Abstract. Favorite all-time theorems: Siegel’s proof that affine curves of genus exceeding 0 have only finitely many integral points; Deligne’s proof of the Weil conjectures for K3 surfaces; Connes’ Signature Theorem using cyclic cohomology.

1. RESEARCH PAPERS

1.1. Period 1969–79.


Date: August 19, 2018.


    #7 http://www.math.uci.edu/ mfried/paplist-ff.html


18. Fields of Definition of Function Fields and Hurwitz Families and; Groups as Galois Groups, *Communications in Algebra* 5 (1977), 17–82.


34. with S. Friedland, *Discriminant criteria for reducibility of a polynomial*, Israel Journ. 54 (1986), 25–32.


40. Arithmetic of 3 and 4 branch point covers: a bridge provided by noncongruence subgroups of \( \text{SL}_g(\mathbb{Z}) \), Prog. in Math. Birkhauser 81 (1990), 77–117.

#21 http://www.math.uci.edu/ mfried/paplist-cov.html

41. with P. Debes, Rigidity and real residue class fields, Acta Arith 56 (1990), 13–45:

#22 http://www.math.uci.edu/ mfried/paplist-cov.html

42. with P. Debes, Arithmetic variation of fibers in families: Hurwitz monodromy criteria for rational points on all members of the family, Crelles J. 409 (1990), 106–137:


44. with H. Völklein, The embedding problem over an Hilbertian-PAC field, Annals of Math 135 (1992), 469–481:


45. with P. Debes, Nonrigid situations in constructive Galois theory, Pacific Journal 163 #1 (1994), 81–122:


1.4. Period Fall 1995–Present.


56. *Enhanced review of J.P. Serre’s Topics in Galois Theory, with examples illustrating braid rigidity* see #2 in Reviews.:


60. *Variables Separated Polynomials and Moduli Spaces*, No. Th. in Progress, eds.

61. with P. Debes, *Integral specializations of families of rational functions*, PJM 190, 1999, 45–85:


63. with E. Klassen and Y. Kopeliovic, *Alternating groups as monodromy groups of genus one covers*, PAMS 129 (2000), 111–119:


65. with P. Bailey, *Hurwitz monodromy, spin separation and higher levels of a Modular Tower*, Proceedings Symposia in Pure Mathematics 70 (2002) editors M. Fried and
Y. Ihara, 1999 Arithmetic Fundamental Groups and Noncommutative Algebra at MSRI, 79–221:
68. with W. Aitken and L. Holt, Davenport Pairs over finite fields, PJM 216, No. 1 (2004), 1–38:
69. Relating two genus 0 problems of John Thompson, Volume for John Thompson’s 70th birthday, in Progress in Galois Theory, H. Voelklein and T. Shaska editors 2005 Springer Science, 51–85:
70. What Gauss told Riemann about Abel’s Theorem, on the Abel Website at the Danish National Academy of Sciences: presented in the Florida Mathematics History Seminar, Spring 2002, as part of John Thompson’s 70th birthday celebration.
71. The place of exceptional covers among all diophantine relations, J. Finite Fields 11 (2005) 367–433:
73. Regular realizations of p-projective quotients and modular curve-like towers, Oberwolfach report #25, on the conference on pro-p groups, April (2006), 64–67:


The following papers are on-line: #81, #82 and #83 go together: #83 is a book, 2/3rds complete, fully outlined, with backdrop two books of Serre’s: “Topics in Galois Theory,” for which I was a reviewer, and “Abelian ℓ-adic representations.” I am completing this book while in Boulder area, expecting to lecture on it at U. of Colorado in a seminar.

On it I did presentations an Oberwolfach, Germany Conference in April, 2018, of which I am a co-organizer with Pierre Débes of Lille and Benjamin Collas at #81 and #82 give full proof details of the major conclusion to the book. Yet, without the book, including its historical context, they were getting unwieldy. #84 is an enhancement of recent results of Fedor Pakovich, who had an irreducibility constraint that was basically untestable. His result was based on papers of mine at the beginning of my career. It is complete, but needs polishing before I put it on the ArXiv. A prelude to #84 started as a short section in #77.


83. *Monodromy, ℓ-adic representations and the Inverse Galois Problem*, Latest version: 08/01/18,


84. with I. Gusić, *Genus 0 (or 1) components of variables separated equations*, #42 http://www.math.uci.edu/ mfried/paplist-cov.html.

2. RESEARCH MONOGRAPHS, MAJOR REVIEWS, ETC.

2.1. Monographs.


2.2. Preprints.

1. **Brauer groups and Jacobians**, 20 page preprint.


3. **Rigidity and applications of the classification of simple groups to monodromy, Part II**: Applications of connectivity, Davenport and Hilbert-Siegel Problem, 55 pgs.

4. with R. Guralnick, **Radicals don't uniformize the generic curve of genus g > 6**, 50 pgs.


6. with J. Del Castillo, **Ax's Conjecture for C1,d fields**, 24 pages, preprint.


2.3. Teaching related manuscripts.


2. **An Interview Project to Locate Factors that Encourage Minority 8th and 9th Graders in the Santa Ana School District to Participate in Math-Science Tracks**, 6 pages.

3. **UCI Summer Mathematics Institute, Mentor Teacher project.** 1st year report, 1984-85, 110 pages.


Math. Dept., Emeritus, UC Irvine

*E-mail address: mfried@math.uci.edu, mfri4@aol.com*