Mathematical Publications of Lindsay N. Childs

Books.

• Cryptography and Error Correction, an Algebraic Introduction and Real-World Applications, Springer Undergraduate texts in Mathematics and Technology (SUMAT) Springer Nature, 2019 (also an online manual, Solutions to Exercises, to accompany the book).

• Taming Wild Extensions: Hopf Algebras and Local Galois Module Theory, American Mathematical Society Mathematical Surveys and Monographs, 2000.

• A Concrete Introduction to Higher Algebra, Springer-Verlag, New York (Undergraduate Texts in Mathematics series) 1979; Second Edition, 1995; second corrected printing, 1997; softcover printing, 2000; Third Edition, 2008; Algebra, un'introduzione concreta, (translation of the First Edition by Carlo Traverso), ETS Editrice Pisa, 1989.

Research papers.

2010-19.

• L. N. Childs, On the Galois correspondence for Hopf Galois structures arising from radical algebras and Zappa-Szép groups, arXiv:1907.07711, 19 July 2019; submitted to Publ. Math. (Barcelona), August, 2019.

• L. N. Childs, Bi-skew braces and Hopf Galois structures, New York J. Math 25 (2019), 574-588.

• L. N. Childs, Left skew braces and the Galois correspondence for Hopf Galois extensions, arxiv:1802l03448, J. Algebra 511 (2018), 270-291.

• L. N. Childs, C. Greither, Bounds on the number of ideals in finite commutative nilpotent F_p-algebras, arxiv:1706.02518; Publ. Math. Debrecen 92 (2018), 495-516.

• L. N. Childs, On the Galois correspondence for Hopf Galois extensions, New York J. Math. 23 (2017), 1-10.

• L. N. Childs, Abelian Hopf Galois structures from almost trivial commutative nilpotent F_p-algebras, arxiv.math 1604.05269 (2016), revised and retitled in August, 2019 from: "Obtaining abelian Hopf Galois structures from finite commutative nilpotent rings". Submitted to New York J. Math, August, 2019.

• L. N. Childs, On abelian Hopf Galois structures and finite commutative nilpotent rings, New York. J. Math. 21 (2015), 205-230.

• N. P. Byott, L. N. Childs, G. G. Elder, Scaffolds and generalized Galois module structure, arxiv:1308.2088, Annal. Inst. Fourier 68 (2018), 965-1010.

• N. P. Byott, L. N. Childs, Fixed point free pairs of homomorphisms and nonabelian Hopf Galois structures, New York J. Math. 18 (2012), 707-731.

• L. N. Childs, Fixed-point free endomorphisms of groups related to finite fields, Finite Fields and Their Applications 18 (2012), 661-673.

• L. N. Childs, Fixed-point free endomorphisms and Hopf Galois structures, Proc. Amer. Math. Soc. 141 (2013), 1255-1265.

• L. N. Childs, Hopf Galois structures on Kummer extensions of prime power degree, New York J. Math. 17 (2011) 51-74.

• S. C. Featherstonhaugh, A. Caranti, L. N. Childs, Abelian Hopf Galois structures on Galois field extensions of prime power order, Trans. Amer. Math. Soc. 364 (2012), 3675-3684.

2000-09.

• L. N. Childs, J. Corradino, Cayley's Theorem and Hopf Galois structures arising from semidirect products of cyclic groups, J. Algebra 308 (2007), 236-251.

• L. N. Childs, Some Hopf Galois structures arising from elementary abelian p-groups, Proc. Amer. Math. Soc. 135 (2007), 3453-3460.

• R. G. Underwood, L. N. Childs, Duality for Hopf orders, Trans Amer. Math. Soc. 358 (2006), 1117-1163.

• L. N. Childs, H. H. Smith, III, Dual Hopf orders in group rings of elementary abelian p-groups, J. Algebra 294 (2005), 489-518.

• L. N. Childs, Elementary abelian Hopf Galois structures and polynomial formal groups, J. Algebra 283 (2005), 292-316.

• L. N. Childs, Hopf Galois structures and complete groups, New York J. Math. 9 (2003), 99-115.

• L. N. Childs, R. G. Underwood, Duals of formal group Hopf orders, Illinois J. Math 48 (2004), 923-940.

• L. N. Childs, R. G. Underwood, Cyclic Hopf orders defined by isogenies of formal groups, American J. Math. 125 (2003), 1295-1334.

1990-99.

• S. Carnahan, L. N. Childs, Counting Hopf Galois structures on non-abelian Galois extensions, J. Algebra 218 (1999), 81-92.

• L. N. Childs, Hopf Galois structures on degree p^2 cyclic extensions of local fields, New York J. Math. 2 (1996), 86-102.

• C. Greither, L. N. Childs, p-elementary group schemes-constructions, and Raynaud's theory, Memoirs Amer. Math. Soc. vol. 136, No. 651 (1998), 91-117.

• L. N. Childs, J. Sauerberg, Degree 2 formal groups and Hopf algebras, Memoirs Amer. Math. Soc. vol. 136, No. 651 (1998), 55-90.

• L. N. Childs, D. Moss, J. Sauerberg, K. Zimmermann, Dimension two polynomial formal groups and Hopf algebras, Memoirs Amer. Math. Soc. vol. 136, No. 651 (1998), 21-54.

• L. N. Childs, D. Moss, J. Sauerberg, Dimension one polynomial formal groups, Memoirs Amer. Math. Soc. vol. 136, No. 651 (1998), 11-20.

• L. N. Childs, Introduction to polynomial formal groups and Hopf algebras, Memoirs Amer. Math. Soc. vol. 136, No. 651 (1998), 1-10.

• L. N. Childs, Galois extensions over local number rings, in Rings, Extensions and Homology, (A. Magid, ed.), Marcel Dekker, 1994, 41-66.

• L. N. Childs, D. Moss, Hopf algebras and local Galois module theory, in Advances in Hopf Algebras (J. Bergen, S. Montgomery, eds.) Marcel Dekker, 1994, 1-24.

• L. N. Childs, K. Zimmermann, Congruence-torsion subgroups of dimension one formal groups, J. Algebra 170 (1994), 929-955.

• L. N. Childs, On Hopf Galois extensions of fields and number rings, in Perspectives in Ring Theory, F. van Oystaeyen and L. LeBruyn eds., Kluwer, 1988, 117-1128.

• L. N. Childs, On the Hopf Galois theory for separable field extensions, Comm. Algebra 17 (1989), 809-825.

• L. N. Childs, Azumaya algebras which are not smash products, Rocky Mountain J. Math. 20 (1990), 75-89.

1980-89.

• L. N. Childs, Non-isomorphic equivalent Azumaya algebras, Canadian Math. Bull. 30 (1987), 340-343.

• L. N. Childs, Taming wild extensions with Hopf algebras, Trans. Amer. Math. Soc. 304 (1987), 111-140.

• L. N. Childs, Representing classes in the Brauer group of quadratic number rings as smash products, Pacific J. Math. 129 (1987), 243-255.

• L. N. Childs, Products of Galois objects and the Picard invariant map, Math J. Okayama Univ. 28 (1986) 29-36.

• L. N. Childs, S. Hurley, Tameness and local normal bases for objects of finite Hopf algebras, Trans. Amer. Math. Soc. 298 (1986), 763-778.

• L. N. Childs, Cyclic Stickelberger cohomology and descent of Kummer extensions, Proc. Amer. Math. Soc. 90 (1984), 505-510.

• L. N. Childs, Tame Kummer extensions and Stickelberger conditions, Illinois J. Math. 28 (1984), 547-554.

• L. N. Childs, A Stickelberger condition on cyclic Galois extensions, Canadian J. Math. 34 (1982), 686-690.

• L. N. Childs, Stickelberger relations on tame Kummer extensions of prime degree, Proc. Conference on Number Theory, Queen's Papers in Pure and Applied Math. 54 (1980), 249-256.

• L. N. Childs, M. Orzech, On modular group rings, normal bases and fixed points, American Mathematical Monthly 88 (1981), 142-145.

• L. N. Childs, Stickelberger relations and tame extensions of prime degree, Illinois J. Math 25 (1981), 258-266.

1970-79.

• L. N. Childs, Linearizing of n-ic forms and generalized Clifford algebras, Linear and Multilinear Algebra 5 (1978), 267-278.

L. N. Childs, On Brauer groups of some normal local rings, Brauer Groups, Evanston, 1975, Springer Lecture Notes in Math. 549 (1976), 1-15.

• L. N. Childs, The group of unramified Kummer extensions of prime degree, Proc. London Math. Soc. 35 (1977), 407-422.

• L. N. Childs, On the group of Galois extensions of prime degree, Proc. Conf. on Commutative Algebra, Queen's Lecture Notes on Pure and Applied Math. 42 (1975), 242-248.

• L. N. Childs, The full Brauer group and Cech cohomology, Chapter 13 of "The Brauer Group of Commutative Rings", by M. Orzech and C. Small, Pure and Applied Mathematics Series, Vol. 11, Marcel Dekker, 1975, 147-162.

• L. N. Childs, G. Garfinkel, M. Orzech, On the Brauer group and factoriality of normal domains, J. Pure Appl. Algebra 6 (1975), 111-123.

• L. N. Childs, The Brauer group of graded Azumaya algebras II: graded Galois extensions, Trans. Amer. Math. Soc. 204 (1975), 137-160.

• L. N. Childs, A. Magid, The Picard invariant of principal homogeneous spaces, J. Pure Applied Algebra 4 (1974), 273-286.

• L. N. Childs, Brauer groups of affine rings, in Ring Theory, Proceedings of the Oklahoma Conference, Marcel Dekker, 1974, 83-93.

• L. N. Childs, Mayer-Vietoris sequences and Brauer groups of non-normal domains, Trans. Amer. Math. Soc. 196 (1974), 51-67.

• L. N. Childs, G. Garfinkel, M. Orzech, The Brauer group of graded Azumaya algebras, Trans. Amer. Math. Soc. 175 (1973), 299-326.

• L. N. Childs, On normal Azumaya algebras and the Teichmuller cocycle map, J. Algebra 23 (1972), 1-17.

• L. N. Childs, On covering spaces and Galois extensions, Pacific J. Math. 37 (1971), 29-33.

• L. N. Childs, The exact sequence of low degree and normal algebras, Bull. Amer. Math. Soc. 76 (1970), 1121-1124.

• L. N. Childs, Abelian Galois extensions of rings containing roots of unity, Illinois J. Math. 15 (1971), 273-280.

1966-69.

• L. N. Childs, On projective modules and automorphisms of central separable algebras, Canadian J. Math. 21 (1969), 44-53.

• L. N. Childs, A note on the fixed ring of a Galois extension, Osaka J. Math 4 (1967), 173-175.

• L. N. Childs, F. R. DeMeyer, On automorphisms of separable algebras, Pacific J. Math. 23 (1967), 25-34.

Non-mathematical publications.

• Helderberg Escarpment Planning Guide, a project of the Helderberg Escarpment Planning Committee (coed. with Daniel A. Driscoll), Albany County Land Conservancy, 2002. Available at www.mohawkhudson.org/pubs.htm .

• "McKownville, News and Comment", a sequence of at least 120 columns appearing in the Altamont Enterprise (Altamont, NY) between 1980 and 1986. Scanned copies of the newspapers are obtainable at historicnewspapers.guilpl.org .

Revised 8/19