

CURRICULUM VITAE

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Wilfrid Laurier University
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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* : Professor 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 (6)

- 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/>
- 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/>
- OPTimization, Modelling and Applications, OPTIMA, <http://optima.cs.uoi.gr/>

HONOURS AND AWARDS (8)

- 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

i. Editorial Activities

- Editor, (since 2004), **Communications in Computer Algebra**, published by the Association for Computing Machinery (ACM) Special Interest Group on Symbolic and Algebraic Manipulation (SIGSAM)
- Editorial Board, **Mathematics in Computer Science**, published by Birkhäuser/Springer
- Editorial Board, **Journal of Computational Science**, published by Elsevier
- Editorial Board, **Optimization Letters**, published by Springer

ii. Memberships

- ACM/SIGSAM (Association for Computing Machinery, Special Interest Group on Symbolic and Algebraic Manipulation)
- AMS (American Mathematical Society)
- HMS (Hellenic Mathematical Society)
- ICA (Institute of Combinatorics and its Applications)
- MAA (Mathematical Association of America)

iii. *Guest Editor for Special Issues of Journals (12)*

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
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9. ON-GOING **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
 10. ON-GOING **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
 11. ON-GOING **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
 12. ON-GOING **Theoretical Computer Science**, Elsevier, Special Issue on *Symbolic Numeric Computation 2011*, Guest Editors: I. Kotsireas, B. Mourrain, V. Pan, L. Zhi

Attended Elsevier TrainingDesk modules <http://trainingdesk.elsevier.com/>

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.
- CAO, University of Florida, December 2008.
- Claude Shannon Institute, University College, Dublin, Ireland, July 2009.

v. *Journal Referee* (30)

1. Journal of Symbolic Computation
2. Mathematics of Computation
3. Discrete Mathematics
4. Theoretical Computer Science
5. Journal of Combinatorial Designs
6. Numerical Algorithms
7. SIAM Journal on Scientific Computing
8. Journal of Combinatorial Optimization
9. Optimization Letters
10. Applicable Algebra in Engineering, Communication and Computing
11. Linear Algebra and Its Applications
12. Journal of Computational Science
13. Mathematics and Computers in Simulation
14. Mathematical and Computer Modelling
15. Mathematics in Computer Science
16. Journal of Geodesy
17. International Journal of Computers and Mathematics With Applications
18. International Journal on Computational Geometry and Applications
19. Applied Mathematics Letters
20. Applied Numerical Mathematics
21. Applied Mathematics and Computation
22. Computational Optimization and Applications
23. Statistics and Computing
24. Journal of Statistical Planning and Inference
25. Journal of Applied Statistics
26. Journal of Computational and Applied Mathematics
27. Journal of Mathematical Physics
28. Journal of Optimization Theory and Applications
29. Communications in Computer Algebra
30. Crux Mathematicorum

vi. *Conference Referee* (7)

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

vii. *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

¹SHARCnet stands for Shared Hierarchical Academic Research Computing Network

viii. *Conference Organization (42)*

1. NUMAN 2012, Ioannina, Greece, Organizing Committee
2. MACIS 2011, Beijing, China, Program Committee Chair
3. AMMCS 2011, Waterloo, ON, Canada, General Chair
4. SNC 2011, San Jose, CA, USA, General Chair
5. ISSAC 2011, San Jose, CA, USA, Fundraiser
6. WWCA 2011, W80, Waterloo, ON, Canada, Organizer
7. SEA 2011, Crete, Greece, Program Committee
8. PCA 2011, St. Petersburg, Russia, Program Committee
9. COCOA 2010, Hawaii, USA, Program Committee
10. ISSAC 2010 Munich, Germany, Poster Committee Chair
11. DMBIO 2010 Chania, Greece, Advisory Committee
12. SNC 2009 Kyoto, Japan, Program Committee Chair
13. CICM 2009/MKM 2009/Calculus 2009 Grand Bend, ON, Canada, Program Committee, Publicity Chair
14. COCOA 2009 Yellow Mountains, China, Program Committee
15. SSGC 2009, 2nd SHARCnet Symposium on GPU and CELL Computing, UW, Organizing Committee
16. LSRS 2009, Laurier SHARCnet Research Symposium Waterloo, Ontario, Canada, Organizer
17. ACA 2008 Session on Grobner Bases and their Applications webpage Linz, Austria
18. SSGC 2008, SHARCnet Symposium on GPU and CELL Computing, UW, Organizing Committee
19. NumAn 2008 Kalamata, Greece, Organizing Committee, Local Organizing Committee
20. WWCA 2008 Waterloo, Ontario, Canada, General Chair
21. MICA 2008 Stonehaven Bay, Trinidad and Tobago, Publicity Chair
22. HPCS 2008 Quebec City, Canada, Program Committee
23. NumAn 2007 Kalamata, Greece, Organizing Committee, Local Organizing Committee
24. MC06 Maple Conference 2006, Waterloo, Ontario, Canada, General Chair
25. MACIS 2006 Beijing, China, Program Committee
26. WWCA 2006 Waterloo, Ontario, Canada, General Chair
27. ISSAC 2006 Genova, Italy, Publicity Chair
28. HPCS 2006 St. John's, Newfoundland, Canada, Program Committee
29. CASC 2005 Kalamata, Greece, General Chair
30. ACA 2005 Session on Computer Algebra and Coding Theory, Nara, Japan,
31. ECCAD 2005 Ashland, Ohio, USA, Advisory Council
32. ISSAC 2005 Beijing, China, Publicity Chair
33. MC05 Maple Conference 2005, Waterloo, Ontario, Canada, General Chair
34. HPCS 2005 Guelph, Ontario, Canada, Scientific Committee Chair and Steering Committee Member
35. ISSAC 2004 University of Cantabria, Santander, Spain, Poster Committee
36. ECCAD 2004 Waterloo, Ontario, Canada, General Chair
37. ICPSS 2004 Paris, France, Program Committee
38. ACA 2002 Volos, Greece, General Chair
39. ISSAC 2001 London, Ontario, Canada, Local Arrangements
40. CASC 2000 Samarkand, Uzbekistan, Program Committee
41. ECCAD 2000/SONAD 2000 London, Ontario, Canada, Local Arrangements
42. Permanent member of the ACAWG (Applications of Computer Algebra Working Group) since 2000.

STUDENT SUPERVISION (18)

Current Students:

1. Kelvin Chung, MSc (University of Waterloo, Computer Science) co-supervised with Mark Giesbrecht

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. Kyrlo Stepanchuk, Directed Research Course
15. Seanachi Dillon, Directed Research Course
16. Joel Hobson, Research Assistant, co-supervised with Eugene Zima
17. Fei Wang, MSc (University of Waterloo, Computational Mathematics) co-supervised with Mark Giesbrecht

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.
4. CP363 Databases I, Winter 2002, Winter 2003, Winter 2004, Winter 2005, Winter 2006, Winter 2007.
5. CP400N Introduction to Parallel Programming, Winter 2012
6. CP411 Computer Graphics, Fall 2002, Fall 2005.
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.
9. CP468 Artificial Intelligence, Winter 2010.

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

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

PUBLICATIONS

BOOKS EDITED (10)

(some are available from the TriUniversity Group of Libraries <http://www.tug-libraries.on.ca/>)

1. 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.
2. 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
3. Advances in Combinatorial Mathematics. Proceedings of the Waterloo Workshop in Computer Algebra 2008 Kotsireas, I. S.; Zima, E. V. (Eds.) Springer, 2010, XII, 174 p. ISBN: 978-3-642-03561-6
4. NumAn 2008 Book of Proceedings, September 2008. Editors: A. Akrivis, E. Gallopoulos, A. Hadjidimos, I. S. Kotsireas, D. Noutsos, M. N. Vrahatis, 209 pages.
5. NumAn 2007 Book of Proceedings, September 2007. Editors: E. Gallopoulos, E. Houstis, I. S. Kotsireas, D. Noutsos, M. N. Vrahatis, 172 pages.
6. Computer Algebra 2006. Latest Advances in Symbolic Algorithms. World Scientific Press, Editors: I. S. Kotsireas, E. V. Zima. 220 pages.
7. Maple Conference 2006, Maplesoft, Waterloo, Canada, Proceedings, Editors: I. S. Kotsireas, F. Kohandani, 371 pages.
8. 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.
9. High Performance Computing Systems and Applications, HPCS 2005, Guelph, Canada, Conference Proceedings, IEEE, Editors: I. S. Kotsireas and D. Stacey, 362 pages.
10. Applications of Computer Algebra, ACA 2002, Volos, Greece, Book of Abstracts, Editors: A. G. Akritas, I. S. Kotsireas, 148 pages.

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 (2)

1. I. Kotsireas. Central Configurations in the Newtonian N-body problem of Celestial Mechanics. Computer Algebra Handbook, Springer Verlag, 2002, J. Grabmeier, E. Kaltofen, V. Weispfenning eds pp 176-180.
2. I. Kotsireas. Panorama of methods for exact implicitization of algebraic curves and surfaces. Geometric Computation, World Scientific, 2003, D. Wang, F. Chen eds pp 126-155.

PAPERS IN REFEREED JOURNALS (47)

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 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
3. K. Karamanos, I. Kotsireas. Thorough numerical entropy analysis by lumping of some substitutive sequences. **Kybernetes** 2002, Volume 31, no. 9/10, pp. 1409–1417
4. 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.
5. 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
6. I. S. Kotsireas, C. Koukouvinos, Inequivalent Hadamard matrices with buckets, **J. Discrete Math. Sci. Cryptogr.** 7, 2004, no. 3, pp. 307–317.
7. 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.
8. 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.
9. 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.
10. I. S. Kotsireas, C. Koukouvinos, G. Pinheiro, Metasoftware for Hadamard matrices. **Int. J. Appl. Math.** 18, 2005, no. 2, pp. 263–278.
11. 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.
12. 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.
13. 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.
14. 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.
15. J. Cousineau, I. Kotsireas, C. Koukouvinos, Genetic Algorithms for Orthogonal Designs **Australasian J. Combin.** 35, 2006, pp. 263–272.
16. I. S. Kotsireas, C. Koukouvinos Orthogonal designs via computational algebra. **Journal of Combinatorial Designs** 14, 2006, Issue 5, pp. 351–362.

17. I. Kotsireas and C. Koukouvinos, Constructions for Hadamard matrices of Williamson type, **J. Combin. Math. Combin. Comput.** 59, 2006, pp. 17–32.
18. 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.
19. 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.
20. I. Kotsireas and C. Koukouvinos, Hadamard ideals and Hadamard matrices from two circulant submatrices. **J. Combin. Math. Combin. Comput.** 61, 2007, pp. 97–110.
21. I. Kotsireas, C. Koukouvinos, Orthogonal Designs of Order 32 and 64 via Computational Algebra. **Australasian J. Combin.** 39, 2007, pp. 39–48.
22. 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.
23. I. Kotsireas, C. Koukouvinos, J. Seberry, New orthogonal designs from weighing matrices. **Australasian J. Combin.** 40, 2008, pp. 99–104.
24. 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.
25. I. S. Kotsireas, C. Koukouvinos, New skew-Hadamard matrices via computational algebra. **Australas. J. Combin.** 41 (2008), pp. 235–248
26. 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.
27. I. S. Kotsireas, C. Koukouvinos, Periodic complementary binary sequences of length 50, **Int. J. Appl. Math.** 21, No. 3, (2008), pp. 509–514.
28. 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.
29. I. Kotsireas, C. Koukouvinos, Hadamard matrices of Williamson type: a challenge for Computer Algebra **Journal of Symbolic Computation** 44, (2009), pp. 271–279.
30. I. Kotsireas, C. Koukouvinos, D. Simos, Inequivalent Hadamard matrices from base sequences **Util. Math.** 78, (2009), pp. 3–9.
31. 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.
32. I. Kotsireas, C. Koukouvinos, New weighing matrices of order $2n$ and weight $2n - 5$ **J. Combin. Math. Combin. Comput.** 70, (2009) pp. 197–205
33. I. Kotsireas, C. Koukouvinos, J. Seberry, Weighing Matrices and String Sorting **Annals of Combinatorics** 13, (2009) pp. 305–313

34. 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
 35. 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
 36. 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
 37. 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.
 38. 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.
 39. 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.
 40. I. Kotsireas, C. Koukouvinos, D. Simos, Inequivalent Hadamard matrices from near normal sequences **J. Combin. Math. Combin. Comput.** 75 (2010), pp. 105-115.
 41. 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.
 42. 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.
 43. 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.
 44. I. S. Kotsireas, C. Koukouvinos, J. Seberry, New weighing matrices constructed from two circulant submatrices **Optimization Letters** 6, (2012) Number 1, pp. 211–217.
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45. I. S. Kotsireas, P. M. Pardalos, D-optimal Matrices via Quadratic Integer Optimization **Journal of Heuristics** to appear
 46. I. S. Kotsireas, C. Koukouvinos, P. M. Pardalos and D. E. Simos, Competent genetic algorithms for weighing matrices **Journal of Combinatorial Optimization** to appear
 47. D. Z. Djokovic, I. S. Kotsireas, New results on D-optimal matrices, **Journal of Combinatorial Designs** accepted

PAPERS IN REFEREED CONFERENCE PROCEEDINGS (14)

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, PASCO'07, ACM, July 27-28, 2007, London ON, Canada, pp. 95-97

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.
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)

PAPERS NON-REFEREED (1)

1. I. S. Kotsireas. Homotopies and polynomial system solving I. Basic Principles. SIGSAM Bulletin, March 2001, vol. 35, no. 1, issue 135, pp. 19-32

CONFERENCE PRESENTATIONS AND PARTICIPATION

1. Troisième Rencontre Mathématique Internationale, 28 Septembre - 2 Octobre 1989, Centre Culturel Européen de Delphes, Delphes, Grèce
2. 1er Conseil de Grecs à l'Étranger, 1st Council of Greeks Abroad, (SAE), 4-5 Décembre 1995, Thessaloniki, Grèce. (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 Grobner Bases, (33YGB) February 2-4, 1998, RISC, Linz, Austria.
10. CASC'98 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. IMACS-ACA'98 August 9-11, 1998, Prague, Czech Republic. (TALK)
16. ISSAC'98 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'99 May 31 - June 4, 1999, TUM, München, 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. IMACS-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. IMACS-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 Universitt, 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. ISSAC2002 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, 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, Crete, Greece
75. CASC 2005, September 12-16, 2005, Kalamata, Greece
76. ASCM 2005, December 10-12, 2005, Seul, 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. Guest Lecture in Professor Doron Zeilberger's Experimental Mathematics class, Rutgers University, March 5, 2009
82. Rutgers Experimental Mathematics Seminar, March 5, 2009

ADMINISTRATIVE AND COMMUNITY SERVICE

Department:

1. PTAC Committee, 2010-2011
2. Undergraduate Advisor, 2008-2009, 2009-2010, 2010-2011
3. Web page Committee, 2005
4. DAP Committee

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 CRC Tier I Dr. R. Melnik) of the Laurier Seminar Series in Computational Science and Applied and Statistical Modelling (CSASM) 2004. web page: <http://www.mmcs.wlu.ca/csasm/> 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011.
5. Environment/occupational Health and Safety Committee, Emergency Warden, 2004-2005
6. Admissions Committee, 2006-2007

University:

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

External:

1. Reader, Ruitong Huang, MSc thesis, University of Waterloo, July 2010
2. Poster Committee, SHARCnet Research Day, York University, May 6, 2010
3. Poster Committee, SHARCnet Research Day, University of Waterloo, May 21, 2009
4. Committee chair, Sherry McGee, MSc thesis, Wilfrid Laurier University, September 2009
5. External Examiner, Wenqin Zhou, PhD thesis, University of Western Ontario, 2007
6. Wilfrid Laurier University Phi Club, "Maple, Visualization and Fractals", November 2006
7. External Examiner, Brad Botting, MSc thesis, University of Waterloo, 2004
8. Promoting Women in Science, PROWIS 2003,
Workshop Title: "The Fractal Geometry of Nature" May 2003
9. Promoting Women in Science, PROWIS 2002,
Workshop Title: "Have fun with the computer while learning useful Mathematics" May 2002