati, OH, USA
59. LMCS 2002 October 20-22, 2002, RISC-Linz, Austria
60. UOA/NTUA Kounias conference June/July 2003
61. ACA 2003 July 2003, Raleigh NC, USA
62. ISSAC 2003 August 2003, Drexel, Philadelphia, USA
63. CASC 2003 October 2003, CASC 2003 Passau, Germany
64. DIMACS workshop Rutgers, NJ, USA, 2003
65. ASCM 2003 , 2003, Beijing, P. R. China

66. ICPSS 2004, November 24-26, 2004, Paris, France
67. ECCAD 2004, May 8, 2004, Waterloo ON, Canada
68. ICODOE 2005, May 13-15, 2005, Memphis TN, USA
69. HPCS 2005, May 15-18, 2005, Guelph ON, Canada
70. CMS/CSHPM Summer 2005 Meeting, June 4-6, 2005, Waterloo ON Canada
71. Maple Conference 2005, July 17-21, 2005, Waterloo ON, Canada
72. ACA 2005, July 31 - August 3, 2005, Nara, Japan
73. ACM SGB (SIG Governing Board) August 12-13, 2005, Newark, NJ, USA
74. Euroconference in Algebraic Combinatorics, August 20-26, 2005, Crete, Greece
75. CASC 2005, September 12-16, 2005, Kalamata, Greece
76. ASCM 2005, December 10-12, 2005, Seoul, Korea
77. Waterloo Computational Mathematics Colloquia Series, January 23, 2006
78. Rutgers Experimental Mathematics Seminar, February 2, 2006
79. Department of Mathematics and Statistics, Oakland University, Algebra Seminar, February 20, 2006
80. Waterloo Workshop on Computer Algebra 2006, April 10-12, 2006
81. Interactive Parallel Computation in Support of Research in Algebra, Geometry and Number Theory, January 29 to February 2, 2007, Mathematical Sciences Research Institute, MSRI, UC Berkeley, USA.
82. International Workshop on Hadamard and Cocyclic Matrices and Applications, IWHCMA 2007, June 18-19, 2007, Sevilla, Spain (TALK)
83. Guest Lecture in Doron Zeilberger's Experimental Mathematics class, Rutgers University, March 5, 2009
84. Rutgers Experimental Mathematics Seminar, March 5, 2009
85. International Conference on Design Theory and Applications, celebrating the 50th birthday of Dr Warwick de Launey, 2nd International Workshop on Hadamard and Cocyclic Matrices and Applications National University of Ireland, Galway, July 1-3, 2009 (TALK)
86. International Workshop on Hadamard Matrices and their Applications, In honour of the 60th birthday of Kathy Horadam, RMIT, Melbourne, Australia, November 2011 (TALK)
87. International Meeting to Celebrate the 60th Birthday of Jonathan Borwein. University of Newcastle, Australia, December 2011 (TALK)
88. University of Ioannina, Ioannina, Greece, September 2014 (TALK)
89. Caltech, Pasadena CA, USA, Department of Mathematics, September 2014 (TALK)
90. Conestoga College, Doon (Kitchener) Campus, October 2014 (TALK)
91. Jerusalem College of Technology, Jerusalem, Israel, June 2015 (TALK)
92. Gil Kalai 60th birthday conference, Hebrew University of Jerusalem, Israel

ADMINISTRATIVE AND COMMUNITY SERVICE

Department:

1. co-organizer: Department Seminar Series, <http://bohr.wlu.ca/seminars/>
 - with Li Wei and Marek Wartak, 2015-2016
 - with Paul McGrath and Marek Wartak, Winter 2015
2. PTAC Committee, 2010-2011, 2015-2016, Web page Committee, 2005, DAP Committee
3. Undergraduate Advisor, 2008-2009, 2009-2010, 2010-2011, 2013-2014

Faculty:

1. Research Round Table, September 2009, Laurier Research Office, Laurier Chongqing Office
2. Ontario Universities Fair, Toronto, Faculty of Science kiosk, 2005
3. Teachers Science Day 2005, Presentation Title: "Working with 200 computers simultaneously, high-performance computing demonstration", February 2005
4. co-founder (with Roderick Melnik) of the Laurier Seminar Series in Computational Science and Applied and Statistical Modelling (CSASM) 2004-2014, <http://www.mmcs.wlu.ca/csasm/>
5. Environment/occupational Health and Safety Committee, Emergency Warden, 2004-2005
6. Admissions Committee, 2006-2007

University:

1. Senate Promotion and Tenure Committee (SPAT), Alternate, September 1, 2017 – August 31st, 2019
2. Designing Effective Course Syllabi Workshop, Educational Development Team, Wilfrid Laurier University, November 2009
3. Student Awards Selection Committee, Faculty of Science, Wilfrid Laurier University, 2009-2010
4. Internal Grants Committee, Wilfrid Laurier University, September 1, 2009 - August 31, 2011
5. Senate Committee on Information Technology, SCIT, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010
6. Shared Hierarchical Academic Research Computing Network (SHARCnet) Site Leader for Wilfrid Laurier University, December 2005 – today
7. Shared Hierarchical Academic Research Computing Network (SHARCnet), Chair of the Site Leaders Committee, July 1, 2011 – June 30, 2012.

External:

1. D2L (Desire2Learn) Usability Study, Fall 2014
2. Defense Committee Chair, Frederico Faria, PhD thesis, WLU, October 2014

3. Eastwood Collegiate Institute (ECI), Professional Development Day, April 19, 2013,
Workshop Title: "Exploring Fractals"
4. SHARCNET Board of Directors, Researcher Representative, May 1, 2012 to April 30, 2013
5. External Examiner, Rui Hu, PhD thesis, University of Western Ontario, 2013
6. Reader, Ruitong Huang, MSc thesis, University of Waterloo, July 2010
7. Poster Committee, SHARCnet Research Day, York University, May 6, 2010
8. Poster Committee, SHARCnet Research Day, University of Waterloo, May 21, 2009
9. Committee chair, Sherry McGee, MSc thesis, Wilfrid Laurier University, September 2009
10. External Examiner, Wenqin Zhou, PhD thesis, University of Western Ontario, 2007
11. Wilfrid Laurier University Phi Club, "Maple, Visualization and Fractals", November 2006
12. External Examiner, Brad Botting, MSc thesis, University of Waterloo, 2004
13. Promoting Women in Science, PROWIS 2003,
Workshop Title: "The Fractal Geometry of Nature" May 2003
14. Promoting Women in Science, PROWIS 2002,
Workshop Title: "Have fun with the computer while learning useful Mathematics" May 2002