VITA FOR MICHAEL FILASETA

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Education:

Ph.D. University of Illinois at Champaign-Urbana (1984)
B.A. University of Arizona (1980)

Professional Experience:

Carolina Trustee Professor Emeritus (2020-present)
Carolina Trustees Professor (2017-2020)
Full Professor, University of South Carolina (1995-2017)
Assistant Chair, Mathematics Department, University of South Carolina (2012-2017)
Associate Professor, University of South Carolina (1989-1995)
Assistant Professor, University of South Carolina (1984-1989)

Grants:

Duration	Agency	Type	Title
2015-2016	NSA	PI	*Polynomial Research in Number Theory*
2014-2015	NSA	PI	*Number Theoretic Problems on Polynomials*
2012-2014	NSA	PI	*Polynomial Problems in Analytic Number Theory*
2004-2007	NSA	PI	*Fac lac plyns & Galois grps of Laguerre plyns* (with Douglas Meade)
2002-2006	NSF	PI	*On the factorization of lacunary polynomials* (with Douglas Meade)
2000-2003	NSF	Co-PI	*SCREMS Proposal*
1998-2000	NSA	PI	*Problems on the irreducibility of polynomials*
1997-1999	NSA	PI	*Finite differences & irreduc. techniques in Analytic Number Theory*
1994-1997	NSF	PI	*Finite diff. techniques & irreducibility thms in Analytic Num. Theory*
1994-1996	NSF	Co-PI	*Computational equip. for Algebra, Combin., and Number Theory*
1992-1994	NSA	PI	*Problems related to finite differences, fract. parts, and irreducibility*
1989-1991	NSF	PI	*Gaps between k-free numbers, finite differences, & exponential sums*

Other Awards and Honors:

Faculty Fellow of the South Carolina Honors College (2014-2017)
Mungo Graduate Teaching Award, 2010
UofSC Promising Investigator Research Award, 2010
Mortar Board Excellence in Teaching Award, 1994
The Distinguished Award of the Hardy-Ramanujan Society (with Ognian Trifonov), 1991
UofSC Research and Productive Scholarship Grant (Univ. of S. Carolina, 1985-1986)
University Fellowship (University of Illinois, 1980-1982)

Former Doctoral Students (20 total):

Year	Name	Dissertation Title
2024	Robert Groth	*Generalized Sierpiński numbers and new irreducibility criteria on Legendre polynomials*
2023	Thomas Luckner	*Widely digitally delicate Brier primes and irreducibility results for some classes of polynomials*
2021	Joseph Foster	*Polynomials, primes and the PTE problem*
2021	Jacob Juillerat	*Widely digitally stable numbers and irreducibility criteria for polynomials with prime values*
2020	Jeremiah Southwick	*Two inquiries related to the digits of prime numbers*
2017	Wilson Harvey	*Covering subsets of the integers and a result on digits of Fibonacci numbers*
2014	Scott Dunn	*Explorations in elementary and analytic number theory*
2013	Joshua Harrington	*Selected research in covering systems of the integers and the factorization of polynomials*
2012	Samuel Gross	*Irreducibility criteria for polynomials with non-negative integer coefficients, and the prime factorization of $f(n)$ for $f(x)$ in $\mathbb{Z}[x]$*
2012	Andrew Vincent	*Classifying polynomials with reducible nonreciprocal parts and the factorization of values of polynomials*
2010	Pradipto Banerjee	*On a conjecture of Pál Turán and investigations into Galois groups of generalized Laguerre polynomials*
2009	Dan Baczkowski	*Diophantine equations involving factorials and lattice points close to smooth curves*
2007	Mark Kozek	*Applications of covering systems of integers and Goldbach's conjecture for monic polynomials*
2006	Carrie Finch	*Topics from the irreducibility of polynomials and coverings of the integers*
2004	Travis Kidd	*On the irreducibility of the Laguerre polynomials $L_m^{(m)}(x)$*
2001	Martha Allen	*Generalizations of the irreducibility theorems of I. Schur*
2001	Angel Kumchev	*Diophantine problems involving prime numbers*
2000	Richard L. Williams	*The irreducibility of a certain class of Laguerre polynomials*
1996	Ikhalfani Solan	*Norms of factors of polynomials, an extension of a theorem of Ljunggren, and the distribution of k-free numbers*
1995	Brian D. Beasley	*The distribution of powerfree values of irreducible polynomials*

Former Masters Students (23 total):

Year	Name	Thesis Title
2022	Maria Cummings	*Covering systems and the minimum modulus problem*
2017	Spencer Saunders	*Polynomials with small Mahler measure and no Newman multiples*

Former Masters Students (Continued):

Year	Name	Thesis Title
2016	Maria Markovich	*On a constant associated with the Prouhet-Tarry-Escott problem*
2014	Melissa Bechard	*The non-existence of a covering system with all moduli distinct, large and square-free*
2013	Morgan Cole	*Sharp bounds associated with an irreducibility theorem for polynomials having non-negative coefficients*
2013	Daniel White	*Coloring Pythagorean triples and a problem concerning cyclotomic polynomials*
2011	Paul Hendrick	*A bound for the irrationality measure of* $\zeta(3)$
2007	J Russell Leidy	*Galois groups of Laguerre polynomials*
2004	Manton Matthews	*On the factorization of* $f(x)x^n + g(x)$
2003	Robert Murphy	*Factorization of polynomials with small Euclidean norm*
2001	Michael Williams	*Eisenstein's criterion applied to mth order Bernoulli polynomials of degree m*
1999	Martha Allen	*The irreducibility theorems of I. Schur*
1998	James Blair	*Determining the irreducibility of polynomials through the use of Newton polygons*
1997	Brian Hipp	*A variation on a theorem of Ljunggren*
1996	Gerald Baygents	*Reducibility criterion in polyns. with non-negative coefficients*
1995	Patrick Harley	*On a generalization of an irreducibility theorem of I. Schur*
1995	Shannon Smith	*An algorithm of Lenstra, Lenstra, and Lovasz*
1989	Roger Rosenthal	*Dirichlet's theorem for polynomials*
1989	Grace De Ramos	*Elementary approaches to a gap problem involving k-free numbers*
1989	Jacklyn Pitts	*On an irreducibility theorem of I. Schur*
1989	Angela Andrews	*On the density of irreducible polynomials with coefficients 0 and 1*
1988	Melonie Rodgers	*Problems and results on irreducible polynomials*
1987	Janis Alexander	*Irred. criteria for polynomials with non-negative coefficients*

Current Students:

Alexandros Kalogirou (Ph.D.)

Conference Organization:

PAlmetto Number Theory Series, UofSC, 12/2024 (with Boylan, Thorne and Tsai)
PAlmetto Number Theory Series, UofSC, 12/2022 (with Boylan and Thorne)
Analytic and Combinatorial Number Theory: The Legacy of Ramanujan, U of I, 06/2019 (with Scott Ahlgren, George Andrews, Atul Dixit, Kevin Ford, A. J. Hildebrand, Timothy Huber, Bruce Reznick and Ae Ja Yee)
PAlmetto Number Theory Series, UofSC, 12/2018 (with Boylan and Thorne)
PAlmetto Number Theory Series, UofSC, 12/2016 (with Boylan and Thorne)

PAlmetto Number Theory Series, UofSC, 12/2014 (with Boylan and Thorne)
PAlmetto Number Theory Series, UofSC, 12/2012 (with Boylan and Thorne)
PAlmetto Number Theory Series, UofSC, 12/2010 (with Boylan)
PAlmetto Number Theory Series, UofSC, 12/2009 (with Boylan)
Workshop on Discovery and Experimentation in Number Theory, Fields Institute, Toronto, Canada, 09/2009 (with Borwein, Hare, Mossinghoff, Smyth)
PAlmetto Number Theory Series, UofSC, 12/2008 (with Boylan & Trifonov)
PAlmetto Number Theory Series, UofSC, 2007 (with Boylan & Trifonov)
Illinois Number Theory Fest, UIUC, 2007 (with Berndt, Daimond & Ford)
PAlmetto Number Theory Series, UofSC, 2006 (with Boston & Boylan)
South East Regional Meeting On Numbers, UofSC, 2005 (with Murhpy, Trifonov & Yu)
MSRI Summer Graduate Program (jointly with P. Borwein, 2 weeks in 06/02)
Session of AMS Sectional Meeting in Columbia, SC, 2001 (with Trifonov)
South East Regional Meeting On Numbers, UofSC, 1999 (with Trifonov, Ford & Hudson)
Session of AMS Sectional Meeting in DeKalb, Illinois, 1993 (with Pomerance)
South East Regional Meeting On Numbers, UofSC, 1993

Invited Lectures (since 2002):

A lively journey through sparse polynomials, Kennesaw State colloquium, virtual (11/10/23)

Excursions into the factorization of lacunary polynomials, Oklahoma State University Seminar, Stillwater, OK (03/23/23)

Rotations and translations in Geometry, Stepping Stone program, virtual (03/27/22)

Excursions in digitally delicate primes, Montréal Online Biweekly Inter-University Seminar on Analytic Number Theory, virtual (03/03/22)

Random thoughts related to gaps between squarefree numbers, Towson University seminar, Towson, MD (05/05/22)

On a dense universal Hilbert set, Indian Statistical Institute, Delhi Centre, virtual (11/11/20)

On a dense universal Hilbert set, Towson University Colloquium, virtual (11/06/20)

On a dense universal Hilbert set, Upstate New York Online Number Theory Colloquium, virtual (07/20/20)

Two excursions in digitally delicate primes, Combinatorial and Additive Number Theory (CANT) 2020, virtual conference (06/03/20)

On a problem of Turán and sparse polynomials, Field Arithmetic Seminar, Tel Aviv University, virtual (05/27/20)

Widely Digitally Delicate Primes, Math Club Talk, Clemson University, Clemson, SC (12/13/19)

4959866698915122609810424451291 8, Colloquium talk, Dalhousie University, Halifax, Nova Scotia, CA (12/10/19)

Practical aspects of testing the irreducibility of the non-reciprocal part of a $0, 1$*-polynomial*, plenary talk, INTEGERS Conference 2018, Augusta, GA (10/05/18)

4959866698915122609810424451291 8, Number Theory Week 2017, Adam Mickiewicz University, Poznań, Poland (09/07/17)

4959866698915122609810424451291 8, plenary talk, Seventh Annual Upstate New York Num-

ber Theory Conference, Binghamton University, Binghamton, NY (05/07/17)

Roots of polynomials with integer coefficients, AMS Sectional Meeting, Special Session on Experimental Mathematics, University of Georgia, Athens, GA (03/05/16)

Regions containing roots of polynomials, The Geometry, Algebra and Analysis of Algebraic Numbers, Banff International Research Center, Banff, CA (10/6/15)

Coverings of subsets of the integers, Elementary, analytic, and algorithmic number theory: Research inspired by the mathematics of Carl Pomerance, Athens, GA (06/09/15)

The distribution of primes in determining classes of irreducible polynomials, Spring Southeastern Sectional Meeting of the AMS, Special Session on Analytic Methods in Elementary Number Theory, University of Alabama in Huntsville, Huntsville, AL (03/28/15)

Trace fields of hyperbolic 3-manifolds and the factorization of sparse polynomials, AMS Sectional Meeting, Special Session on Connections in Number Theory, University of North Carolina at Greensboro, Greensboro, NC (11/09/14)

Integral points on curves and Hilbert's Irreducibility Theorem, AMS Sectional Meeting, Special Session on Experimental Mathematics in Number Theory, Analysis, and Combinatorics, Dalhousie University, Halifax, Canada (10/18/14)

4959866698915122609810424451291 7, Canadian Number Theory Association Meeting, Carleton University, Ottawa, CA (06/17/14)

Starting with gaps between k-free numbers, Number Theory at Illinois: A Conference in Memory of the Batemans and Heini Halberstam, Urbana, IL (06/06/14)

The genus behind Hilbert's Irreducibility Theorem, AMS Sectional Meeting, AMS Special Session on Arithmetic of Algebraic Curves, Knoxville, TN (03/22/14)

Applications of the prime factorization of the product of consecutive integers to polynomials, Joint AMS-MAA Meeting, MAA Invited Paper Session on the Continuing Influence of Paul Erdős in Number Theory, Baltimore, MD (01/17/14)

The genus behind Hilbert's Irreducibility Theorem and/or a connection of this theorem to Linnik's result on the smallest prime in an arithmetic progression, Joint AMS-MAA Meeting, AMS Special Session on Analytic Number Theory, Baltimore, MD (01/17/14)

Problems connected to the factorization of $f(x)x^n + g(x)$ and roots outside the unit disk, 2013 Canadian Mathematical Society, Halifax, CA (06/06/13)

A polynomial problem of Turán modulo primes, Joint AMS-MAA Meeting, AMS Special Session on the Coverings of the Integers, San Diego, CA (01/11/13)

4959866698915122609810424451291 8, Univ. of Waterloo Number Theory Seminar (12/18/12)

4959866698915122609810424451291 8, Univ. of Illinois Number Theory Seminar (10/18/12)

4959866698915122609810424451291 8 and 859244474352913581576954595593 6773, AMS Sectional Meeting, Special Session on Analytic Number Theory, Rochester, NY (09/23/12)

On a polynomial conjecture of Turán, Canadian Number Theory Association Meeting, Lethridge, Canada (06/21/12)

A survey of results related to the Galois structure of Laguerre polynomials, Olemiss Seminar, The University of Mississippi, MS (10/21/11)

A polynomial conjecture of P. Turán, Olemiss Colloquium, The University of Mississippi, MS

(10/20/11)

Four Seemingly Unrelated Problems, Georgia Tech Seminar, Georgia Tech, GA (02/25/11)

On the irreducibility and Galois structure of Laguerre polynomials, XXIst Rencontres Arithmétiques de Caen, Factorisation des nombres entiers et des polynômes, Université de Caen, Caen, France (06/25/10)

A survey of results related to the Galois structure of Laguerre polynomials, Diophantine Approximation and Analytic Number Theory: A Tribute to Cam Stewart, Banff International Research Station, Banff, Canada (06/03/10)

Missed it by that much, AMS Session on "Special Session on Analytic Number Theory," Penn State, State College, PA (10/25/09)

Open problems on covering systems, Workshop on Discovery and Experimentation in Number Theory, Fields Institute, Toronto, Canada (09/25/09)

Open problems on covering systems, AMS Session on "Number Theory in the Spirit of Erdős," University of Illinois, Urbana, IL (03/28/09)

Diophantine equations arising from the study of Galois groups, Hans Heilbronn 100th Birthday Conference, University of Bristol, Brirstol, UK (09/25/08)

Miscellaneous problems on the factorization of 0,1-polynomials, Conference on the Mathematical Interests of Peter Borwein, IRMACS, Simon Fraser University, Vancouver, CA (05/08)

A Diophantine problem arising from a study in Galois groups, Spring Western AMS Sectional Meeting, Claremont McKenna College, Claremont, CA, Special Session on Diophantine Problems and Discrete Geometry (05/08)

Diophantine equations arising from the study of Galois groups, Colloquium at Kent State University (04/08)

Irreducibility and gcd algorithms for sparse polynomials, Texas A&M Number Theory Seminar (03/08)

Irreducibility and gcd algorithms for sparse polynomials, Illinois Number Theory Fest, University of Illinois, Urbana, IL (05/07)

Prime divisors of binomial coefficients and the like, AMS Regional Meeting, Hoboken, NJ (04/07)

Some recent applications of covering systems of the integers, AMS Regional Meeting, Davidson College, NC (03/07)

Applications of Padé approximants to number theory, Concordia University (Montreal, Quebec, Canada), Number Theory Seminar (01/07)

Irreducibility and gcd algorithms for sparse polynomials, University of Montreal (Montreal, Quebec, Canada), Number Theory Seminar (01/07)

Irreducibility and coprimality algorithms for sparse polynomials, Number Theory and Polynomials Conference, Bristol, England (04/06)

Different uses of Diophantine analysis in the theory of irreducibility, Diophantine Equations Conference at the Tata Institute of Fundamental Research in Honor of T. N. Shorey's 60th birthday, Mumbai, India (12/05)

Recent advances in covering problems, Combinatorial and Additive Number Theory (CANT

2005), in honor of Mel Nathanson, New York, NY (05/05)

Recent advances in covering problems, The Pacific North West Number Theory Conference IX, Simon Fraser University, Vancouver, CA (04/05)

Applications of Padé Approximations of $(1-z)^k$ *to Number Theory*, BIRS Workshop on Diophantine Approximation and Analytic Number Theory, Banff, CA (11/04)

Some remarkable polynomials, The 19th Clemson mini-Conference on Discrete Mathematics and Related Fields, Clemson, SC (10/04)

Applications of Padé Approximations of $(1-z)^k$ *to Number Theory*, REU Talk, Clemson University, Clemson, SC (06/03)

Primality Testing in Polynomial Time, Colloquium for the Department of Computer Science and Engineering at UofSC, Columbia, SC (10/02)

Applications of Padé Approximations of $(1-z)^k$ *to Number Theory*, Penn State, State College, PA (04/02)

On the factorization of $n(n+1)$, AMS Regional Meeting, Atlanta, GA (03/02)

Refereed for the Following (over 60 research journals): Acta Arithmetica; Acta Mathematica Sinica; Advances in Applied Mathematics; Algebra & Number Theory; American Mathematical Monthly; Annales des Sciences Mathematiques du Quebec; Applicable Analysis and Discrete Mathematics; Ars Combinatoria; British Journal of Applied Science & Technology; Bulletin of the Australian Mathematical Society; Bulletin of the London Mathematical Society; Bulletin of the Malaysian Mathematical Society; Canadian Mathematical Bulletin; Central European Journal of Mathematics; Cogent Mathematics; Colloquium Mathematicum; Contemporary Mathematics; Discrete Mathematics; l'Enseignement Mathematique; Fibonacci Quarterly; Functiones et Approximatio Commentarii Mathematici; Glasgow Mathematical Journal; Hardy Ramanujan Journal; Houston Journal of Mathematics; Illinois Journal of Mathematics; Indagationes Mathematicae; Integers: Electronic Journal of Combinatorial Number Theory; International Journal of Mathematics and Mathematical Sciences; International Journal of Number Theory; Involve, a Journal of Mathematics; Journal of Algebra and Its Applications; Journal für die reine und angewandte Mathematik (Crelle's Journal); Journal of Combinatorial Theory, Series A; Journal of Combinatorics and Number Theory; Journal of Graph Theory; Journal of Inequalities in Pure and Applied Mathematics; Journal of Integer Sequences; Journal of Number Theory; Journal of Systems and Software; Journal of Theoretical Biology; Mathematica Scandinavica; Mathematica Slovaca; Mathematical Proceedings of the Cambridge Philosophical Society; Mathematical Reports for the Canadian Academy of Sciences; Mathematics of Computation; Mathematics Student; Mathematische Zeitschrift; Monatshefte für Mathematik; Moscow Journal of Combinatorics and Number Theory; Nagoya Mathematical Journal; New York Journal of Mathematics; New Zealand Journal of Mathematics; Pacific Journal of Mathematics; Proceedings of the American Mathematical Society; Proceedings of the London Mathematical Society; Publicationes Mathematicae Debrecen; Ramanujan Journal; Research in Number Theory; Revista Colombiana de Matematicas; Rocky Mountain Journal of Mathematics; Sbornik: Mathematics; SIAM Journal on Discrete Mathematics; South East Asian Journal of Mathematics and Mathematical Sciences; Topology and Its Applications; Transactions of the American Mathematical Society [and Mathematical Reviews; CRC Press (Taylor & Francis Group, book proposal); Springer-Verlag (CMS book series); SPECTRUM Series of Books for the MAA; Proceedings of Conferences (from Canada, Cardiff, Illinois, & Poland)]

Miscellaneous Other Activities:

Managing editor for the International Journal of Number Theory (2018-present)
Editorial board (handling editor) for the International Journal of Number Theory (2012-2018)
Editorial board for The Ramanujan Journal (2022-present)
Editorial board for Integers Electronic Journal of Combinatorial Number Theory (2016-present)
NSF Grant Review Panel for Algebra and Number Theory (2016, 2019)
AMS MSP Number Theory Review Panel for NSA Grants (2015-2016)
Mungo Graduate Teaching Award Committee (2010-2014, 2019)
ASPIRE Award review committee (2012-2013)
AMS-MAA Committee on Mathematicians with Disabilities (2011-2013)
South Carolina Math Advisory Panel (for the SC State Department of Education; 2008)
Spectrum Editorial Board for the MAA (2001-2007)
Collaborating Editor for the Problem Section of the Mathematical Monthly (1991-1997)
Grader for the William Lowell Putnam Competition (1996, 1997, 1999, 2002, 2015, 2016)
Member of the All-State High School Mathematics Selection Committee (1990-2005)

Main Research Publications:

[1] M. Filaseta and A. Kalogirou, *Covering systems with the sum of the reciprocals of the moduli close to* 1, https://arxiv.org/pdf/2407.15280.

[2] M. Filaseta and F. Luca, *On the distance between factorials and repunits*, https://arxiv.org/pdf/2411.09060.

[3] M. Filaseta, J. Klein and C. Sabuncu, *On extreme values of $r_3(n)$ in arithmetic progressions*, https://arxiv.org/pdf/2412.01988.

[4] M. Filaseta and S. Garoufalidis, *Factorization of polynomials in hyperbolic geometry and dynamics*, submitted, https://arxiv.org/abs/2209.08449.

[5] M. Cummings, M. Filaseta and O. Trifonov, *An upper bound for the minimum modulus in a covering system with squarefree moduli*, Acta Math. Hung., to appear https://arxiv.org/abs/2211.08548.

[6] M. Allen and M. Filaseta, *A generalization of a fourth irreducibility theorem of I. Schur*, Hardy-Ramanujan J. 46 (2023), 6–22, https://arxiv.org/abs/2307.05877.

[7] M. Filaseta and T Luckner, *On n^{th} order Euler polynomials of degree n that are Eisenstein*, Indag. Math. (N.S.) 35 (2024), 76–86, https://arxiv.org/pdf/2305.09227.

[8] M. Filaseta, R. Groth, and T Luckner, *Generalized Sierpiński numbers*, Colloq. Math. 174 (2023), 191–201, https://arxiv.org/pdf/2305.09219.

[9] M. Filaseta, J. Juillerat and T. Luckner, *Consecutive primes which are widely digitally delicate and Brier numbers*, Integers 23 (2023), Paper No. A75, 24 pp., https://arxiv.org/pdf/2209.10646.

[10] M. Filaseta, *On the factorization of lacunary polynomials*, Acta Arith. 210 (2023), 23–52, https://arxiv.org/pdf/2207.11648.

[11] M. Filaseta and J. Juillerat, *Consecutive primes which are widely digitally delicate*, INTEGERS: Ron Graham Memorial Volume, Vol. 21A, 2021, Paper No. A12, 37 pp.; also see, Number Theory and Combinatorics: A Collection in Honor of the Mathematics of Ronald Graham, edited by Bruce M. Landman, Florian Luca, Melvyn B. Nathanson, Jaroslav Nešetřil and Aaron Robertson, Berlin, Boston: De Gruyter, 2022, pp. 209–248, https://arxiv.org/pdf/2101.08898.

[12] M. Filaseta, J. Juillerat and J. Southwick, Widely Digitally Stable Numbers, in *Combinatorial and Additive Number Theory IV* (ed. M. Nathanson), Springer Proc. Math. Stat. 347, Springer, Cham, 2021, 161–193.

[13] M. Filaseta and J. Southwick, *Primes that become composite after changing an arbitrary digit*, Math. Comp. 90 (2021), 979–993.

[14] M. Filaseta, H. Li, F. Patane and D. Skabelund, *On the irreducibility of the non-reciprocal part of polynomials of the form* $f(x)x^n + g(x)$, Acta Arith. 196 (2020), 187–201.

[15] M. Filaseta and R. Moy, *The distance to a squarefree polynomial over* $\mathbb{F}_2[x]$, Acta Arith. 193 (2020), 419–427.

[16] M. Filaseta, *Practical aspects of testing the irreducibility of the non-reciprocal part of a* $0, 1$*-polynomial*, INTEGERS 20A (2020), Proceedings of the Integers Conference 2018, Paper No. A7, 16 pp.

[17] M. Filaseta, R. Murphy and A. Vincent, *Computationally classifying polynomials with small Euclidean norm having reducible non-reciprocal parts*, Number theory week 2017, Banach Center Publ. 118, Polish Acad. Sci. Inst. Math., Warsaw, 2019, pp. 245–259.

[18] M. Filaseta, *A class of irreducible polynomials associated with prime divisors of values of cyclotomic polynomials*, Mathematika 65 (2019), 1033–1037.

[19] M. Filaseta and R. Wilcox, *An explicit dense universal Hilbert set*, Math. Proc. Camb. Phil. Soc. 167 (2019), 531–547.

[20] M. Filaseta and R. Moy, *On the Galois group over* $\mathbb{Q}$ *of a truncated binomial expansion*, Colloquium Mathematicum 154 (2018), 295–308.

[21] M. Filaseta and W. Harvey, *Covering subsets of the integers by congruences*, Acta Arith. 182 (2018), 43–72.

[22] M. Filaseta and M. Markovich, *Newton polygons and the Prouhet-Tarry-Escott problem*, Journal of Number Theory 174 (2017), 384–400.

[23] M. Filaseta and B. Rocks, *On the irreducibility of a polynomial associated with the Strong Factorial Conjecture*, Colloquium Mathematicum 145 (2016), 307–314.

[24] M. Cole, S. Dunn and M. Filaseta, *Further irreducibility criteria for polynomials with non-negative coefficients*, Acta Arith. 175 (2016), 137–181.

[25] M. Filaseta, S. Graham and O. Trifonov, *Starting with gaps between* k*-free numbers*, International Journal of Number Theory 11 (2015), 1411–1435.

[26] Joshua Cooper, Michael Filaseta, Joshua Harrington and Daniel White, *Colorings of Pythagorean triples within colorings of the positive integers*, Journal of Combinatorics and Number Theory 6 (2014), 1–16.

[27] M. Filaseta, *Is every polynomial with integer coefficients near an irreducible polynomial?*, Elemente der Mathematik 69 (2014), 130–143.

[28] M. Filaseta and S. Gross, *49598666989151226098104244512918*, Journal of Number Theory 137 (2014), 16–49.

[29] E. Dobrowolski, M. Filaseta and A. Vincent, *The non-cyclotomic part of $f(x)x^n + g(x)$ and roots of reciprocal polynomials off the unit circle*, International Journal of Number Theory 9 (2013), 1865–1877.

[30] P. Banerjee, M. Filaseta, C. E. Finch and J. R. Leidy, *On classifying Laguerre polynomials which have Galois group the alternating group*, Journal de Théorie des Nombres de Bordeaux, 25 (2013), 1–30.

[31] Michael Filaseta and Josh Harrington, *A polynomial investigation inspired by work of Schinzel and Sierpiński*, Acta Arith. 155 (2012), 149–161.

[32] Michael Filaseta, Travis Kidd and Ognian Trifonov, *Laguerre polynomials with Galois group A_m for each m*, Journal of Number Theory, 132 (2012), 776–805.

[33] Michael Filaseta, Shanta Laishram and N. Saradha, *Solving $n(n+d)\cdots(n+(k-1)d) = by^2$ with $P(b) \leq Ck$*, International Journal of Number Theory 8 (2012), 161–173.

[34] Michael Filaseta and Michael J. Mossinghoff, *The distance to an irreducible polynomial, II*, Math. Comp. 81 (2012), 1571-1585.

[35] Michael Filaseta, Mark Kozek, Charles Nicol and John Selfridge, *Composites that remain composite after changing a digit*, Journal of Combinatorics and Number Theory 2 (2010), 25–36.

[36] Dan Baczkowski, Michael Filaseta, Florian Luca and Ognian Trifonov, *On values of $d(n!)/m!$, $\phi(n!)/m!$ and $\sigma(n!)/m!$*, International Journal of Number Theory 6 (2010), 1199-1214.

[37] Pradipto Banerjee and Michael Filaseta, *On a polynomial conjecture of Pál Turán*, Acta Arithmetica 143 (2010), 239–255.

[38] Michael A. Bennett, Michael Filaseta and Ognian Trifonov, *On the factorization of consecutive integers*, J. Reine Angew. Math. (Crelle's Journal) 629 (2009), 171–200.

[39] Michael Bennett, Michael Filaseta and Ognian Trifonov, *Yet another generalization of the Ramanujan-Nagell equation*, Acta Arith. 134 (2008), 211–217.

[40] Michael Filaseta, Carrie Finch and Mark Kozek, *On powers associated with Sierpinski numbers, Riesel numbers and Polignac's conjecture*, Journal of Number Theory 128 (2008), 1916–1940.

[41] Michael Filaseta, Andrew Granville and Andrzej Schinzel, *Irreducibility and greatest common divisor algorithms for sparse polynomials*, Number Theory and Polynomials (ed. James

McKee and Chris Smyth), LMS Lecture Note Series 352, Cambridge Univ. Press, 2008, pp. 155–176.

[42] Michael Filaseta, Carrie Finch and J Russell Leidy, *T. N. Shorey's influence in the theory of irreducible polynomials*, Diophantine Equations (ed. N. Saradha), Narosa Publ. House, New Delhi, 2008, pp. 77–102.

[43] Michael Filaseta, Florian Luca, Pantelimon Stănică, and Robert Underwood, *Galois groups of polynomials arising from circulant matrices*, Journal of Number Theory 128 (2008), 59–70.

[44] Michael Filaseta, Florian Luca, Pantelimon Stănică, and Robert Underwood, *Two Diophantine approaches to the irreducibility of certain trinomials*, Acta Arithmetica 128 (2007), 149–156.

[45] Michael Filaseta, Angel Kumchev and Dima Pasechnik, *On the irreducibility of a truncated binomial expansion*, Rocky Mountain J. Math. 37 (2007), 455–464.

[46] Michael Filaseta, Kevin Ford, Sergei Konyagin, Carl Pomerance and Gang Yu, *Sieving by large integers and covering systems of congruences*, Journal of the AMS, 20 (2007), 495–517.

[47] Michael Filaseta, Carrie Finch, and Charles Nicol, *On three questions concerning* $0, 1$*-polynomials*, Journal de Théorie des Nombres de Bordeaux, 18 (2006), 357–370.

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