Tony Shaska

Department of Mathematics and Statistics
Oakland University
Rochester, MI 48309

Phone:	248-760-7447
E-mail:	shaska@oakland.edu
Webpage:	www.risat.org/people/shaska/
Others:	ArXiv Google Scholar

Research areas

Algebraic and Arithmetic Geometry.
Algebraic curves, automorphisms, hyperelliptic and superelliptic curves, Hurwitz spaces and moduli spaces of curves, weighted projective spaces and their heights, minimal models of curves, cryptography, etc.

Education

Sep.96-Mar.01	**Ph.D. in Mathematics**, *The University of Florida*, Gainesville, FL.
	Thesis: Curves of genus two covering elliptic curves
Jan.92-Dec.94	**Bachelor of Science, Mathematics**, *University of Michigan*, (Highest Distinction).
	Major: Mathematics; Minor: Computer Science, GPA: 3.95/4.0, Major GPA: 4.0/4.0

Experience

2007-current	**Editor in Chief**, *Albanian J. Math.*.
May 2009	**Professor of Mathematics**, *MASH*, Albania.
Jan.08 -Dec.10	**Rector**, University of Vlora, Vlora, Albania.
2008-current	**Associate Professor**, *Department of Mathematics and Statistics*, Oakland University, MI.
Aug.05-Aug.08	**Assistant Professor**, *Department of Mathematics and Statistics*, Oakland University, MI.
Aug.03-Jun.05	**Assistant Professor**, *Department of Mathematics*, University of Idaho, ID.
Aug.01-Jun.03	**Visiting Assistant Professor**, *Department of Mathematics*, University of California–Irvine, CA.
Aug.96-May.01	**Teaching Assistant**, *Department of Mathematics*, University of Florida, FL.
Jan.95-Aug.96	**Programer/Consultant**, *CBSI, Farmington Hills*, MI.

Long term visits

Winter 15	**Princeton University**, *Sabbatical*, Department of Mathematics, Host: Manjul Bhargava.
Jun. 13	**Linkoping University**, *Linkoping*, Sweden, Host: Milagros Izquierdo.
Summer 12	**University of Pristina**, *Pristina*, Kosova, Host: Qëndrim Gashi.
Oct. 09	**Universidad de Cantabria-Santander**, *Spain*, Host. J. Gutierrez.
Winter 08	**University of Vlora**, *Sabbatical, Department of Mathematics*, Vlora, Albania.
Jun. 07	**Boston University**, *Department of Mathematics*, Host: Emma Previato.
Summer 07	**Maria Curie-Sklodowska University**, *Lublin*, Poland, Host: Vasyl Ustimenko.
Summer 06	**Institut für Experimentelle Mathematik**, *Essen*, Germany, Host: Helmut Voelklein.
Aug. 05	**Institute of Mathematics and Applications (IMA)**, *Quantum Computation*, Minnesota.
Summer 03	**Universidad de Cantabria-Santander**, *Spain*, Host. J. Gutierrez.
Summer 03	**Institut für Experimentelle Mathematik**, *Essen*, Germany, Host: Gerhard Frey.
Summer 01	**Institut für Experimentelle Mathematik**, *Essen*, Germany, Host: Gerhard Frey.
Dec. 00	**Mathematical Sciences Research Institute**, *Arithmetic Geometry*.
Jan.-Aug. 00	**Universität Erlangen-Nürnberg**, *DFG Fellowship*, Germany, Host: Karl Strambach.
Fall 99	**Mathematical Sciences Research Institute**, *Berkeley*, CA.
Jun. 99	**Institute for Advanced Study/Park City Institute**, *Arithmetic Geometry*, Park City, Utah.
Summer 98	**IWR**, *University of Heidelberg*, Heidelberg, Germany, Host: Heinrich Matzat.

Awards and Grants

2014 **Nato Advanced Study Institute**, *Hyperelliptic Curve Cryptography*, ISEG. EAP.ASI 984724, €80 000.

2012 **National Security Agency**, *Conference Grant*, NSA # H982301210275, $20 000.

2007-10 **National Science Foundation**, *REU*, Oakland University, Co-PI: $342 899.

2008 **Nato Advanced Study Institute**, *New challenges in digital communications*, ICS.EAP.ASI 982903, €85 200.

2007 **National Science Foundation**, *Applications of Computer Algebra*, Oakland University, $20 000.

2005 **National Security Agency**, *Computational Aspects of Algebraic Curves, Univ. of Idaho*, $12 000.

2004 **National Science Foundation**, *NSF-Epscor S0-511*, University of Idaho, NSF, $15 000.

2000 **Deutsche Forschungsgemeinschaft**, *Friedrich-Alexander-Universität Erlangen-Nürnberg*, DM 24000.

Editorial

Journals

2007-present **Founding Editor and Editor in Chief**, *Albanian Journal of Mathematics*.

Editor for volume proceedings

2021 **Abelian varieties and number theory**, *Contemporary Mathematics*, Celebration of Gerhard Frey's 75th birthday, (AMS),, Moshe Jarden, Tony Shaska (Eds.).

2020 **Integrable systems and Algebraic Geometry**, *Volume 1, Cambridge University Press, ISBN: 9781108773287*, Ron Donagi and Tony Shaska (Eds.).

2020 **Integrable systems and Algebraic Geometry**, *Volume II, Cambridge University Press, ISBN: 9781108773355*, Ron Donagi and Tony Shaska (Eds.).

2019 **Algebraic curves and their applications**, *Contemporary Mathematics, Volume: 724; 19; 344 pp; Softcover MSC: Primary 11; 14; Print ISBN: 978-1-4704-4247-7*, L. Beshaj, T. Shaska (Eds.).

2018 **Higher Genus Curves in Mathematical Physics and Arithmetic Geometry**, *Contemporary Mathematics, (703)*, 18. vii+222 pp. ISBN: 978-1-4704-2856-3, A. Malmendier, T. Shaska (Eds.).

2015 **Advances on superelliptic curves and their applications**, *NATO Science for Peace and Security Series - D: Information and Communication Security*, Vol 41. 15, L. Beshaj, T. Shaska, E. Zhupa.

2009 **Algebraic Aspects of Digital Communications**, *NATO Science for Peace and Security Series, D: Information and Communication Security*, Vol. 24. 09. viii+285 pp, T. Shaska (Ed).

2007 **Advances in coding theory and cryptology** , *Series: Coding Theory and Cryptography*, Vol. 3, World Scientific Publishing, xii+256 pp, W. C. Huffman, D. Joyner, T. Shaska, V. Ustimenko (Eds).

2005 **Computational aspects of algebraic curves**, *Lecture Notes in Computing Series*, World Scientific, vol. 13, (05), 288pp, ISBN 981-256-459-4, T. Shaska (Ed).

2005 **Progress in Galois Theory**, *Proceedings of J. Thompson's 70-th birthday*, Springer Series: Developments in Mathematics, Vol. 12, 168 pp, H. Völklein, T. Shaska (Eds.).

Editor for special issues of journals

2018 **Special issue in memory of Kay Magaard** , *Albanian J. Math. (2018)*.

2013 **Computational algebraic geometry and its applications**, *Appl. Algebra Engrg. Comm. Comput. Vol. 24, 1-98, 13.*.

2013 **Computational Algebraic Geometry**, *J. Symbolic Comp. Vol. 57, Oct. 13, 1-78*.

2010 **Applications of Computer Algebra**, *Albanian J. Math. Vol 4, No 4, (10)*.

2008 **New challenges in digital communications**, *Albanian J. Math., Vol 2, No 3, (08)*.

2007 **Computational Algebraic Geometry**, *Albanian J. Math., Vol 1., No 4, (07)*..

2007 **Coding theory and cryptography**, *Serdica J. Comput., Vol. I, No. 2, 07*.

Papers

Journal articles

39. A. Obus, T. Shaska; Superelliptic curves with many automorphisms and CM Jacobians (submitted) Mathematics of Computation

38. A. Clingher, A. Malmendier, T. Shaska; Geometry of Prym varieties for special bielliptic curves of genus three and five (submitted)

37. R. Hidalgo, S. Quispe, T. Shaska; On generalized superelliptic Riemann surfaces (submitted) Comm. in Algebra

36. A. Clingher, A. Malmendier, T. Shaska; On isogenies among certain Abelian varieties Michigan Math. 2020, to appear

35. A. Elezi, T. Shaska; Reduction of binary forms via the hyperbolic center of mass Lobachevskii Journal of Mathematics 2020, to appear

34. L. Beshaj, A. Elezi and T. Shaska; Isogenous components of Jacobian surfaces European Journal of Mathematics 2020, (to appear)

33. L. Beshaj, J. Gutierrez, T. Shaska; Weighted greatest common divisors and weighted heights Journal of Number Theory Vol. 203, 2020, 319-346.

32. A. Clingher, A. Malmendier, T. Shaska; Six line configurations and string dualities Commun. Math. Phys. (2019) 371: 159–196.

31. A. Malmendier, T. Shaska; From hyperelliptic to superelliptic curves Albanian J. Math. Vol. 13. (2019), No. 1. pg. 107-200.

30. Shuichi Otake and Tony Shaska; Some remarks on the non-real roots of polynomials Cubo, (2019), 67-93. 18, no. 1, 33-35.

29. Gerhard Hiss and Tony Shaska; Kay Magaard (1962–18) Special issue in honor of Kay Magaard, Albanian J. Math. Vol. 12 2018, no. 1, 33-35.

28. A. Malmendier and T. Shaska; A universal pair of genus-two curves from Siegel modular forms SIGMA. Symmetry, Integrability and Geometry. Methods and Applications 13, (2017), 089, 17 pages

27. A. Malmendier and T. Shaska The Satake sextic in F-theory Journal of Geometry and Physics vol. 120, (2017), 290-305

26. T. Shaska and C. Shor 2-Weierstrass points of genus 3 hyperelliptic curves with extra automorphisms Comm. in Algebra 45 (2017), no. 5, 1879 - 1892.

25. T. Shaska Genus two curves with many elliptic subcovers Comm. in Algebra 44 (2016), Nr. 10, 4450-4466

24. T. Shaska and C. Shor Theta functions and complete weight enumerators for codes over imaginary quadratic fields Des. Codes Cryptogr. vol 76, 2015, 217-235

23. T. Shaska and F. Thompson Bielliptic curves of genus 3 in the hyperelliptic moduli Appl. Algebra Engrg. Comm. Comput. Volume 24, 2013, 387-412

22. T. Shaska Some remarks on the hyperelliptic moduli of genus 3 Communications in Algebra 42 (9), 2014, 4110–4130

21. A. Elezi and T. Shaska Quantum codes from superelliptic curves Albanian J. Math. Vol. 5. Nr. 4, 2011, pg. 175–191

20. L. Beshaj, V. Hoxhaj, T. Shaska On superelliptic curves of level n and their quotients Albanian J. Math., Vol. 5. Nr. 3, pg. 115-138, 2011

19. T. Shaska, C. Shor, G. Wijesiri Codes over rings of size p^2 and lattices over imaginary quadratic fields Finite Fields Appl. 16 (2010), no. 2, 75–87

18. K. Magaard, T. Shaska, H. Voelklein Genus 2 curves that admit a degree 5 map to an elliptic curve Forum Math. 21, (2009), no. 3, 547–566

17. T. Shaska and V. Ustimenko On the homogeneous algebraic graphs of large girth and their applications Linear Algebra Appl. 430 (2009), no. 7, 1826–1837

16. T. Shaska and V. Ustimenko On some applications of graphs to cryptography and turbocoding Albanian J. Math., Vol 2, Nr. 3, 2008, 249 − 255.

15. N. Pjero, M. Ramosaco, T. Shaska Degree even coverings of elliptic curves by genus two curves Albanian J. Math. vol. 2. Nr. 3, 2008, 241-248

14. T. Shaska Quantum codes from algebraic curves with automorphisms Condensed Matter Physics Vol. 11, 2008, No 2 (54), 383-396.

13. T. Shaska and R. Sanjeewa Determining equations of families of cyclic curves Albanian J. Math. Vol 2, Nr. 3, 2008, 199-213

12. T. Shaska, G. Wijesiri, S. Wolf, S. Woodland Degree four coverings of elliptic curves by genus two curves Albanian J. Math. vol. 2. Nr. 4. 2008, 307-318

11. T. Shaska and G. Wijesiri Codes over rings of size four, Hermitian lattices, and corresponding theta functions Proc. Amer.Math. Soc. 136 (2008), no.3, 849-857

10. E. Previato, T. Shaska, G. Wijesiri) Thetanulls of cyclic curves of small genus Albanian J. Math. vol. 1, Nr. 4, 2007, 253-270

9. T. Shaska Some open problems in computational algebraic geometry Albanian J. Math vol I, Nr. 3, 07, 297-319

8. T. Shaska and Q. Wang Automorphism groups of AG-codes based on C_{ab} curves Serdica J. Computing Vol.1, Nr. 1, 2007, 193-206

7. T. Shaska Hyperelliptic curves with reduced automorphism group A_5 Appl. Algebra Engrg. Comm. Comput. vol. 18, Nr. 1-2, 2007, pg. 3-20

6. T. Shaska Subvarieties of the hyperelliptic moduli determined by group actions Serdica Math. Journal No. 4, (2006), 355-374

5. J. Gutierrez and T. Shaska Hyperelliptic curves with extra involutions LMS J. of Comp. Math. 8, (2005), 102-115.

4. T. Shaska Some special families of hyperelliptic curves J. Algebra Appl. 3 (2004), no. 1, 75–89

3. T. Shaska Genus 2 fields with degree 3 elliptic subfields Forum Math. 16 (2004), no. 2, 263–280

2. K. Magaard, T. Shaska, S. Shpectorov, H. Völklein The locus of curves with prescribed automorphism group Communications in arithmetic fundamental groups (Kyoto, 99/01). Sūrikaisekikenkyūsho Kōkyūroku No. 1267 (2002), 112–141

1. T. Shaska Curves of Genus 2 with (n, n)-decomposable Jacobians Jour. Symb. Comp. vol.31, No.5, pg. 603-617, 2001

Conference Proceedings

26. T. Shaska Reduction of superelliptic Riemann surfaces

25. G. Frey and T. Shaska Curves, Jacobians, and Cryptography Contemporary Math. vol. 724, 19, pg. 279-345.

24. A. Broughton, A. Wootton, T. Shaska On automorphisms of algebraic curves Contemporary Math. vol. 724, 19, pg. 175-212.

23. Shuichi Otake and Tony Shaska Bezoutians and the discriminant of a certain quadrinomials Contemporary Math. vol. 724, 19, pg. 55-72.

22. J. Mandili and T. Shaska Heights on weighted projective spaces Contemporary Math. vol. 724, 19, pg. 149-160.

21. R. Hidalgo and T. Shaska On the field of moduli of superelliptic curves Contemporary Math. vol. 703, 18, 49-64

20. L. Beshaj, R. Hidalgo, A. Malmendier, S. Kruk, S. Quispe, T. Shaska Rational points on the moduli space of genus two Contemporary Math. vol. 703, 18, 87-120

19. D. Joyner and T. Shaska Self-inversive polynomials, curves, and codes Contemporary Math. vol. 703, 18, 197 - 218

18. L. Beshaj, A. Elezi, T. Shaska Theta functions of superelliptic curves Information security, coding theory and related combinatorics NATO Sci. Peace Secur. Ser. D Inf. Commun. Secur., 29, IOS, 15, 47–69

17. A. Elezi and T. Shaska Weight distributions, zeta functions and Riemann hypothesis for linear and algebraic geometry codes Information security, coding theory and related combinatorics NATO Sci. Peace Secur. Ser. D Inf. Commun. Secur., 29, IOS, 15, 259–298

16. M. Izquierdo and T. Shaska Cyclic curves over the reals Information security, coding theory and related combinatorics, 59–98 NATO Sci. Peace Secur. Ser. D Inf. Commun. Secur., 39, IOS, Amsterdam, 15.

15. L. Beshaj and T. Shaska Heights on algebraic curves Information security, coding theory and related combinatorics, 159–198 NATO Sci. Peace Secur. Ser. D Inf. Commun. Secur., 29, IOS, Amsterdam, 11.

14. L. Beshaj and T. Shaska Decomposition of some Jacobian varieties of dimension 3 Artificial Intelligence and Symbolic Computation LNCS vol. 8884, 193-204

13. L. Beshaj, T. Shaska, C. Shor On Jacobians of curves with superelliptic components Contemp. Math. vol. 29, 14, 1–14

12. L. Beshaj and T. Shaska The arithmetic of genus 2 curves Information security, coding theory and related combinatorics 59–98, NATO Sci. Peace Secur. Ser. D Inf. Commun. Secur., 29, IOS, Amsterdam, 2011.

11. T. Shaska and G. Wijesiri Theta functions and algebraic curves with automorphisms Algebraic aspects of digital communications, NATO Sci. Peace Secur. Ser. D Inf. Commun. Secur., 24 IOS, Amsterdam, 2009, 193 – 237

10. T. Shaska and C. Shor Codes over F_{p^2} and $F_p \times F_p$, lattices, and theta functions Advances in Coding Theory and Cryptology vol 3. (2007), pg. 70-80

9. A. Bialostocki and T. Shaska Galois groups of prime degree polynomials with nonreal roots Lect. Notes in Computing 13, 2005, 243–255

8. J. Gutierrez, T. Shaska, D. Sevilla Hyperelliptic curves of genus 3 with prescribed automorphism groups Lect. Notes Comp. vol 13. (2005), 109–123

7. V. Krishnamoorthy, T. Shaska, H. Voelklein Invariants of binary forms Dev. in Math. vol 12, pg.101-122, Springer, 05

6. T. Shaska Genus 2 curves covering elliptic curves: a computational approach Lect. Notes in Comp. vol 13. (2005), 205-231

5. T. Shaska; Computational Aspects of Hyperelliptic Curves Computer Mathematics Lecture Notes Ser. Comput. 10, 248–257, World Sci. Publishing, River Edge, NJ.

4. T. Shaska and J. Thompson; On the generic curve of genus 3 Contemporary Math. vol. 369, pg. 233-244, (American Math. Soc.), 2005

3. T. Shaska and H. Voelklein; Elliptic subfields and automorphisms of genus 2 function fields Algebra, arithmetic and geometry with applications Springer, 04, 703–723

2. T. Shaska; Determining the automorphism group of a hyperelliptic curve International Symposium on Symbolic and Algebraic Computation ISSAC 03, New York, 03, 248–254

1. T. Shaska; Genus 2 curves with $(3,3)$-split Jacobian and large automorphism group, Algorithmic number theory (Sydney, 2002) Lecture Notes in Comput. Sci., 2369, 205–218

▬▬▬ Conferences Organized

Jan. 21 Algebraic and Arithmetic Geometry, Joint Mathematics Meetings, Washington, DC, (with Marc Hindry)

Mar. 20 Cyber defense and cryptography in undergraduate education, AMS Sectional Meeting, University of Virginia, Charlottesville, VA (cancelled)

Mar. 20 Curves, Jacobians, and Abelian Varieties, University of Virginia, Charlottesville, VA. with A. Obus and P. Srinivasan (cancelled)

Dec. 18 Tirana Winter School in Algebraic Geometry, Tiranë, Albania, Dec. 28-29, 18.

Oct. 18 From hyperelliptic to superelliptic curves, Spring Central Sectional Meetings in University of Michigan, Meeting 1143. (with Yuri Zarhin and Nicola Tarasca)

Aug. 18 Algebraic Curves, Integrable Systems, Cryptography (with Julia Bernatska and Victor Enolski), Kiev, Ukraine, Aug. 24-25, 18

Mar. 18 Arithmetic of Algebraic Curves, Spring Central Sectional Meetings in Ohio State University, Meeting 1136. (with A. Elezi and M. Polak)

Jan, 17 Minimal integral models of algebraic curves, AMS Joint Meeting, Jan. 17, Atlanta, GA.

Nov. 16 Varieties, their fibrations and automorphisms in mathematical physics and arithmetic geometry, AMS Sectional Meeting, Nov. 16, Raleigh, NC.

Jan. 16 Special Session on Higher Genus Curves and Fibrations of Higher Genus Curves in Mathematical Physics and Arithmetic Geometry, Joint Mathematics Meetings AMS & MAA, Washington State Convention Center, Seattle, WA, Jan. 6-9, 16

Mar. 15 Special Session: Arithmetic of Hyperelliptic Curves, Michigan State University, East Lansing, MI.

Aug. 14 Nato Advanced Study Institute, Arithmetic of Hyperelliptic Curves, Ohrid, Macedonia.
T. Shaska, E. Zhupa

Jul. 14 Applications of Computer Algebra (ACA 14), Fordham University, New York. R. H. Lewis, T. Shaska

14 Co-organizer: Moduli spaces and arithmetic dynamics, Special Session, ACA 14, Fordham, New York, Jul. 9-12, 14

Jul. 13 Arithmetic of algebraic curves, ACA 13, Malaga, Spain. (with J. M. Couveignes, N. Pagani)

Jun. 12 MCAG 12: Michigan Computational Algebraic Geometry 12, Oakland University, Rochester, MI.
Tony Shaska, Dan Erman, Charles Wampler

Jun. 12 ECCAD 12: East Coast Computer Algebra Day, Oakland University, Rochester, MI.
         T. Shaska, D. Steffy

Mar. 12 Special Session: Computational Algebraic Geometry, AMS Sectional Meeting, Tampa, FL.
         A. Elezi, T. Shaska

Jan. 11 Computational Algebraic and Analytic, Geometry for Low-Dimensional Varieties. AMS Annual Meeting, New Orleans (with M. Seppala, E. Volchek)

Jun. 10 General Chair: Applications of Computer Algebra, ACA 10, Jun. 24-27, 10, University of Vlora, supported by Ministry of Science and Education, Albania.
         T. Shaska, E. Ruci, E. Zhupa, J. Calmet, A. Akritas, M. Wester

Jan. 09 Special Session: Computational Algebraic and Analytic Geometry for Low-Dimensional Varieties. AMS Annual Meeting, Washington DC. (with M. Seppala, E. Volchek)

May 08   Nato Advanced Study Institute, New challenges in digital communications, Vlora, Albania.

May 07   Conference in algebra, coding theory, and cryptography, Vlora, Albania.
         A. Elezi, T. Shaska

Jul. 07 Applications of Computer Algebra, ACA 07, Oakland University, Rochester, MI.

Jul. 07 Special session: Coding theory and cryptography, ACA 07, Rochester, MI.
         D. Joyner, T. Shaska, C. Shor

Jul. 07 Special session: Computational algebraic geometry, ACA 07, Rochester, MI.
         A. Elezi, T. Shaska

Jan. 07 Special Session: Computational Algebraic and Analytic, Geometry for Low-Dimensional Varieties. AMS Annual Meeting, New Orleans
         M. Seppala, E. Volchek, T. Shaska

Jun. 06 Special Session: Coding theory and cryptography, ACA 06, Varna, Bulgaria.
         S. Dodunekov, T. Shaska

May 05   Computational aspects of algebraic curves, University of Idaho, Moscow, Idaho, 05.

Jan. 05 *Special Session: Algorithmic Algebraic and Analytic Geometry*, AMS Annual Meeting, Atlanta, GA.
         M. Seppala, E. Volchek, T. Shaska

Jul. 04 Special session: *Computational aspects of algebraic curves*, ACA 04, Beaumont, TX.

Jul. 03 Special session: *Computational aspects of algebraic curves*, ACA 03, NC State, Raleigh, NC.

Sep. 01 Progress in Galois Theory, John Thompson's 70th birthday
         H. Völklein, T. Shaska

Selected talks

May 20   The arithmetic of weighted moduli spaces, NATO Advanced Study Institute: Recent trends in cryptology and cyber security, Kyiv, Ukraine

Mar. 20 Computation on moduli spaces: an introduction to weighted moduli heights, AMS Section Meeting, Special Session on Moduli of Curves, Hilbert Schemes, and Tropical Geometry, Tufts University, Medford, MA.

Mar. 20 The addition on Jacobian varieties from a geometric viewpoint, AMS Section Meeting, Special Session on Automorphisms of Riemann Surfaces, Subgroups of Mapping Class Groups and Related Topics, Tufts University, MA.

Mar. 20 Educating the good citizen: an algebraic viewpoint, AMS Section Meeting, Special Session on Cyber defense and cryptography in undergraduate education, University of Virginia, Charlottesville, VA,

Mar. 20 Weighted greatest common divisors and weighted heights, AMS Section Meeting, Special Session on Curves, Jacobians, and Abelian Varieties, University of Virginia, Charlottesville, VA.

Dec. 19 Heights on weighted projective varieties, Department of Mathematics Colloquium, University of Sarajevo, Sarajevo, Bosnia and Herzegovina.

Oct. 19 Addition on Jacobian varieties from a geometric viewpoint, National University of Greece, Athens, Greece.

Apr. 19 Abelian varieties with complex multiplication, Explicit Methods for Abelian and Calabi-Yau varieties, Utah State University, Logan, UT.

Apr. 19   Isogenies of 2-dimensional Jacobians, Mathematical Cryptology, Spring Eastern Sectional Meeting University of Connecticut Hartford, Hartford, CT

Mar. 19   Curves, automorphisms, and their Jacobians, Algebra seminar, College of Charleston, Charleston, SC.

Feb. 19   Superelliptic curves with complex multiplication, Special session: Automorphisms of curves, Santander, Spain.

Nov. 18   Heights on weighted projective spaces, Algebra Seminar, Wayne State University, Detroit, MI.

Oct. 18   Heights on weighted projective spaces, AMS Special Session: From hyperelliptic to superelliptic curves, Ann Arbor.

Aug. 18   Abelian Varieties and Cryptography, Algebraic Curves, Integrable Systems, and Cryptography, National University of Kyiv-Mohyla Academy, Kiev, Ukraine

Apr. 18   The group law for the Jacobi variety of a hyperelliptic curves, Utah State, Logan, Utah

Apr. 18   Riemann surfaces with extra automorphisms and endomorphism rings of their Jacobians, Special Session on Automorphisms of Riemann Surfaces and Related Topics, AMS Sectional Meeting in Portland, OR. Apr. 14-15, 18.

Mar. 18   Isogenies of Abelian varieties, Algebraic curves and their applications, AMS Sectional Meeting in Columbus, OH.

Sep. 17   From hyperelliptic to superelliptic curves, Algebraic curves and their applications, AMS Sectional Meeting in Orlando, FL. Sep. 22-23, 17.

Apr. 17   From hyperelliptic to superelliptic curves, Department of Mathematics, US Naval Academy, Apr. 22, 17.

Jan. 17   A pair of universal curves of genus 2, AMS Joint Meeting in Atlanta, GA. Jan., 4-7, 17.

Oct. 15   Theta functions and symmetric weight enumerators for codes over imaginary quadratic fields, AMS Special Session on Coding Theory and Its Applications, Chicago, Oct. 3-4, 15

Oct. 15   Julia quadratic of superelliptic Riemann surfaces, AMS Special Session on Riemann surfaces and their automorphisms, Chicago, Oct. 3-4, 15

Jun. 15   Integral minimal models for binary forms, Mathematics Colloquium, University of Florida, Gainesville.

Mar. 15   Binary forms of minimal height, AMS Sectional Meeting, East Lansing

Jul. 14   Heights on algebraic curves, NATO ASI, Ohrid, 15

Jul. 14   Minimal models for curves over their minimal field of definition, ACA 14, New York.

Jul. 14   Genus 3 hyperelliptic curves with (2, 4, 4) split Jacobians, ACA 14, New York.

Mar. 14   Minimal equations of curves over their minimal field of definition, Southeastern Spring Sectional Meeting University of Tennessee, Knoxville, Meeting #1097

Jun. 13   Decomposition of Jacobians of superelliptic curves, Riemann and Klein Surfaces, Symmetries and Moduli Spaces, Linkoping, Sweden

Apr. 13   Automorphisms of curves and their Jacobians, AMS Special Session on on Computational Advances on Special Functions and Tropical Geometry, Iowa State University

May 13   Stratifications on moduli spaces of curves and superelliptic loci, MCAG 13, Western Michigan University

Mar. 13   Genus 3 hyperelliptic curves with split Jacobians and many rational points, Mathematics Colloquium, Georgia Southern University

Nov. 12   Some remarks on binary octavics, Mathematics Colloquium, Michigan Tech. University

Nov. 12   Some remarks on binary octavics, Mathematics Colloquium, Cleveland State University

Oct. 12   An introduction to the invariant theory of binary forms, Mathematics Colloquium, Duquesne University

Jun. 12   A historical view of theta functions (plenary talk), Conference on Applications of Algebra, Yildiz University, Istanbul, Turkey

Mar. 12   Thetanulls of algebraic curves and some applications, AMS Special session on Computational Algebraic Geometry, Tampa, Florida

Jan 12   Interesting families of algebraic curves, Joint AMS Meeting, Special Session on Mathematics of Computation, Boston

Jan. 12   Half-integer theta-nulls of superelliptic curves, AMS Sectional Meeting: Special Session on Computational and Algorithmic Algebraic Geometry, Salt Lake City

Oct. 11   Theta Functions of algebraic curves, Special Session on theta functions, SIAM National Conference, Raleigh

Jul. 11   Computational aspects of low genus curves, Laurier Centennial Conference: AMMCS-11, Waterloo

May 11	Theta-nulls of algebraic curves, 10th Panhellenic Geometry Conference, Patras, Greece
Nov. 10	Hybrid Methodologies for Symbolic-Numeric Computation, MSRI, Berkeley
Oct. 09	Automorphism groups of superelliptic curves, Workshop on Mathematical Cryptology, University of Cantabria, Spain
Mar. 08	Theta functions in coding theory, Mathematics Colloquium, University of Delaware
Oct. 07	Genus 2 curves covering elliptic curves, Mathematics Colloquium, Simon Fraser University, Vancouver
Oct. 07	Equations of curves with automorphisms, AMS Sectional Meeting, Special Session on Numerical and Symbolic Techniques in Algebraic Geometry and Its Applications, DePaul University
Sep. 07	Remarks on some old problems of algebraic geometry, Mathematics Colloquium, Michigan Tech.
May 07	A historical view of theta functions, Mathematics Colloquium, Lublin, Poland
Aug. 06	Codes over rings of size four, lattices, and their theta functions, Mathematics Colloquium, Lublin, Poland
Oct. 06	Some open problems in computational geometry, Mathematics Colloquium, University of Michigan-Dearborn
May 06	Theta functions and automorphism groups of curves, Galoistheorie Kolloquium, Institut für Experimentelle Mathematik (IEM), Essen, Germany
Jun. 06	Theta functions and application to coding theory, (ACA 06), Varna, Bulgaria
Apr. 05	Hyperelliptic curves with reduced automorphism group A_5, AMS Western section, Santa Barbara
Jan. 05	Genus 2 curves that admit a degree 5 map to an elliptic curve, Joint AMS meeting, Atlanta
Dec. 04	Genus 2 curves with (5, 5) split Jacobian, Institute for Experimental Mathematics, Essen, Germany
Jul.. 04	Field of moduli of curves, a computational approach, Workshop Computational Arithmetic Geometry, PIMS Simon Fraiser University, Vancouver
Oct. 03	Genus 2 curves with degree 5 elliptic subcovers, 991-14-21 AMS, Southeastern Section Meeting, Chapel Hill
Aug. 03	Determining the automorphism group of algebraic curves, ISSAC 03, Drexler University, Philadelphia
Jul. 03	Computational aspects of hyperelliptic curves, ACA 03, Raleigh, NC
Jun. 03	The monodromy group of a generic curve covering $\mathbb{P}^1$, Joint International Meeting of AMS and RSME, Seville, Spain
Jun. 03	Computational aspects of hyperelliptic curves, University of Cantabria, Santander, Spain
Oct. 03	Loci of hyperelliptic curves with prescribed group action, Computational Aspects of Algebraic Curves, and Cryptography, Gainesville
Jan. 03	Hyperelliptic curves with non-hyperelliptic involutions 983-14-115 AMS, JMN, Baltimore
Sep. 02	Hyperelliptic curves with extra automorphisms, Galois Theory Conference, John Thompson's 70th birthday, University of Florida, Gainesville
Sep. 02	Field of definition and field of moduli of hyperelliptic curves, University of Florida Colloquium, Gainesville, Florida
Dec. 02	Computational aspects of algebraic geometry, Algebra seminar, UC Irvine, Irvine, CA
Jul. 02	Genus 2 curves with (3,3)-split Jacobian and large automorphism group, ANTS V, International Symposium in Algorithmic Number Theory, Sydney, Australia
Nov. 01	Automorphisms and elliptic subfields of genus 2 fields (with H. Völklein), 972-14-47 AMS, Southwestern Conference, Groups and Covering Spaces in Algebraic Geometry, Irvine, CA
Sep. 01	The automorphism group of a Riemann surface, University of Florida Colloquium, Gainesville, Florida
Jun. 01	Elliptic subfields and automorphisms of genus 2 curves, University of Erlangen, Germany
May 01	Computing the locus of genus 2 fields with degree 2 or 3 elliptic subfields, Institute for Experimental Mathematics, Essen, Germany
May 01	Some Computational Aspects of Genus 2 Curves, Number Theory Conference, University of Illinois, Urbana-Champaign, IL
Dec. 00	Genus 2 curves covering elliptic curves, Workshop on Arithmetic Geometry, MSRI, Berkeley, CA
Jun. 00	Modular curves and Hurwitz spaces, Conference on Topological Groups, TU-München, Germany
Mar. 00	Curves of genus two with (n,n)-decomposable Jacobians, AG Gruppentheorie, Erlangen, Germany
May 99	Explicit equation of certain Hurwitz spaces, University of Heidelberg, Germany

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Reviewer for MathSciNet (40 articles reviewed)

Committees

2010–13   *Committee on Human Rights, American Mathematical Society*

Ph.D. students

Current students

Sara Mëzuri, *Oakland University*.

Bletar Zeka, *Oakland University*.

Jurgen Mezinaj, *Oakland University*.

Jezerca Hodaj, *Oakland University*.

Former students

2011-16   **L. Beshaj**, *Ph.D. Mathematics*, Oakland University.
Thesis: Integral binary forms with minimal height
Position: Assistant Professor, Army Cyber Institute, West Point Military Academy

2005-09   **R. Sanjeeva**, *Ph.D. Mathematics*, Oakland University.
Thesis: Automorphism Groups of Cyclic Algebraic Curves
Position: Chair, Department of Mathematics, University of Sri Jayewardenepura, Sri Lanka

2005-08   **G. Wijesiri**, *Ph.D. Mathematics*, Oakland University.
Thesis: Theta Functions of Algebraic Curves with Automorphisms
Position: Tenured, University of Kelania, Sri Lanka

References

Ron Donagi, *Prof. of Mathematics*, University of Pennsylvania.

Mike Fried, *Retired Professor of Mathematics*, UC Irvine.

Jaime Gutierrez, *Professor of Computer Science*, Universidad de Cantabria, Spain..

Emma Previato, *Prof. of Mathematics*, Boston University.