WESTERN UNIVERSITY

CURRICULUM VITAE

 NAME:
 Ján Mináč

 DATE OF BIRTH:
 1953/06/15

 TENURED:
 July 1, 1991

CURRENT EMPLOYMENT

Western University, London, Ontario, Canada

Professor, Department of Mathematics (2003 – present)

CROSS-APPOINTMENT

Western University, London, Ontario, Canada

Professor, Department of Computer Science (July 1, 2011 – June 30, 2016)

ACADEMIC TRAINING

Queen's University, Kingston, Ontario, Canada

Ph.D., Department of Mathematics, 1986

Commenius University, Bratislava, Czechoslovakia

RNDr., Department of Mathematics, 1977 (equivalent to M. Sc.)

B.Sc., Department of Mathematics, 1976

PAST EMPLOYMENT

The University of Western Ontario, London, Ontario, Canada

Associate Professor, Department of Mathematics (1991 – 2003)

Assistant Professor, Department of Mathematics (1989 – 1991)

The University of California at Berkeley, Berkeley, California, U. S. A.

NSF Postdoctoral Fellow, Department of Mathematics (1987 - 1989)

Mathematical Sciences Research Institute, Berkeley, California, U. S. A.

Researcher (1986 - 1987)

Queen's University, Kingston, Ontario, Canada

Teaching Assistant, Department of Mathematics (1983 – 1986)

Mathematical Institute of the Academy of Sciences, Bratislava, Czechoslovakia

Researcher (1976 - 1982)

AWARDS AND HONOURS

Distinguished Research Professorship Award

Distinguished Research Professorship Award 2004-2005, Faculty of Science, The University of Western Ontario

Teaching Awards of Excellence

Canadian Mathematical Society 2013 Excellence in Teaching Award, presented at the CMS Summer Meeting, Halifax, Nova Scotia, June 2013.

University Students' Council and Alumni Western Teaching Award of Excellence 2009-2010, The University of Western Ontario

University Students' Council and Alumni Western Teaching Award of Excellence 1996-1997, The University of Western Ontario

Teaching Honour Roll Awards of Excellence

University Students' Council Teaching Honour Roll Award of Excellence 2012-2013, Western University

Teaching Honour Roll Awards of Excellence (continued)

University Students' Council Teaching Honour Roll Award of Excellence 2011-2012, Western University

University Students' Council Teaching Honour Roll Award of Excellence 2010-2011, Western University

University Students' Council Teaching Honour Roll Award of Excellence 2008-2009, The University of Western Ontario

University Students' Council Teaching Honour Roll Award of Excellence 2007-2008, The University of Western Ontario

SELECTED SCHOLARLY AND PROFESSIONAL (primarily more recent) ACTIVITIES^{*}

*Concentrated on selected recent activities: In particular for the sake of brevity I have omitted most activities from before the 21st century, thus these selected activities should be viewed as examples rather than an exhaustive report.

Editorial Board Activity

- Editor, *Encyclopedia of Mathematics* (European Mathematical Society and Springer, from January 2012)
- Editor, *Algebra Letters* (from August 2012)
- Editor, *Geometry* (from July 2012)
- Editor, *ISRN Algebra* (from June 2011)

American Mathematical Society Activity

• Member of the Committee on Human Rights of Mathematicians (2012-2015)

Faculty of Education Workshop – Western University

• "Hands-On Activities on Integrating Theatre in High School Mathematics Teaching", mathematical theatrical play performed by Ján Mináč and Leslie Hallock, November 30, 2011, Faculty of Education, Western University. (Invited by Professor Immaculate Namukasa, Faculty of Education. Workshop in Faculty of Education program: "Teaching Math and Science through Story, Drama and Song", organized by Dr. George Gadanidis, Faculty of Education, Western University.)

Faculty of Education Collaboration – Western University

• **2011 to present: Collaboration with Professor Namukasa.** We are both interested in innovative teaching, and we share an interest in researching techniques of motivation of students to study mathematics, and the effectiveness of various teaching methods.

Summer School Activity

2012 - 2013: Invited professor/lecturer at advanced mathematical summer school with Ch. Maire and G. Mallé: "Advanced International School on Galois Groups", Universidad del Pais Vasco (University of the Basque Country), Bilbao, Spain, July 16-20, 2012, first week. (Second week, July 23-27, taught by Professor Christian Maire (Université de Franche-Comté, Besançon).) (Invited by Professor Gustavo Alcober, Universidad del Pais Vasco.)

Collaboration with University of Grenoble – Undergraduate and Master's Student Research Work

Summer research work with undergraduate research student, Michal Cizek (University of Grenoble), June - July, 2012 and Master's degree work April – August 2014.

Undergraduate Awards Presentation - Faculty of Science Annual Awards Ceremony

June 2012: Presented six awards to students with special achievement in Mathematics. I mentored and worked closely during the last few years with four of these six students.

Selected Scholarly Activities

2014: Invited lecture, Department of Mathematics, Georgia Institute of Technology, October 3, 2014. (Invited by Professor Kirsten Wickelgren.)
 2013: Invited Teaching Award of Excellence 2013 lecture, Canadian Mathematical Society Summer Meeting, Halifax, Nova Scotia, June 4-7, 2013.
 Invited lecture, Workshop on Number Theory with a View Towards Transcendence and Diophantine Approximation, The Fields Institute and the University of Ottawa, June 8-10, 2013. (Conference In honour of Michel Waldschmidt.)
 Invited speaker, Conference on Torsors, Nonassociative Algebras and Cohomological Invariants, June 10-14, 2013, Fields Institute, Toronto. (Invited by the organizers: Professors V. Chernousov, E. Neher, A. Merkurjev, A. Pianzola, and K. Zainoulline.)

- 2013: Invited participant, *Galois Groups and Brauer Groups Conference*, January 6 - 11, 2013, Technion - Israel Institute of Technology, Haifa, Israel. (Invited by Professor Eli Aljadeff.)
- 2012: Invited participant and lecturer, Canadian Mathematical Society Winter Meeting, *Arithmetic Geometry Special Session*, Montreal, December 7 - 10, 2012. (Invited by Professors Henri Darmon, Eyal Goren and Adrian Lovita.)

Invited speaker, 70th Algebra Days, Carleton University, Ottawa, October 20-21, 2012. (Invited by Professors Luis Ribes and Inna Bumagin.)

Invited participant, "*Lie Algebras, Torsors and Cohomological Invariants*", Banff International Research Station Workshop, September 30 – October 5, 2012.

Invited participant, 31st Ohio State-Denison Mathematics Conference in honor of the 70th birthday of Professor T.-Y. Lam, and the memory of Professor Hans Zassenhaus, Ohio State University, May 25 - 27, 2012, Columbus, Ohio.

Summer Undergraduate Student Research Assistantship Work -- UWO 2010

Summer 2010: Worked with Kristen Duerhammer throughout the summer of 2010.

Scholars Electives Program Work -- UWO 2009-2010

Worked with undergraduate student in the *Scholars Electives Program*, Joanne Colling.

Selected Scholarly Activities

2010 - 2011: Invited participant, American Institute of Mathematics, "Deformation Theory, Patching, Quadratic Forms, and the Brauer Group" workshop, Palo Alto, California, January 17 – 21, 2011. (Organized by Daniel Krashen and Max Leiblich.)

Invited participant, Mathematisches Forschungsinstitut Oberwolfach workshop: "*Cohomology of Finite Groups: Interactions and Applications*", Oberwolfach, Germany, July 25 - July 31, 2010.

2010: Invited participant and lecturer, Tel Aviv University workshop on *"Field Arithmetic"* in honour of the retirement of Professor Moshe Jarden, June 13 - 17, 2010.

2010: Invited participant and lecturer, "*Torsors, Lie Algebras and Galois Cohomology Workshop*", Department of Mathematics and Statistics, University of Ottawa, March 26 - 28, 2010. (Organized by Professors Erhard Neher and Kirill Zainoulline and supported by the University of Ottawa and the Fields Institute, Toronto.)

Summer Undergraduate Student Research Assistantships Work – UWO 2009

Summer 2009: Worked with Justin Mackie and Behzad Nikzad.

Selected Scholarly Activities

2008-2009: Invited two-hour lecture, "Group Theory, Number Theory and Representation Theory Seminar", Department of Mathematics, University of Michigan, Ann Arbor, November 16, 2009. (Invited by Professor Gopal Prasad.)

Invited lecture, American Mathematical Society 2009 Fall Eastern Sectional Meeting, State College, PA (University of Pennsylvania), October 25, 2009.

Co-organizer of Banff Workshop (with V. Chernousov, A. Merkurjev and Z. Reichstein), Banff International Research Station Workshop, "*Linear Algebraic Groups and Related Structures*", September 13 - 18, 2009.

Invited lecture, University of Quebec, Montreal, Canada: *Second Canada-France Congress*, June 1 - 5, 2008.

Organizer, Putnam sessions in problem solving with selected students.

Summer Undergraduate Student Research Assistantship Work – UWO 2008

Summer 2008: Worked with Behzad Nikzad, Justin Raymond and Zack Wolske.

Scholars Electives Program Work -- UWO 2008

Worked with undergraduate students, Behzad Nikzad and Colby Ohlhausen, in the *Scholars Electives Program*.

Undergraduate Awards Presenter --- Faculty of Science Award Ceremony 2008

Presented three undergraduate students with awards of achievement in Mathematical Sciences, Faculty of Science Awards Ceremony, 2008. I served as a mentor to one of these students.

2006-2007: Invited lecture, Conference in Honour of Professor John Labute, Department of Mathematics, McGill University, Montreal, November 14 - 16, 2007.

Co-organizer (with J. Swallow), American Mathematical Society 2007 Spring Southeastern Section Meeting, "Representation Theory and Galois Cohomology in Number Theory", Davidson College, Davidson, North Carolina, March 2 - 4, 2007.

Short-term visitor and invited lecture, Research Institute for Mathematical Sciences (RIMS), Kyoto University, Kyoto, Japan, October 23 - 27, 2006.

Co-organizer of Banff Workshop (with V. Chernousov, R. Elman, A. Merkurjev and Z. Reichstein), Banff International Research Station Workshop, "Algebraic Groups, Quadratic Forms and Related Topics", September 2 - 7, 2006.

Ph.D. Thesis External Examiner, Department of Mathematics and Statistics, McMaster University, Hamilton, Ontario, Canada, September 4, 2007.

Short-term visitor and invited lecture, Department of Mathematics, University of Alberta, Edmonton, Alberta, Canada, August 2007.

Invited participant, Mathematisches Forschungsinstitut Oberwolfach program: "Quadratic Forms and Linear Algebraic Groups", Oberwolfach, Germany, June 25 - July 1, 2006.

Invited participant, Mathematisches Forschungsinstitut Oberwolfach program: "Pro-p Extensions of Global Fields and pro-p Groups", Oberwolfach, Germany, May 21 - 27, 2006.

Visiting scholar and invited lecture, Department of Mathematics, University of British Columbia, Vancouver, BC, April 2006.

Organizer, Putnam sessions in problem solving with selected students.

Summer Undergraduate Student Research Assistantship Work – UWO 2006-07. Worked with Behzad Nikzad, Justin Mackie and Justin Raymond.

2004-2005:

Organizer, Fall lecture series on modular towers with Professor Michael Fried (UC Irvine and MSU Billings), Department of Mathematics, The University of Western Ontario, Fall 2005.

Member of the Scientific Program Committee, MoraviaCrypt Conference, Brno, Czech Republic, June 15 - 22, 2005.

Invited participant, Banff International Research Station Workshop: "Applications of Torsors to Galois Cohomology and Lie Theory", April 23 - 28, 2005.

Short-term invited visitor, Institute for Advanced Study, Princeton, New Jersey, April 2005.

Organizer, workshop on "Galois Modules, Galois Cohomology, Pro-p-groups and Related Topics", The University of Western Ontario, December 10 - 12, 2004.

Co-organizer (with Oliver Röndigs), seminar on Motivic Cohomology, Department of Mathematics, The University of Western Ontario, Winter 2004.

Sponsor of Visiting Professors: Rongzheng Jiao (China) 2004-2006, and John Labute (McGill University, Montreal, Quebec, Canada), Fall 2004.

Organizer, Summer Lectures at Western with Professor Nikita Karpenko (University of Paris 6, Paris, France), August 2004.

2002-2003:

Co-organizer of Banff Workshop (with R. Elman, A.S. Merkurjev, and C. Riehm), Banff International Research Station Workshop: "Quadratic Forms, Algebraic Groups, and Galois Cohomology", October 4 - 9, 2003.

Invited researcher, Focused Research Group program: "Arithmetic of Fundamental Groups", Banff International Research Station, September 7 - 13, 2003.

Co-organizer of Banff Research Team program (with A. Adem, D. Karagueuzian and J. Labute), Research in Teams program: "Field Theory and Cohomology of Groups", Banff International Research Station, April 26 - May 10, 2003.

Visiting Professor, Institut Mathématique de Rennes, France, May 22 - June 5, 2002.

Organizer of "mini-course" with Gregory Berhuy (University of British Columbia) on Essential Dimension, Department of Mathematics, The University of Western Ontario, November 24 - 28, 2003.

2000-2001:

Visiting Professor, Institut Mathématique de Rennes, France, June 1 - 15, 2001.

Researcher (with Louis Mahé), Research in Pairs program, Mathematisches Forschungsinstitut Oberwolfach, Germany, June 16 - 30, 2001.

Visiting scholar, Department of Mathematics, University of California, San Diego, June 5 - 12, 2000 (work with Adrian Wadsworth).

Program Committee Member, Conference on Public-Key Cryptography and Computational Number Theory, Warsaw, Poland, September 11 - 16, 2000.

1999:

Invited lecture, "Must Mathematical Instruction be Infinitely Boring and Deadly Poisonous?", <u>Fall Perspectives on Teaching</u> workshop, The University of Western Ontario, September 1, 1999.

Member, Member of Mathematical Sciences Research Institute, Berkeley, California, Fall 1999.

1981: Author, Czechoslovakian National Television presentation: "*From the Life of Trigonometric Functions*".

REFERRING AND REVIEWING

From 1988 I have refereed a number of articles for various mathematical journals, some book reviews, proceedings, grant applications, fellowship applications, and cases for professorial promotion. The names of some of these are listed below in alphabetical order.

Acta Arithmetica, American Mathematical Monthly, Annales des sciences mathématiques du Québec, Ars Combinatoria, Canadian Journal of Mathematics, Canadian Mathematical Bulletin, Central European Journal of Mathematics, Communications in Algebra, CONICYT (Chilean governmental organization: National Commission for Scientific and Technological Investigation) FONDECYT Proposal, Fields Institute Communication Series (Proceedings on Valuation Theory), FWF Der Wissenschaftsfonds, Vienna, Austria (referee of research funding application, Department of Natural and Technical Sciences), Guggenheim Fellowships, Indian Journal of Mathematics, International Electronic Journal of Algebra, Israel Journal of Mathematics, Israel Science Foundation grant proposal, Journal of Algebra, Journal of Algebra and its Applications, Journal of Algebra and Number Theory, Journal of Integer Sequences, Journal of Number Theory, Journal of Pure and Applied Algebra, Journal of Symbolic Computations, Journal of Transformation Groups, Magdalene College Cambridge: JRF Fellowship Application, Mathematische Annalen, Mathematische Zeitschrift, National Science Foundation applications, National Security Agency Grant Proposal (USA), Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant Applications, New York Journal of Mathematics, Proceedings of the IASc-Math. Sciences, Proceedings - Mathematical Sciences, Indian Academy of Sciences, Southeast Asian Bulletin of Mathematics.

BOOK REVIEWS AND BOOK CONSULTATIONS:

Cambridge University Press and World Scientific Publishing.

CURRICULUM VITAE

J. Mináč 10

PROFESSORIAL PROMOTION CASES:

Ben-Gurion University, Emory University, Harish-Chandra Research Institute, School of Mathematics, India, Pennsylvania State University.

MEMBERSHIP IN LEARNED SOCIETIES

Canadian Mathematical Society American Mathematical Society Mathematical Association of America

PUBLICATIONS

PAPERS IN REFEREED JOURNALS

- 1. J. Mináč. On the density of values of some arithmetical functions. *Matematické obzory* (Slovak) **12** (1978), 41-45.
- 2. J. Mináč. Some counterexamples in *p*-adic analysis. *Math. Slovaca* **30**, No. 3 (1980), 305-311.
- 3. J. Mináč. The distributivity property of valuation rings. *Math. Slovaca* **31**, No. 2 (1981), 187-192.
- 4. J. Mináč. The coverings of rings by valuation rings. *Math. Slovaca* **32**, No. 2 (1981), 121-126.
- 5. J. Mináč. The distributivity property of finite intersections of valuation rings. *Math. Slovaca* **34**, No. 3 (1984), 277-279.
- 6. J. Mináč. Unit fractions in fields. Math. Slovaca 35, No. 1 (1985), 23-29.
- 7. J. Mináč. On fields for which the number of orderings is divisible by a high power of 2. *C.R. Math. Rep. Acad. Sci. Canada* **VII**, No. 3 (1985), 183-188.
- 8. J. Mináč. On fields for which the number of orderings is divisible by a high power of 2, II. *C.R. Math. Rep. Acad. Sci. Canada* **VII**, No. 4 (1985), 221-226.
- 9. J. Mináč. On fields for which the number of orderings is divisible by a high power of 2, III. *C.R. Math. Rep. Acad. Sci. Canada* **VII**, No. 5 (1985), 297-301.
- 10. J. Mináč. Stability and cohomological dimension. C. R. Math. Rep. Acad. Sci. Canada **VIII**, No. 1 (1986), 13-18.
- 11. J. Mináč. Galois groups of some 2-extensions of ordered fields. *C. R. Math. Rep. Acad. Sci. Canada* **VIII**, No. 2 (1986), 103-108.
- 12. J. Mináč. Demushkin groups and Hilbert fields. *C. R. Math. Rep. Acad. Sci. Canada* **VIII**, No. 3 (1986), 349-354.
- 13. J. Mináč. Corrigendum for Galois groups of some 2-extensions of ordered fields. *C. R. Math. Rep. Acad. Sci. Canada* **VIII**, No. 4 (1986), 261.
- 14. J. Mináč. Poincaré groups and ordered fields. C. R. Math. Rep. Sci. Canada VIII, No. 4 (1986), 255-260.
- 15. J. Mináč. Poincaré polynomials and ordered fields. *C. R. Math. Rep. Sci. Canada* **VIII**, No. 6 (1986), 411-416.

- 16. J. Mináč. A remark about sets O(n) in the theory of ordered fields. C. R. Math. Rep. Acad. Sci. Canada, Vol. IX, No. 2 (1987), 125-129.
- 17. J. Mináč. Stability index and the *u*-invariant. *C. R. Math. Rep. Sci. Canada*, Vol. IX, No. 3 (1987), 167-171.
- 18. J. Mináč. Stability indices and Poincaré polynomials. *C. R. Math. Acad. Sci. Canada*, Vol. IX, No. 5 (1987), 253-257.
- 19. J. Mináč. Quaternion fields inside pythagorean closure. *J. Pure Appl. Algebra* 57 (1989), 79-82.
- 20. J. Mináč. Classes of quaternion algebras in the Brauer group. *Rocky Mountain J. Math.* **19**,3 (1989), 819-831.
- 21. J. Mináč and M. Spira. u = 4 and quadratic extension. *Rocky Mountain J. Math.* **19**,3 (1989), 835-845.
- 22. J. Mináč and M. Spira. Formally real fields, C-fields and W-groups. *Math. Zeit.* **205** (1990), 519-530.
- 23. J. Mináč and R. Ware. Demushkin groups of rank ℵ₀ as absolute Galois groups. *Manuscripta Math.* **73** (1991), 411-421.
- 24. J. Mináč and T. L. Smith. C-fields and Galois groups. J. Algebra 137 (1991), 1-11.
- 25. J. Mináč and R. Ware. Pro-2-Demushkin groups of rank ℵ₀ as Galois groups of maximal 2-extensions of fields. *Math. Ann.* **292** (1992), 337-353.
- 26. J. Mináč and T. L. Smith. W-groups and values of binary forms. *J. Pure Appl. Algebra* **87** (1993), 61-78.
- 27. J. Mináč and C. Reis. Trigonometry in finite fields. Expo. Math. 11 (1993), 97-108.
- 28. J. Mináč. Remarks on Merkurjev's investigations of the u-invariant. *Contemp. Math.,* American Mathematical Society, **155** (1994), 333-338.
- 29. J. Mináč. A remark on the values of the Riemann zeta function. *Expo. Math.* **12** (1994), 459-462.
- J. Mináč and T. L. Smith. Decomposition of Witt rings via Galois groups. *Canad. J. Math.* 47 (1995), 1274-1289.
- 31. J. Mináč and M. Spira. Witt rings and Galois groups. Ann. Math. 144 (1996), 35-60.

- 32. A. Adem, D. Karagueuzian and J. Mináč. Topological models and the cohomology of Galois groups. *C. R. Acad. Sci. Paris* **326**,1 (1998), 919-924.
- 33. A. Adem, D. Karagueuzian and J. Mináč. The cohomology of Galois groups. *Adv. Math.* **148** (1999), 105-160.
- 34. J. Mináč and T. L. Smith. *W*-groups under quadratic extensions of fields. *Canad. J. Math.* **52** (2000), no. 4, 833-848.
- 35. A. Adem, W. Gao, D. Karagueuzian and J. Mináč. Field theory and the cohomology of some Galois groups. *J. Algebra* **235** (2001), no. 2, 608-635.
- 36. J. Mináč. Newton's identities once again! Amer. Math. Monthly 110 (2003), no. 3, 232-234.
- 37. J. Mináč and J. Swallow. Galois module structure of *p*th-power classes of extensions of degree *p. Israel J. Math.* **138** (2003), 29-42.
- 38. J. Mináč and Z. Reichstein. Trace forms of Galois extensions in the presence of a fourth root of unity. *Int. Math. Res. Not.* (2004), no. 8, 389-410.
- 39. L. Mahé, J. Mináč and T. L. Smith. Additive structure of multiplicative subgroups of fields and Galois theory. *Doc. Math.* **9** (2004), 301-355.
- 40. J. Mináč and J. Swallow. Galois embedding problems with cyclic quotient of order *p. Israel J. Math.* **145** (2005), 93-112.
- 41. J. Mináč and J. Swallow. Galois modules appearing as pth-power classes of units of extensions of degree *p. Math. Zeit.* **250** (2005), no. 4, 907-914.
- 42. N. Lemire, J. Mináč and J. Swallow. When is Galois cohomology free or trivial? *New York J. Math.* **11** (2005), 291-302.
- 43. J. Mináč, A. Schultz and J. Swallow. Galois module structure of pth-power classes of cyclic extensions of degree pⁿ. *Proc. London Math. Soc.* (3) **92** (2006), no. 2, 307-341.
- 44. J. Labute, N. Lemire, J. Mináč and J. Swallow. Demuškin groups, Galois modules, and the elementary type conjecture. *J. Algebra* **304** (2006), no. 2, 1130-1146.
- 45. A. Dhillon and J. Mináč. A motivic Chebotarev density theorem. *New York J. Math.* **12** (2006), 123-141.
- 46. R. Dwilewicz and J. Mináč. The Hurwitz zeta function as a convergent series. *Rocky Mountain J. Math.* **36** (2006), no. 4, 1191-1219.
- 47. R. Dwilewicz, J. Mináč, A. Schultz and J. Swallow. Hilbert 90 for biquadratic extensions. *Amer. Math. Monthly* **114** (2007), no. 7, 577-587.

- 48. J. Mináč and A. R. Wadsworth. Division algebras of prime degree and maximal Galois *p*-extensions. *Canad. J. Math.* **59** (2007), no. 3, 658-672.
- 49. J. Labute, N. Lemire, J. Mináč and J. Swallow. Cohomological dimension and Schreier's formula in Galois cohomology. *Canad. Math. Bull.* **50** (2007), no. 4, 588-593.
- 50. D. Benson, S. Chebolu, D. Christensen and J. Mináč. The generating hypothesis for the stable module category of a *p*-group. *J. Algebra.* **310** (2007), no. 1, 428-433.
- 51. N. Lemire, J. Mináč and J. Swallow. Galois module structure of Galois cohomology and partial Euler-Poincaré characteristics. *J. Reine Angew. Math.* **613** (2007), 147-173.
- 52. D. Benson, N. Lemire, J. Mináč and J. Swallow. Detecting pro-*p* groups that are not absolute Galois groups. *J. Reine Angew. Math.* **613** (2007), 175-191.
- 53. S. Chebolu, D. Christensen and J. Mináč. Ghosts in modular representation theory. *Adv. Math.* **217** (2008), no. 6, 2782-2799.
- 54. S. Chebolu, D. Christensen and J. Mináč. Groups which do not admit ghosts. *Proc. Amer. Math. Soc.* **136** (2008), no. 4, 1171-1179.
- 55. G. Bhandari, N. Lemire, J. Mináč and J. Swallow. Galois module structure of Milnor K-theory in characteristic *p. New York J. Math.* **14** (2008), 215-224.
- 56. J. Mináč, A. Schultz and J. Swallow. Galois module structure of Milnor K-theory mod p^s in characteristic *p. New York J. Math.* **14** (2008), 225-233.
- 57. J. Mináč, A. Schultz and J. Swallow. Automatic realizations of Galois groups with cyclic quotient of order pⁿ. *J. Théor. Nombres Bordeaux* **20** (2008), no. 2, 419-430.
- 58. S. Chebolu and J. Mináč. Auslander-Reiten sequences as appetizers for homotopists and arithmeticians. *Ann. Sci. Math. Québec* **32** (2008), no. 2, 139-157.
- 59. J. Carlson, S. Chebolu and J. Mináč. Freyd's generating hypothesis with almost split sequences. *Proc. Amer. Math. Soc.* **137** (2009), no. 8, 2575-2580.
- 60. N. Lemire, J. Mináč, A. Schultz and J. Swallow. Hilbert 90 for Galois cohomology. *Comm. Algebra* **38** (2010), no. 1, 361-372.
- N. Lemire, J. Mináč, A. Schultz and J. Swallow. Galois module structure of Galois cohomology for embeddable cyclic extensions of degree pⁿ. J. London Math. Soc. (2) 81 (2010), no. 3, 525-543.
- 62. S. Chebolu, J. Mináč and C. Reis. Reciprocity laws for representations of finite groups. *Ann. Sci. Math. Québec* **34** (2010), no. 1, 37-61.

- 63. D. Karagueuzian, J. Labute and J. Mináč. The Bloch-Kato conjecture and Galois theory. *Ann. Sci. Math. Québec* **35** (2011), no. 1, 63-73.
- 64. J. Mináč, A. Schultz and J. Swallow. Cyclic algebras, Schur indices, norms, and Galois modules. *Ann. Sci. Math. Québec* **35** (2011), no. 1, 123-136.
- 65. J. Carlson, S. Chebolu and J. Minac. Finite generation of Tate cohomology. *AMS J. Representation Theory* **15** (2011), 244-257.
- 66. J. Labute and J. Mináč. Mild pro-2 groups and 2-extensions of Q with restricted ramification. *J. Algebra* **332** (2011), 136-158.
- 67. I. Efrat and J. Mináč. On the descending central sequence of absolute Galois groups. *Amer. J. Math.* **133** (2011), no. 6, 1503-1532.
- 68. S. Chebolu and J. Mináč. Counting irreducible polynomials over finite fields using the inclusion-exclusion principle. *Math. Mag.* **84** (2011), no. 5, 369-371.
- 69. S. Chebolu, I. Efrat and J. Mináč. Quotients of absolute Galois groups which determine the entire Galois cohomology. *Math. Ann.* **352** (2012), no. 1, 205-221.
- 70. S. Chebolu, D. Christensen and J. Mináč. Freyd's generating hypothesis for groups with periodic cohomology. *Canad. Math. Bull.* **55** (2012), no. 1, 48-59.
- 71. I. Efrat and J. Mináč. Small Galois groups that encode valuations. *Acta Arith.* **156** (2012), no. 1, 7-17.
- 72. S. Chebolu and J. Mináč. Representations of the miraculous Klein group. *Ramanujan Math. Soc. Newsletter* **22** (2012), no. 1, 135-145.
- 73. J. Mináč and S. O. Tohaneanu. From spline approximation to Roth's equation and Schur functors. *Manuscripta Math.* **142** (2013), no. 1-2, 101-126.
- 74. P. Guillot and J. Mináč. Milnor K-theory and the graded representation ring. *Journal of K-theory* **13** (2014), 447-480.
- J. Mináč, J. Swallow and A. Topaz. Galois module structure of (lⁿ)th classes of fields. Bull. London Math. Soc. 46 (2014), no. 1, 143-154.

PAPERS IN REFEREED CONFERENCE PROCEEDINGS

76. J. Mináč. Poincaré polynomials; stability indices and number of orderings I. *Advances in Number Theory, Canadian Number Theory Association Proceedings*, Clarendon Press Oxford (1993), 515-528.

PAPERS IN REFEREED CONFERENCE PROCEEDINGS (continued)

- J. Mináč and A. R. Wadsworth. The *u* invariant of algebraic extensions, K-Theory and Algebraic Geometry: Connections with Quadratic Forms and Division Algebras. Editors: B. Jacob and A. Rosenberg. *Proc. Symp. Pure Math.* 58,2 (1995), 333-358. American Mathematical Society, Providence, Rhode Island.
- W. Gao and J. Mináč. Milnor's conjecture and Galois theory I. Great Lakes Proceedings, editor: Victor Snaith. *Fields Institute Communications*, 16 (1997), 95-110. American Mathematical Society, Providence, Rhode Island.
- W. Gao, D. Leep, J. Mináč and T. L. Smith. Galois groups over nonrigid fields. Proceedings of the International Conference on Valuation Theory and its Applications, Vol. II (Saskatoon, 1999), *Fields Institute Communications*, American Mathematical Society **33** (2003), 61-77.
- S. Chebolu and J. Mináč. Absolute Galois groups viewed from small quotients and the Bloch-Kato conjecture. *New topological contexts for Galois theory and algebraic geometry (BIRS 2008)*, 31-47, Geom. Topol. Monogr. 16, *Geom. Topol. Publ., Coventry*, 2009.

PAPERS ACCEPTED FOR PUBLICATION IN REFEREED JOURNALS

- S. Chebolu, J. Mináč and C. Quadrelli. Detecting fast solvability of equations via small powerful Galois groups. *Transactions of the AMS*, to appear. (ArXiv: 1310.7623v2 [math.NT].)
- 82. J. Mináč and N. D. Tan. Triple Massey products and Galois theory. *Journal of the European Mathematical Society*, to appear.

PAPERS SUBMITTED FOR PUBLICATION IN REFEREED JOURNALS

- I. Efrat and J. Mináč. Galois groups and cohomological functors. (27 pages typeset in Latex.)
- 84. J. Mináč and N. D. Tan. The kernel unipotent conjecture and Massey products on an odd rigid field. (Submitted.)
- 85. J. Mináč and N. D. Tan. Triple Massey products over global fields. (Submitted.)
- 86. J. Mináč, M. Rogelstad and N. D. Tan. How fast do Zassenhaus filtrations of pro-p-groups descend? (Submitted.)
- 87. S. Chebolu, J. Mináč and A. Schultz. Galois p-groups and Galois modules. (Submitted.)
- 88. J. Mináč and N. D. Tan. Counting Galois $U_4(\mathbf{F}_p)$ -extensions using Massey products. (Submitted.)

BOOKS IN PREPARATION

- J. Mináč, A. Schultz and J. Swallow. *Galois Modules in Action*. (Springer, the American Mathematical Society and Cambridge University Press expressed interest in the publication of this book.)
- 90. S. Chebolu, J. Labute, Ch. Maire and J. Mináč. *From Class Field Theory to Mild Galois Groups*.

BOOK REVIEWS

- 91. Review of K. Szymiczek: Bilinear Algebra: An Introduction to the Algebraic Theory of Quadratic Forms. *Bull. London Math. Soc.* **32** (2000), 117-118.
- 92. Review of D. B. Shapiro: Composition of Quadratic Forms. De Gruyter Expositions in Mathematics **33** (2000). *Bull. London Math. Soc.* **33** (2001), 631-633.
- 93. Review of A. Ledet: Brauer Type Embedding Problems. *Fields Inst. Monographs* **21**, American Mathematical Society, 2005. *CMS Notes* **38** (2006), no. 5, 7-8.

SURVEY PAPERS (Research and Education)

- 94. R. Dwilewicz and J. Mináč. Hipoteza Riemanna, Czesc I. *Polish Journal DELTA*, September 1997, 1 3.
- 95. R. Dwilewicz and J. Mináč. Hipoteza Riemanna, Czesc II. *Polish Journal DELTA*, November 1997, 12 15.
- 96. R. Dwilewicz and J. Mináč. Values of the Riemann zeta function at integers. *Materials Matemàtics*, Volume 2009, 1 26.
- 97. S. Chebolu, I. Efrat and J. Mináč. On a small quotient of the big absolute Galois group. *Oberwolfach Reports* **32** (2010), 14-17.

BANFF INTERNATIONAL RESEARCH STATION REPORTS

- A. Adem, D. Karagueuzian, J. Labute and J. Mináč. Report on Research in Teams event: *Field Theory and Cohomology of Groups*, Banff International Research Station, Banff, Alberta, April 26 - May 10, 2003.
- 99. R. Elman, A. S. Merkurjev, J. Mináč and C. Riehm. Report on workshop: *Quadratic Forms, Algebraic Groups, and Galois Cohomology*, Banff International Research Station, Banff, Alberta, October 4 - 9, 2003.

BANFF INTERNATIONAL RESEARCH STATION REPORTS (continued)

- 100. V. Chernousov, R. Elman, A. S. Merkurjev, J. Mináč and Z. Reichstein. Report on workshop: *Algebraic Groups, Quadratic Forms and Related Topics*, Banff International Research Station, Banff, Alberta, September 2 - 7, 2006.
- 101. V. Chernousov, A. S. Merkurjev, J. Mináč and Z. Reichstein. Report on workshop: *Algebraic Groups, Quadratic Forms and Related Topics*, Banff International Research Station, Banff, Alberta, September 13 - 18, 2009.

GRANTS IN AID OF RESEARCH

Since 1989 I have received continuous NSERC Individual Research Grant funding and Discovery Research Grant funding. During this time I have also received various other grants from Western University and from the University of British Columbia.

• My NSERC grant funding for the period of 2012 – 2017 is \$175,000.

CHIEF SUPERVISOR OF GRADUATE STUDENTS

Name	Period of Study	Degree	Title of Thesis	
F. B. Golmakani	2012-2014 ⁺⁺	Ph.D. 2014	"Classification of W-groups of Pythagorean	
			formally real fields"	
P. Deshpande	2007-2011 ⁺	Ph.D. 2011	"Arrangements of submanifolds and the	
			tangent bundle complement"	
C. Quadrelli	2010***	M.Sc. 2010	"The maximal pro-p-quotient of an absolute	
			Galois group"	
G. Combariza	2006-2010***	Ph.D. 2010	"Descending central series of free pro-p-	
			groups"	
V. Shirbisheh	2006-2007*	Ph.D. 2007	"On certain Galois embedding problems over	
			p-adic fields"	
G. Bhandari	2001-2005	Ph.D. 2005	"Milnor K-theory as Galois modules in	
			characteristic p"	
D. McQuillan	1992-1998	Ph.D. 1998	"Quadratic forms and Galois theory"	
J. Sewchand	1996-1997	M. Sc. 1997		
W. Gao	1993-1995	Ph.D. 1996	"Galois groups of a maximal 2-extension of a	
			field"	
J. Sheriff	1990-1991	M. Sc. 1991		

FORMER GRADUATE STUDENTS

(*From 2003-2005, V. Shirbisheh was supervised by M. Khalkhali, Western University) (*Joint supervision with G. Denham, Department of Mathematics, Western University) (***Joint supervision with Thomas Weigel, University of Milano-Bicocca.)

(⁺⁺Joint supervision with Matthias Franz, Western University.)

PRESENT PH.D. STUDENTS

Name	Period of Study	
A. Al-Khairy	2011 - present	
M. Ataei Jaliseh	2012 - present	
J. Doliskani	2011 - present (joint with Éric Schost, Department of	
	Computer Science, Western University)	
C. Quadrelli	2011 - present (joint with Thomas Weigel, University of	
	Milano-Bicocca, Italy)	
M. Rogelstad	2010 - present	

(^{**}Joint supervision with A. Adem, Department of Mathematics, University of British Columbia. Transferred to UWO to begin Ph.D. studies with Ján Mináč, September 2008. Worked with Ján while still at UBC during 2006-2008 until German came to UWO in Fall 2008.)

SUPERVISION OF MASTER'S DEGREE STUDENTS

Name	Period of Study	Degree
M. Čižek	June 2014 - present	
M. Albaity	January 2012 - 2013	M.Sc. completed 2013
M. Althagafi	January 2011 - 2012	M.Sc. completed 2012
C. Quadrelli	January 2010 - July 2010 (joint with Thomas	M.Sc. completed 2010
	Weigel (University of Milano-Bicocca)	_

SUPERVISION OF POSTDOCTORAL FELLOWS

Name	Period of Study		
J. Blondeau	2012 - 2013 (October 2013 completed Postdoctoral Fellowship)		
N. Tan	2012 - present		