

## LIST OF PUBLICATIONS

PHAM HUU TIEP

### A. Books

- (1) “Finite Groups 2003”, Proceedings of the Gainesville Conference on Finite Groups, March 6 - 12, 2003, de Gruyter, Berlin, New York 2004, 417 pp. (co-editor with C. Y. Ho, P. Sin, and A. Turull).
- (2) “Orthogonal Decompositions and Integral Lattices”, de Gruyter, Berlin, New York 1994, 535 pp. (joint book with A. I. Kostrikin).

### B. Papers

- (3) Waring problem for finite simple groups, *Annals of Math.* (to appear, joint work with M. Larsen and A. Shalev).
- (4) A problem of Kollár and Larsen on finite linear groups and crepant resolutions, *J. Europ. Math. Soc.* (to appear, joint work with R. M. Guralnick).
- (5) Brauer’s height zero conjecture for the 2-blocks of maximal defect, *J. Reine Angew. Math.* (to appear, joint work with G. Navarro).
- (6) Products of squares in finite simple groups, *Proc. Amer. Math. Soc.* (to appear, joint work with M. Liebeck, E. O’Brien, and A. Shalev).
- (7) Representation growth in positive characteristic and conjugacy classes of maximal subgroups, *Duke Math. J.* (to appear, joint work with R. M. Guralnick and M. Larsen).
- (8) Commutators in finite quasisimple groups, *Bull. London Math. Soc.* (to appear, joint work with M. Liebeck, E. O’Brien, and A. Shalev).
- (9) Cycle indices for finite orthogonal groups of even characteristic, *Trans. Amer. Math. Soc.* (to appear, joint work with J. Fulman and J. Saxl).
- (10) First cohomology groups of finite Chevalley groups in cross characteristic, *Annals of Math.* **174** (2011), 543 – 559 (joint work with R. M. Guralnick).
- (11) A reduction theorem for the Alperin weight conjecture, *Invent. Math.* **184** (2011), 529 – 565 (joint work with G. Navarro).
- (12) Real class sizes and real character degrees, *Math. Proc. Camb. Phil. Soc.* **150** (2011), 47 – 71 (joint work with R. M. Guralnick and G. Navarro).
- (13) The Ore conjecture, *J. Europ. Math. Soc.* **12** (2010), 939 – 1008 (joint work with M. Liebeck, E. O’Brien, and A. Shalev).

- (14) Degrees of rational characters of finite groups, *Adv. Math.* **224** (2010), 1121 – 1142 (joint work with G. Navarro).
- (15) Representations of general linear groups which are irreducible over subgroups, *Amer. J. Math.* **132** (2010), 425 – 473 (joint work with A. S. Kleshchev).
- (16) On  $p$ -Brauer characters of  $p'$ -degree and self-normalizing Sylow  $p$ -subgroups, *J. Group Theory* **13** (2010), 785 – 797 (joint work with G. Navarro).
- (17) Dual pairs of finite classical groups in cross characteristic, *Contemp. Math.* **524** (2010), pp. 161 – 179.
- (18) Non-vanishing elements of finite groups, *J. Algebra* **323** (2010), 540 – 545 (joint work with S. Dolfi, G. Navarro, E. Pacifici, and L. Sanus).
- (19) Brauer characters of prime power degrees and conjugacy classes of prime power lengths, *Alg. Colloq.* **17** (2010), 541 – 548 (joint work with W. Willems).
- (20) Representations of finite special linear groups in non-defining characteristic, *Adv. Math.* **220** (2009), 478 – 504 (joint work with A. S. Kleshchev).
- (21) Real characters and degrees, *Israel J. Math.* **171** (2009), 157 – 173 (joint work with G. Navarro and L. Sanus).
- (22) Groups with just one character degree divisible by a given prime, *Trans. Amer. Math. Soc.* **361** (2009), 6521 – 6547 (joint work with I. M. Isaacs, A. Moretó, and G. Navarro).
- (23) On the restriction of cross characteristic representations of  ${}^2F_4(q)$  to proper subgroups, *Archiv Math.* **93** (2009), 415 – 423 (joint work with F. Himstedt and H. N. Nguyen).
- (24) Symmetric powers and a conjecture of Kollar and Larsen, *Invent. Math.* **174** (2008), 505 – 554 (joint work with R. M. Guralnick).
- (25) Primes dividing the degrees of the real characters of finite groups, *Math. Z.* **259** (2008), 755 – 774 (joint work with S. Dolfi and G. Navarro).
- (26) Hall-Higman type theorems for semisimple elements of finite classical groups, *Proc. London Math. Soc.* **97** (2008), 623 – 668 (joint work with A. E. Zalesskii).
- (27) Rational irreducible characters and rational conjugacy classes in finite groups, *Trans. Amer. Math. Soc.* **360** (2008), 2443 – 2465 (joint work with G. Navarro).
- (28) Brauer characters with cyclotomic field of values, *J. Pure Appl. Algebra* **212** (2008), 628 – 635 (joint work with G. Navarro and A. Turull).
- (29) Prime divisors of character degrees, *J. Group Theory* **11** (2008), 341 – 356 (joint work with A. Moretó).

- (30) Cross characteristic representations of  ${}^3D_4(q)$  are reducible over proper subgroups, with an appendix by F. Himstedt, *J. Group Theory* **11** (2008), 657 – 668 (joint work with H. N. Nguyen).
- (31)  $p$ -rational characters and self-normalizing Sylow  $p$ -subgroups, *Represent. Theory* **11** (2007), 84 – 94 (joint work with G. Navarro and A. Turull).
- (32) Groups with two real Brauer characters, *J. Algebra* **307** (2007), 891 – 898 (joint work with G. Navarro and L. Sanus).
- (33) Mutually unbiased bases and orthogonal decompositions of Lie algebras, *Quantum Information and Communication* **7** (2007), 371 – 382 (joint work with P. Boykin, M. Sitharam, and P. Wocjan).
- (34) On the Navarro-Willems conjecture for blocks of finite groups, *J. Pure Appl. Algebra* **208** (2007), 481 – 484 (joint work with C. Bessenrodt, G. Navarro, and J. Olsson).
- (35) Rational Brauer characters, *Math. Annalen* **335** (2006), 675 – 686 (joint work with G. Navarro).
- (36) Finite groups admitting grassmannian 4-designs, *J. Algebra* **306** (2006), 227 – 243.
- (37) Characters of  $p'$ -degree with cyclotomic field of values, *Proc. Amer. Math. Soc.* **134** (2006), 2833 – 2837 (joint work with G. Navarro).
- (38) Decompositions of small tensor powers and Larsen's conjecture, *Represent. Theory* **9** (2005), 138 – 208 (joint work with R. M. Guralnick).
- (39) Rank 3 permutation modules for finite classical groups, *J. Algebra* **291** (2005), 551 – 606 (joint work with P. Sin).
- (40) The non-coprime  $k(GV)$  problem, *J. Algebra* **293** (2005), 185 – 242 (joint work with R. M. Guralnick).
- (41) Real conjugacy classes in algebraic groups and finite groups of Lie type, *J. Group Theory* **8** (2005), 291 – 315 (joint work with A. E. Zalesskii).
- (42) Cross characteristic representations of even characteristic symplectic groups, *Trans. Amer. Math. Soc.* **356** (2004), 4969 – 5023 (joint work with R. M. Guralnick).
- (43) On restrictions of modular spin representations of symmetric and alternating groups, *Trans. Amer. Math. Soc.* **356** (2004), 1971 – 1999 (joint work with A. S. Kleshchev).
- (44) Unipotent elements of finite groups of Lie type and realization fields of their complex representations, *J. Algebra* **271** (2004), 327 – 390 (joint work with A. E. Zalesskii).
- (45) Finite simple unisingular groups of Lie type, *J. Group Theory* **6** (2003), 271 – 310 (joint work with R. M. Guralnick).

- (46) The modulo 2 structure of rank 3 permutation modules for odd characteristic symplectic groups, *J. Algebra* **268** (2003), 463 – 483 (joint work with J. M. Lataille and P. Sin).
- (47) Low dimensional representations of finite quasisimple groups, Proceedings of the London Math. Soc. Symposium “Groups, Geometries, and Combinatorics”, Durham, July 2001, A. A. Ivanov et al eds., World Scientific, 2003, N. J. et al, pp. 277 – 294.
- (48) Mod  $p$  reducibility of unramified representations of finite groups of Lie type, *Proc. London Math. Soc.* **84** (2002), 439 – 472 (joint work with A. E. Zalesskii).
- (49) Reducibility modulo  $p$  of complex representations of finite groups of Lie type: Asymptotical result and small characteristic case, *Proc. Amer. Math. Soc.* **130** (2002), 3177 – 3184 (joint work with A. E. Zalesskii).
- (50) Cross characteristic representations of odd characteristic symplectic groups and unitary groups, *J. Algebra* **257** (2002), 291 – 347; Addendum, *J. Algebra* **299** (2006), 443 – 446 (joint work with R. M. Guralnick, K. Magaard, and J. Saxl).
- (51) Irreducibility of tensor squares, symmetric squares, and alternating squares, *Pacific J. Math.* **202** (2002), 379 – 427 (joint work with K. Magaard and G. Malle).
- (52) Irreducible tensor products of representations of finite quasi-simple groups of Lie type, in: ‘Modular Representation Theory of Finite Groups’, M. J. Collins, B. J. Parshall, L. L. Scott, eds., Walter de Gruyter, Berlin et al, 2001, pp. 239 – 262 (joint work with K. Magaard).
- (53) Symmetric squares, spherical designs, and lattice minima, *J. Algebra* **240** (2001), 185 – 208 (joint work with W. Lempken and B. Schröder).
- (54) Appendix: 2-designs and code minima, *J. Algebra* **240** (2001) 205 – 208 (joint work with C. Bachoc).
- (55) Some aspects of finite linear groups: A survey, *J. Math. Sciences* **100** (2000), 1893 – 1914 (joint work with A. E. Zalesskii).
- (56) Low-dimensional representations of the special linear group in cross characteristics, *Proc. London Math. Soc.* **78** (1999), 116 – 138 (joint work with R. M. Guralnick).
- (57) Modular representations of  $GL(3, \mathbb{F}_p)$ , symmetric squares, and mod- $p$  cohomology of  $GL(3, \mathbb{Z})$ , *J. Algebra* **222** (1999), 376 – 399 (joint work with A. Ash).
- (58) Lower bounds for the minima of certain symplectic and unitary group lattices, *Amer. J. Math.* (1999) **121** (1999), 889 – 918 (joint work with N. Dummigan).

- (59) Globally irreducible lattices, *Contemp. Math.* **249** (1999), 97 – 111.
- (60) Symplectic group lattices, *Trans. Amer. Math. Soc.* **351** (1999), 2101 – 2139 (joint work with R. Scharlau).
- (61) Globally irreducible representations of  $SL_3(q)$  and  $SU_3(q)$ , *Israel J. Math.* **109** (1999), 225 – 251.
- (62) Congruences for certain theta-series, *J. Number Theory* **71** (1998), 86 – 105 (joint work with N. Dummigan).
- (63) The  $p$ -intersection subgroups in quasi-simple and almost simple finite groups, *J. Algebra* **207** (1998), 1 – 42 (joint work with P. Fleischmann and W. Lempken).
- (64) The primitive  $p$ -Frobenius groups, *Proc. Amer. Math. Soc.* **126** (1998), 1337 – 1343 (joint work with P. Fleischmann and W. Lempken).
- (65) Some characterizations of the Weil representations of symplectic and unitary groups, *J. Algebra* **192** (1997), 130 – 165 (joint work with A. E. Zalesskii).
- (66) Symplectic groups, symplectic spreads, codes and unimodular lattices, *J. Algebra* **194** (1997), 113 – 156 (joint work with R. Scharlau).
- (67) Splitting fields for Jordan subgroups, in: ‘Finite Reductive Groups, Related Structures and Representations’, M. Cabanes ed., Progress in Math., vol. **141**, Birkhäuser, 1997, pp. 165 – 183 (joint work with A. M. Cohen).
- (68) Globally irreducible representations of finite groups and integral lattices, *Geometriae Dedicata* **64** (1997), 85 – 123.
- (69) Weil representations as globally irreducible representations, *Math. Nachr.* **184** (1997), 313 – 327.
- (70)  $p$ -Steinberg characters of finite simple groups, *J. Algebra* **187** (1997), 304 – 319.
- (71) Finite  $p'$ -semiregular groups, *J. Algebra* **188** (1997), 547 – 579 (joint work with P. Fleischmann and W. Lempken).
- (72) Minimal characters of the finite classical groups, *Comm. Algebra* **24** (1996), 2093 – 2167 (joint work with A. E. Zalesskii).
- (73) A remark on a theorem of V. F. R. Jones and P. de la Harpe, *Archiv Math.* **67** (1996), 367 – 378.
- (74) On the solvability of the kernel of any orthogonal decomposition, in: ‘Group Theory, Algebra, and Number Theory’, H. G. Zimmer ed., Walter de Gruyter, Berlin et al, 1996, pp. 1 – 12.
- (75) Basic spin representations of  $2S_n$  and  $2A_n$  as globally irreducible representations, *Archiv Math.* **64** (1995), 103 – 112.

- (76) Globally irreducible representations of the finite symplectic group  $Sp_4(q)$ , *Comm. Algebra* **22** (1994), 6439 – 6457.
- (77) Invariant lattices of types  $F_4$  and  $E_6$ : the automorphism groups, *Comm. Algebra* **21** (1993), no. 12, 4641 – 4677 (joint work with V. P. Burichenko).
- (78) Automorphism groups of some Mordell-Weil lattices, *Izv. Ross. Akad. Nauk Ser. Mat.* **56** (1992), no. 3, 509 – 537; English transl. in *Russian Acad. Sci. Izv. Math.* **40** (1993), no. 3, 477 – 501.
- (79) Basic spin representations of alternating groups, Gow lattices, and Barnes-Wall lattices, *Mat. Sb.* **183** (1992), no. 11, 99 – 116; English transl. in *Russian Acad. Sci. Sb. Math.* **77** (1994), no. 2, 351 – 365.
- (80) Invariant lattices of type  $E_8$  and their automorphism groups, *Algebra i Analiz*, **4** (1992), no. 5, 227–256; English transl. in *St. Petersburg Math. J.* **4** (1993), no. 5, 1029 – 1054.
- (81) A reduction theorem for invariant lattices of type  $A_n$ , *Nova J. Algebra and Geometry* **1** (1992), no. 3, 261 – 296.
- (82) A reduction theorem for invariant lattices of type  $A_n$ , *Dokl. Akad. Nauk SSSR* **319** (1991), no. 1, 78 – 82; English transl. in *Soviet Math. Dokl.* **44** (1992), no. 1, 75 – 79.
- (83) Irreducible  $J$ -decompositions of the Lie algebras  $A_{p^n-1}$ , *Mat. Zametki* **49** (1991), no. 5, 128 – 134; English transl. in *Math. Notes* **49** (1991), 531 – 535.
- (84) Classification of the irreducible orthogonal decompositions of simple complex Lie algebras of type  $A_n$ , *Algebra i Analiz* **3** (1991), no. 3, 86 – 109; English transl. in *St. Petersburg Math. J.* **3** (1992), no. 3, 571 – 593 (joint work with A. I. Kostrikin).
- (85) On orthogonal decompositions of Lie algebras of type  $D_p$  and  $C_p$ , *Vestnik Moskov. Univ. Ser. I Mat. Mekh.* 1991, no. 3, 13 – 16; English transl. in *Moscow Univ. Math. Bull.* **46** (1991), no. 3, 13 – 16.
- (86) A classification of the irreducible orthogonal decompositions of the simple complex Lie algebras of type  $B_n$ , *Comm. Algebra* **19** (1991), no. 10, 2729 – 2775.
- (87) Weil representations of finite symplectic groups, and Gow lattices, *Mat. Sb.* **182** (1991), no. 8, 1161 – 1183; English transl. in *Math. USSR-Sb.* **73** (1992), no. 2, 535 – 555.
- (88) Irreducible orthogonal decompositions of simple Lie algebras of type  $A_n$ , *Dokl. Akad. Nauk SSSR* **314** (1990), no. 4, 782 – 786; English transl. in *Soviet Math. Dokl.* **42** (1991), no. 2, 538 – 542 (joint work with A. I. Kostrikin).
- (89) A characteristic property of the multiplicative orthogonal decomposition of the Lie algebra  $D_4$ , *Vestnik Moskov. Univ. Ser. I Mat. Mekh.* 1990, no.

- 5, 49 – 53; English transl. in *Moscow Univ. Math. Bull.* **45** (1990), no. 5, 46 – 49.
- (90) Irreducible orthogonal decompositions in Lie algebras, *Mat. Sb.* **180** (1989), no. 10, 1396 – 1414; English transl. in *Math. USSR-Sb.* **68** (1991), no. 1, 257 – 275.
- (91) Lattices of root-type in Lie algebras  $D_{2^m}$  and  $B_{2^m-1}$ , *Vestnik Moskov. Univ. Ser. I Mat. Mekh.* 1989, no. 1, 100 – 102; English transl. in *Moscow Univ. Math. Bull.* **44** (1989), no. 1, 92 – 95.
- (92) Lattices of non-radical type in the Lie algebras  $B_3$  and  $D_4$ , *Uspekhi Mat. Nauk* **44** (1989), no. 1, 217 – 218; English transl. in *Russian Math. Surveys* **44** (1989), no. 1, 247 – 248.
- (93) Small lattices in Lie algebras  $A_{p-1}$ , *Vestnik Moskov. Univ. Ser. I Mat. Mekh.* 1989, no. 4, 70 – 72; English transl. in *Moscow Univ. Math. Bull.* **44** (1989), no. 4, 67 – 70.
- (94) Invariant sublattices in a Cartan subalgebra, *Vestnik Moskov. Univ. Ser. I Mat. Mekh.* 1988, no. 4, 72 – 75; English transl. in *Moscow Univ. Math. Bull.* **43** (1988), no. 4, 65 – 68.
- (95) Lattices in Lie algebras of type  $A_{p-1}$ : The Witt lattice and the Leech lattice, in: ‘Selected questions of algebra, geometry and discrete mathematics’, Proc. Young Scientists’ Conf. Algebra, Geometry and Topology, Moscow Univ., 1987, pp. 129 – 134 (in Russian).
- (96) Invariant lattices, the Leech lattice and its even unimodular analogues in Lie algebra  $A_{p-1}$ , *Mat. Sb.* **172** (1986), no. 8, 435 – 464; English transl. in *Math. USSR-Sb.* **58** (1986), 435 – 465 (joint work with A. I. Bondal and A. I. Kostrikin).
- (97) One construction of even unimodular lattices, *Vestnik Moskov. Univ. Ser. I Mat. Mekh.* 1986, no. 1, 54 – 56; English transl. in *Moscow Univ. Math. Bull.* **41** (1986), no. 1, 52 – 54.