

## Curriculum Vitae:

Name: Weiss, Alfred

1971 B.Sc., University of Alberta

1973 M.S., Ohio State University

1980 Ph.D., Ohio State University

1980-81 NSERC Post-Doctoral Fellow, University of Alberta

1980-86 Assistant Professor, Department of Mathematics, University of Alberta

1986-90 Associate Professor, Department of Mathematics, University of Alberta

1990- Professor, Department of Mathematics, University of Alberta

1993-94 Visiting Scientist, Fields Institute

1998- Fellow of the Royal Society of Canada

2000-01 McCalla Professor, University of Alberta

## Publications

1. Idempotents in group rings, *J. Pure & Appl. Algebra* **16** (1980): 207-213.
2. (with G. Cliff and S.K. Sehgal) Units of integral group rings of metabelian groups, *J. Algebra* **37** (1981): 167-185.
3. (with I. Musson) Integral group rings with residually nilpotent unit groups, *Arch. Math.* **38** (1982): 514-530.
4. The least prime ideal, *J. Reine Angew. Math.* **338** (1983): 56-94.
5. Characteristic polynomials of symmetric matrices, *Ternary Quadratic Forms and Norms*, O. Taussky (ed.), Marcel Dekker (1982): 59-74.
6. (with A.H. Rhemtulla and M. Yousif) Solvable groups with  $\pi$ -isolators, *Proc. A.M.S.* **90** (1984): 173-177.
7. Girths of bipartite sextet graphs, *Combinatorica* **4** (1984): 241-245.
8. (with K. Hoechsmann and S.K. Sehgal) Cyclotomic units and the unit group of an elementary abelian group ring, *Arch. Math.* **45** (1985):5-7.
9. (with G. Cliff) Crossed product and hereditary orders, *Pacific J. Math.* **122** (1986): 333-345.
10. (with S.K. Sehgal) Torsion units in integral group rings of some metabelian groups, *J. Algebra* **103** (1986): 490-499.

11. (with G. Cliff) Crossed product orders and wild ramification, *Proceedings of 1984 Oberwolfach Conference on Orders and Their Applications*, Lecture Notes in Mathematics, 1142, Springer, Berlin (1985): 96-104.
12. (with Z. Marciniak, J. Ritter and S.K. Sehgal) Torsion units in integral group rings of some metabelian groups II, *J. Number Theory* **25** (1987): 340-352.
13. (with T.D. Rogers) The number of orientation reversing cycles in the quadratic map, *Canadian Mathematical Society Conference Proceedings* **8** (1987): 703-711.
14. (with G. Cliff and W. Plesken) Order-theoretic properties of the center of a block, *AMS Proceedings of Symposia in Pure Mathematics* **47** (1987): 413-420.
15. Rigidity of p-adic p-torsion, *Ann. of Math.* **127** (1988): 317-332.
16. (with A.H. Rhemtulla) Groups with permutable subgroup products, *Group Theory: Proceedings of the Singapore Group Theory Conference 1987*, de Gruyter, Berlin (1989): 485-495.
17. (with G. Cliff) Moody's Induction Theorem, *Illinois J. Math.* **32** (1988): 489-500.
18. (with G. Cliff) Torsion free space groups and permutation lattices for finite groups, *Contemporary Mathematics* **93** (1989): 123-132.
19. (with A. Bhandari) Residual solvability of unit groups of local group rings, *Communications in Algebra* **17** (1989): 2635-2662.
20. (with G. Cliff) Summands of permutation lattices for finite groups, *Proc. A.M.S.* **110** (1990): 17-20.
21. (with A. Pianzola) Monstrous  $E_{10}$ 's and a generalization of a theorem of L. Solomon, *C.R. Math. Rep. Acad. Sci. Canada* **11** (1989): 189-194.
22. Torsion units in integral group rings, *J. Reine Angew. Math.* **415** (1991): 175-187.
23. (with G. Cliff and M. Harris) Relative projectivity of representations of group-graded rings, *Arch. Math.* **56** (1991): 533-538.
24. (with A. Pianzola) The rationality of elements of prime order in compact connected simple Lie groups, *J. Algebra* **144** (1991): 510-521.
25. (with G. Cliff and J. Ritter) Group representations and integrality, *J. Reine Angew. Math.* **426** (1992): 193-202.
26. (with J. Ritter) Galois action on integral representations, *J. London Math. Soc.* **46** (1992): 411-431.

27. (with J. Ritter) Regulators and Galois stability, *Math. Machr.* **158** (1992): 27-41.
28. Rigidity of  $\pi$ -adic  $p$ -torsion. Appendix: "Units in integral group rings" by S.K. Sehgal, Longmans (1993): 309-329.
29. (with R.M. Guralnick) Transitive permutation lattices in the same genus and embeddings of groups, *Linear Algebraic Groups and their Representations* (ed. M. Schacher, et al.) Contemporary Mathematics **153** (1993): 21-33.
30. (with K.W. Gruenberg) Genera of envelopes, *Proceedings of the ICRA VI Conference* (ed. V. Dlab, H. Lenzing), Canadian Mathematical Society, **14** (1993): 221-232.
31. (with J. Ritter) On the local Galois structure of S-units, *Algebra and Number Theory*, Proceedings of a Conference held at Essen, Germany (ed. G. Frey, J. Ritter), de Gruyter, Berlin (1994): 229-245.
32. (with R.V. Moody) On shelling  $E_8$  quasicrystals, *J. Number Theory* **47** (1994): 405-412.
33. (with X. Wang) Permutation summands over  $Z$ , *J. Number Theory* **47** (1994): 413-434.
34. (with K.W. Gruenberg) Galois invariants for units, *Proc. London Math. Soc.* **70** (1995): 264-284.
35. (with K.W. Gruenberg) Galois invariants for local units, *Quarterly J. Math.* **47** (1996): 25-39.
36. (with J. Ritter) A Tate sequence for global units, *Compositio Mathematica* **102** (1996): 147-178.
37. Multiplicative Galois Module Structure. Fields Institute Monographs 5, A.M.S. (1996).
38. (with J. Ritter) Cohomology of units and L-values at zero, *Journal of the American Mathematical Society* **10** (1997): 513-552.
39. (with K.W. Gruenberg) Galois invariants for S-units, *American Journal of Mathematics* **119** (1997): 953-983.
40. (with K.W. Gruenberg and J. Ritter) On Chinburg's root number conjecture, *Jber. d. Dt. Math. – Verein.* **100** (1998): 36-44.
41. (with G. Cliff) Finite groups of matrices over group rings, *Transactions of the A.M.S.*, **352** (2000): 457-475.

42. (with K.W. Gruenberg and J. Ritter) A local approach to Chinburg's root number conjecture, *Proc. London Math. Soc.* **79** (1999): 47-80.
43. (with J. Ritter) The Lifted Root Number Conjecture for some cyclic extensions of  $\mathbb{Q}$ , *Acta Arithmetica*, **XC.4** (1999): 313-340.
44. (with K.W. Gruenberg) Capitulation and Transfer Kernels, *Journal de Theorie des Nombres de Bordeaux* **12** (2000): 219-226.
45. On shelling icosahedral quasicrystals, *Directions in mathematical quasicrystals*, 161-176, CRM Monogr. Ser., **13**, A.M.S. (2000).
46. (with J. Ritter) The lifted root number conjecture and Iwasawa theory, *Memoirs of the A.M.S.*, volume 157, number 748 (2002).
47. (with O. Neisse) On self contragredient genera of  $Z[G]$  – lattices, *Bull. London Math. Soc.* **35** (2003): 203-208.
48. (with J. Ritter) Toward equivariant Iwasawa theory, *manuscripta math.* **109** (2002): 131-146.
49. (with K.W. Gruenberg) Capitulation and transfer triples, *Proc. London Math. Soc.* **87** (2003): 273-290.
50. (with J. Ritter) Representing  $\Omega(\ell^\infty)$  for real abelian fields, *Journal of Algebra and its Applications*, **2** (2003), 237-276.
51. (with J. Ritter) Toward equivariant Iwasawa theory, II, *Indagationes Math.* **15** (2004): 549-572.
52. (with J. Ritter) Toward equivariant Iwasawa theory, IV, *Homology, Homotopy and Applications* **7** (2005): 155-171.
53. (with K.W. Gruenberg) Transfer kernels for finite groups, *J. Algebra* **300** (2005): 35-43.
54. (with J. Ritter) Toward equivariant Iwasawa theory, III, *Math. Annalen* **336** (2006): 27-49.
55. (with J. Ritter) Nonabelian pseudomeasures and congruences between abelian Iwasawa L-functions, *Pure and Applied Mathematics Quarterly* **4** (2008): 1085-1106.
56. (with J. Ritter) Congruences between abelian pseudomeasures, *Math. Res. Lett.* **15** (2008): 715-725.

57. (with J. Ritter) Equivariant Iwasawa theory: an example, *Documenta Math.* **13**  
(2008):117-129.