

## List of publications

Jørn Børbling Olsson

### I. Research publications

1. Odd-order extensions of some orthogonal groups, *J. Algebra* 28 (1974) 573-596
2. On 2-blocks with quaternion and quasidihedral defect groups, *J. Algebra* 36 (1976), 212-241
3. McKay numbers and heights of characters, *Math. Scand.* 38 (1976), 25-42
4. The colength sequence of some  $T$ -ideals (*with A. Regev*), *J. Algebra* 38 (1976), 100-111
5. An application of representation theory to  $PI$ -algebras (*with A. Regev*), *Proc. Amer. Math. Soc.* 55 (1976), 253-257
6. On the blocks of  $GL(n, q)$ , *Trans. Amer. Math. Soc.* 22 (1976), 143-156
7. On the subsections for certain 2-blocks, *J. Algebra* 46 (1977), 497-510
8. On monomial  $p^a$ -representations of finite  $p$ -groups, *Math. Scand.* 41 (1977), 218-224
9. On the  $T$ -ideal generated by a standard identity (*with A. Regev*), *Israel J. Math.* 26 (1977), 97-104
10. Lower defect groups, *Comm. Algebra* 8 (1980), 260-288
11. Inequalities for block theoretic invariants. In "Representations of algebras", Springer Lecture Notes 903 (1981), 270-284
12. Aus dem Nachlass von R. Brauer. Vorlesungen aus dem FB Mathematik der Univ. Essen, Band 8, 1982 (Book)
13. On subpairs and modular representation theory, *J. Algebra* 76 (1982), 261-279
14. Character correspondences in finite general linear, unitary and symmetric groups (*with G. Michler*), *Math. Z.* 184 (1983), 203-233
15. A note on the cores of partitions, *Bayreuther Math. Schriften* 4 (1983), 109-120
16. On the number of characters in blocks of finite general linear, unitary and symmetric groups, *Math. Z.* 186 (1984), 41-47
17. Subpair multiplicities in finite groups (*with M. Broué*), *J. reine ang. Math.* 371 (1986), 125-146
18. Lower defect groups in symmetric groups, *J. Algebra* 104 (1986), 37-56
19. Remarks on symbols, hooks and degrees of unipotent characters, *J. Combinatorial Th. (Ser. A)* 42 (1986), 223-238
20. Block invariants in certain groups, *Proc. Symp. Pure Math.* 47,I (1987), 471-474 (Survey)
21. Frobenius symbols for partitions and degrees of spin characters, *Math. Scand.* 61 (1987), 223-247
22. A note on a theorem of Wada, *Hokkaido Math. J.* 16 (1987), 145-150
23. On  $p$ -quotients for spin characters (*with A.O. Morris*), *J. Algebra* 119 (1988), 51-82
24. The Alperin-McKay conjecture holds in covering groups of symmetric and alternating groups,  $p$  odd (*with G. Michler*), *J. reine ang. Math.* 405 (1990), 78-111
25. On the  $p$ -blocks of symmetric and alternating groups and their covering groups, *J. Algebra* 128 (1990), 188-213
26. Partition identities with an application to group representation theory (*with G.E. Andrews*), *J. reine ang. Math.* 413 (1991), 198-212
27. Weights for covering groups of symmetric and alternating groups,  $p$  odd (*with G. Michler*), *Can. J. Math.* 43 (1991), 792-813
28. Modular cocharacters for  $PI$ -algebras (*with A. Regev*), *J. Algebra* 143 (1991), 93-118
29. Congruences like Ramanujan's for powers of the partition function (*with I. Kiming*), *Arch. Math.* 59 (1992), 348-360
30. The number of modular characters in certain blocks, *Proc. London Math. Soc.* 65 (1992), 245-264
31. Combinatorics and representations of finite groups, *Vorlesungen aus dem FB Mathematik der Univ. Essen*, Heft 20, 1993 (Book)

32. Fourier transforms with respect to monomial representations (*with S. Linton and G. Michler*), Math. Ann. 297 (1993), 253-268
33. On Mullineux symbols (*with C. Bessenrodt*), J. Combinatorial Th. (Ser. A) 68 (1994), 340-360
34. Decomposition matrices for spin characters of symmetric groups at characteristic 3 (*with C. Bessenrodt and A.O. Morris*), J. Algebra 164 (1994), 146-172
35. Partition identities and labels for some modular characters (*with G.E. Andrews and C. Bessenrodt*), Trans. Amer. Math. Soc. 344 (1994), 597-617
36. Dade's conjecture for symmetric groups (*with K. Uno*), J. Algebra 176 (1995), 534-560
37. A refinement of a partition identity and blocks of some modular characters, (*with G.E. Andrews and C. Bessenrodt*), Arch. Math. 66 (1996), 101-113
38. Dade's conjecture for general linear groups in the defining characteristic (*with K. Uno*), Proc. London Math. Soc. (3) 72 (1996), 359-384
39. Heights of spin characters in characteristic 2 (*with C. Bessenrodt*). Finite Reductive Groups, Luminy 1994, Progress in Mathematics 141 (1997), 51-71
40. The 2-blocks of the covering groups of the symmetric groups (*with C. Bessenrodt*), Adv. in Math. 129 (1997), 261-300
41. On residue symbols and the Mullineux conjecture (*with C. Bessenrodt*), J. Alg. Comb. 7 (1998), 227-251
42. Branching of modular representations of the alternating groups (*with C. Bessenrodt*), J. Algebra 209 (1998), 143-174
43. Residue symbols and Jantzen-Seitz partitions (*with C. Bessenrodt*), J. Combinatorial Th. (Ser. A) 81 (1998), 201-230
44. On properties of the Mullineux map with an application to Schur modules (*with C. Bessenrodt and M.Xu*), Math. Proc. Camb. Phil. Soc. 126 (1999), 443-459
45. Zeros of characters of finite groups (*with G. Malle and G. Navarro*), J. Group Theory 3 (2000), 353-368
46. Spin representations and powers of 2 (*with C. Bessenrodt*), Algebras and Representation Theory 3 (2000), 289-300
47. Prime power degree representations of the symmetric and alternating groups (*with A.Balog, C. Bessenrodt and K.Ono*), J. London Math. Soc. 64 (2001), 344-356
48. Prime power degree representations of the double covers of the symmetric and alternating groups (*with C. Bessenrodt*), J. London Math. Soc. 66 (2002), 313-324
49. A note on Cartan matrices for symmetric groups (*with C. Bessenrodt*), Arch. Math. 81(2003), 497-504.
50. Generalized blocks for symmetric groups (*with B. Külshammer and G.R. Robinson*), Invent. Math., 151 (2003) 513-552.
51. Regular character tables of symmetric groups, The Electronic Journal of Combinatorics Vol 10 (2003) N3
52. On character tables related to the alternating groups (*with C. Bessenrodt*) Séminaire Lotharingien de Combinatoire 52 (2004) B52c
53. Weights of partitions and character zeros (*with C. Bessenrodt*) The Electronic Journal of Combinatorics 11(2) (2004-2005) R5, 13 pp
54. Spin representations, powers of 2 and the Glaisher map (*with C. Bessenrodt*), Algebras and Representation Theory 8 (2005), 1-10
55. Properties of some character tables related to the symmetric groups (*with C. Bessenrodt and R.P.Stanley*), J. Alg. Comb. 21 (2005), 163-177
56. On Cartan matrices and lower defect groups for covering groups of symmetric groups (*with C. Bessenrodt*), Trans. Amer. Math. Soc. 358 (2006), 3623-3635.
57. Separating characters by blocks (*with C. Bessenrodt and G. Malle*), J. London Math. Soc 73(2006), 493-505
58. Spin block inclusions (*with C. Bessenrodt*), J. Algebra 306 (2006), 3-16

59. On block identities and block inclusions, Oberwolfach Reports 3 (2006), 912-914
60. On the Navarro-Willems conjecture for blocks of finite groups (*with C. Bessenrodt, G. Navarro and PH Tiep*), J. Pure Applied Algebra 208 (2007), 481-484
61. Block inclusions and cores of partitions (*with D. Stanton*), Aequationes Math. 74 (2007), 90-110
62. A theorem on on the cores of partitions, J. Combin. Theory Ser. A, 116 (2009), 733-740
63. Core partitions and block coverings, Proc. Amer. Math. Soc. 137 (2009), 2943-2951
64. Sign conjugacy classes in symmetric groups, J. Algebra 322 (2009), 733-740.
65. Generalized hook lengths in symbols and partitions (*with C. Bessenrodt and J.-B. Gramain*), preprint 2011, to appear in J. Alg. Comb.
66. On bar lengths in partitions (*with J.-B. Gramain*), preprint 2011, to appear in Proc. Edinburgh Math.Soc
67. Generalized hook lengths and relative hook degree formulas, survey 2011, to appear in Oberwolfach Reports
68. Unique path partitions: Characterization and Congruence (*with C. Bessenrodt and James A. Sellers*), preprint 2011.
69. Submatrices of character tables and basic sets (*with C. Bessenrodt*), preprint 2011.

## II. Various publications, mainly in Danish

(In part available from my homepage).

- Atonale funktioner. (En anmeldelse af "Musikalsk analyse efter Forte-metoden") (*med Peter Brask*), DoReMi - Musikvidenskabeligt Instituts Fagblad 4(1991) p. 10-19
- 1 - 2 - 3 (om identiteter af G.E. Andrews), FAMØS september 1996
- Det virtuelle forskningsbibliotek, Matilde 4 (2000)
- En dansk matematik-preprint server (Artikel i Biblioteksårbog 2002, s 65-67, udgivet af Biblioteksstyrelsen Juni 2003)
- En sætning om partitioner, FAMØS december 2002, p. 9-11
- DMF's preprint server, Matilde 18 (2003)
- On the sequence A085642 (*with C. Bessenrodt*), in: The On-Line Encyclopedia of Integer Sequences (2004)
- Det matematiske grundlag for den udvidede tolvtonemetode (*med Peter Brask*), Matilde 28 (2006)
- Three-group numbers (2006)
- Sange i parentes, Matilde 32 (2007)
- Lecture Notes Algebra 3 (*with CU Jensen*) (2006-2007)
- Lecture notes on Group theory, written in Danish (1998-99, revised 2004)
- Lecture notes on Classical groups, written in Danish (1998, revised 2004)
- Kombinatorik, Partitioner og Repræsentationsteori, Kompendium (2004-2006)