(1) On the number of join irreducibles and acyclicity in finite modular lattices. Algebra Universalis 64 (2010), no. 3-4, 433–444.

As observed by Fred Wehrung, the definition of 'cycles' does not give the right concept in the case $n = 3$: Here, one has to required that one has 3 distinct intersection points for the 3 lines.

(2) H., Semenova, Marina. Generators of existence varieties of regular rings and complemented Arguesian lattices. Cent. Eur. J. Math. 8 (2010), no. 5, 827–839.

(3) On the equational theory of projection lattices of finite von Neumann factors. J. Symbolic Logic 75 (2010), no. 3, 1102–1110.

(4) Generators for complemented modular lattices and the von Neumann-Jónsson coordinatization theorems. Algebra Universalis 63 (2010), no. 1, 45–64.

(5) Complemented modular lattices with involution and orthogonal geometry. Algebra Universalis 61 (2009), no. 3–4, 339–364.

(6) On perfect pairs for quadruples in complemented modular lattices and concepts of perfect elements. Algebra Universalis 61 (2009), no. 1, 1–29.

(7) On the equational theory of the projection lattices of finite von Neumann algebra factors. Note di matematica e fisica (Cerfim Locarno), **22** (2009), 53–65

(8) H.; Roddy, Michaele S.; A second note on the equational theory of modular ortholattices. Algebra Universalis 57 (2007), no. 3, 371–373.

(9) H.; Nurakunov, Anvar, On locally finite modular lattice varieties of finite height. Order 24 (2007), no. 1, 31–37.

(10) H.; Semenova, Marina, Existence varieties of regular rings and complemented modular lattices. J. Algebra 314 (2007), no. 1, 235–251.

In case of rings without unit, 'artinian' should read 'artinian and neotherian'

(11) H.; Micol, Florence; Roddy, Michael S., On nn-distributive modular ortholattices. Algebra Universalis 53 (2005), no. 2-3, 143–147.

(12) H.; Takách, Géza, A characterization of subgroup lattices of finite abelian groups. Beiträge Algebra Geom. 46 (2005), no. 1, 215-239.

This paper attempts a characterization of lattices that can be represented as the lattice of submodules of a finitely generated module over a completely primary uniserial ring (which would include the subgroup lattices of finite abelian groups). The result as stated in the paper is not correct. Indeed, the authors have subsequently noted that a counter-example is provided by G. S. Monk [Pacific J. Math. 30 (1969), 175–186. Monk's example is a primary Arguesian lattice of geometric dimension 2 that cannot be represented as the lattice of submodules of a module over a completely primary uniserial ring. Reviewed by James B. Nation

The problem is the 'obvious' Lemma 1.1. and its application in Sect.9. The results of Sect. 2– 8 do not depend on Lemma 1.1 or only on valid special cases. In the paper there are also combinatorial results on semiprimary lattices and their skeletons. Here, references should be give to G. P. Tesler. Semi-primary lattices and tableau algorithms.
PhD thesis MIT 1995. http://mat.ucsd.edu/ gptesler and Regonati, F.; Sarti, S. D. Enumeration of chains in semi-primary lattices. Ann. Comb. 4 (2000), no. 1, 109–124.

(13) H., mit R.Langsdorf, Frankl's Conjecture for lower semimodular lattices.

Cf. Reinhold, Jürgen (2000). Frankl's conjecture is true for lower semimodular lattices. Graphs Combin. 16 (1): 115–116.

(14) On the size of Boolean combinations of subgroups of finite abelian groups. Order 17 (2000), no. 4, 387–390 (2001).

(15) Arguesian lattice. C. Herrmann (originator), Encyclopedia of Mathematics.URL: http://www.encyclopediaofmath.org/index.php?title=Arguesian_lattice&oldid=13684

(16) H.; Roddy, Michael S., A note on the equational theory of modular ortholattices. Algebra Universalis 44 (2000), no. 1-2, 165–168.

In this note is has been conjectured that every variety of modular ortholattices is generated by its finite dimensionsional members. This would imply a conjecture of Gunter Bruns that any variety of modular ortholattices is either 2-distributive of contains a simple 3-dimensional member: Bruns, Gnter Varieties of modular ortholattices. Houston J. Math. 9 (1983), no. 1, 1–7.

For none of these conjectures there have been supplied any good reasons. Rather, one should conjecture that any variety of modular ortholattices is either n-distributive for some n or contains a subvariety not containing any simple 3-dimensional members.

(17) H.; Luksch, Peter; Skorsky, Martin; Wille, Rudolf, Algebras of semiconcepts and double Boolean algebras. Contributions

to general algebra, 13 (Velké Karlovice, 1999/Dresden, 2000), 175–188, Heyn, Klagenfurt, 2001.

The decision problem for the equational theory is PSPACE-complete according to Philippe Balbiani: http://cie2011.fmi.uni-sofia.bg/files/slides/Balbiani.pdf

(18) H,; Roddy M: Proatomic modular ortholattices: Representation and equational theory, Note di matematica e fisica (Cerfim Locarno), 10 (1999), 55-88

(19) H., Moresi, Remo; Schuppli, Reto; Wild, Marcel; Classification of subspaces. pp.55–170 in: Orthogonal Geometry in Infinite Dimensional Vector Spaces, H.A. Kellwer et al eds.; Bayreuther math. Schriften, **53** (1998)

(20) On automorphism groups of Arguesian lattices. Acta Math. Hungar. 79 (1998), no. 1–2, 35–38.

(21) H.; Wild, Marcel, A polynomial algorithm for testing congruence modularity. Internat. J. Algebra Comput. 6 (1996), no. 4, 379–387.

(22) On the undecidability of implications between embedded multivalued database dependencies. Inform. and Comput. 122 (1995), no. 2, 221–235.

Thanks are due to Luc Segufin, who obeserved that Theorem 16 is not in the quoted reference (and most likely not in any other) and that the given proof was vacuous. A correct proof has been given in

Corrigendum to: "On the undecidability of implications between embedded multivalued database dependencies" Inform. and Comput. 204 (2006), no. 12, 1847–1851.

(23) Alan Day's work on modular and Arguesian lattices. Algebra Universalis 34 (1995), no. 1, 35–60.

(24) Day, Alan; H.; Jónsson, Bjarni; Nation, J. B.; Pickering, Doug; Small non-Arguesian lattices. Algebra Universalis 31 (1994), no. 1, 66–94.

(25) On forbidden minors for matroids representable in finite characteristic

(26) H.; Pickering, Douglas; Roddy, Michael, A geometric description of modular lattices. Algebra Universalis 31 (1994), no. 3, 365–396.

In the definition of 'base of lines' on p.380 it should read 'Λ_M-compatible' where Λ_M is the set of all lines of M.

As observed by Fred Wehrung, the definition of 'cycles' does not give the right concept in the case $n = 3$: Here, one has to required that one has 3 distinct intersection points for the 3 lines. He also observed that, contrary to the claim on top of page 367, for general geometries, the join irreducibles of the subspace lattice may result into to a non-isomorphic geometry. An elaborate presentation of all material in the paper is being prepared by Fred Wehrung.

(27) Galois lattices, Note di matematica e fisisca (Cerfim Locarno), **7** 229–234, (1992)

(28) On the contraction of vectorial lattice representations. Order 8 (1991), no. 3, 275–281.

The proof of Lemma 4 breaks down at the first step of the induction. A couterexample to Thm.1 is provided in the below erratum. The problem open in all its variations.

Erratum: "On the contraction of vectorial lattice representations" Order 22 (2005), no. 1, 83–84. Summary: "An isometric sublattice on a six-dimensional vector space lattice is constructed having a congruence relation such that the factor lattice does not admit any representation via contraction."

The conjecture has been shown to fail for the class of submodule lattices over certain rings, see

Czédli, Gábor; Hutchinson, George An irregular Horn sentence in submodule lattices. Acta Sci. Math. (Szeged) 51 (1987), no. 1-2, 35–38.

(29) H.; Wild, Marcel, Acyclic modular lattices and their representations. J. Algebra 136 (1991), no. 1, 17–36.

The proof of Thm.6.4 left out some details which are now provided in: On the number of join irreducibles and acyclicity in finite modular lattices. Algebra Universalis 64 (2010), no. 3-4, 433–444.

Also, as observed by Fred Wehrung, the definition of 'cycles' does not give the right concept in the case $n = 3$: Here, one has to required that one has 3 distinct intersection points for the 3 lines.

(30) Day, Alan; H., Gluings of modular lattices. Order 5 (1988), no. 1, 85–101.

Thanks are due to Tamás Schmidt for observing that Lemma 2.1 is erroneous. A more detailed consideration provides a correct proof of Lemma 3.3; see

Corrigendum: "Gluings of modular lattices" Order 23 (2006), no. 2-3, 169–171.

(31) Frames of permuting equivalences. Acta Sci. Math. (Szeged) 51 (1987), no. 1–2, 93–101.

(32) Gross, Herbert; Herrmann, Christian; Moresi, Remo, The classification of subspaces in Hermitian vector spaces. J. Algebra 105 (1987), no. 2, 516–541.

(33) On the arithmetic of projective coordinate systems. Trans. Amer. Math. Soc. 284 (1984), no. 2, 759–785.
(34) On elementary Arguesian lattices with four generators. Algebra Universalis 18 (1984), no. 2, 225–259.
(35) Rahmen und erzeugende Quadrupel in modularen Verbänden. (German) [Frames and generating quadruples in modular lattices] Algebra Universalis 14 (1982), no. 3, 357–387.

Hilfssatz 6.4 is not correct. It has been replaced in the following by a reasoning closer to the structure to be considered.

On perfect pairs for quadruples in complemented modular lattices and concepts of perfect elements. Algebra Universalis 61 (2009), no. 1, 1–29.
(36) On the word problem for the modular lattice with four free generators. Math. Ann. 265 (1983), no. 4, 513–527.
(37) On varieties of algebras having complemented modular lattices of congruences. Algebra Universalis 16 (1983), no. 1, 129–130.
(38) Über die von vier Moduln erzeugte Dualgruppe. (German) [On the dual group generated by four modules] Abh. Braunschweig. Wiss. Ges. 33 (1982), 157–159.
(39) Hagemann, Joachim; H., Arithmetical locally equational classes and representation of partial functions. Universal algebra (Esztergom, 1977), pp. 345–360, Colloq. Math. Soc. Jnos Bolyai, 29, North-Holland, Amsterdam-New York, 1982.
(40) Rahmen und erzeugende Quadrupel in modularen Verbnden. (German) [Frames and generating quadruples in modular lattices] Algebra Universalis 14 (1982), no. 3, 357–387.
(41) H; Jensen, Christian U.; Lenzing, Helmut, Applications of model theory to representations of finite-dimensional algebras. Math. Z. 178 (1981), no. 1, 83–98.
(42) Faigle, Ulrich; H, Projective geometry on partially ordered sets. Trans. Amer. Math. Soc. 266 (1981), no. 1, 319–332.
(43) Freese, Ralph; H; Huhn, Andrs P., On some identities valid in modular congruence varieties. Algebra Universalis 12 (1981), no. 3, 322–334.
(44) A parameter for subdirectly irreducible modular lattices with four generators. Acta Sci. Math. (Szeged) 43 (1981), no. 1-2, 169–179.
(45) A finitely generated modular ortholattice. Canad. Math. Bull. 24 (1981), no. 2, 241–243.

As pointed out by Günter Bruns, the ultraproduct construction has not the required properties. It remains open, whether pure injective hulls would work, here. A valid construction within Hilbert space has been given in: Bruns, Günter; Roddy, Michael, A finitely generated modular ortholattice. Canad. Math. Bull. 35 (1992), no. 1, 29–33.

(46) A characterization of distributivity for modular polarity lattices. Contributions to lattice theory (Szeged, 1980), 473–490, Colloq. Math. Soc. Jnos Bolyai, 33, North-Holland, Amsterdam-New York, 1983.

(47) Gumm, H.-Peter; H., Algebras in modular varieties: Baer refinements, cancellation and isotopy. Houston J. Math. 5 (1979), no. 4, 503–523.

(48) On a condition sufficient for the distributivity of lattices of linear subspaces. Arch. Math. (Basel) 33 (1979/80), no. 3, 235–238.

(49) Hagemann, Joachim; H,, A concrete ideal multiplication for algebraic systems and its relation to congruence distributivity. Arch. Math. (Basel) 32 (1979), no. 3, 234–245.

(50) Affine algebras in congruence modular varieties. Acta Sci. Math. (Szeged) 41 (1979), no. 1-2, 119–125.

(51) On quadruples of normal subgroups. Proceedings of the Lattice Theory Conference (Ulm, 1975), pp. 92–99. Univ. Ulm, Ulm, 1975.

The subdirect decomposition claimed in the paper is not valid: E.g. the subgroup lattice of $\mathbb{Z} \times (\mathbb{Z}/(p^2))^3$ yields a counterexample with 4 generators choosen similarly as in the following (without any strange glueing): On the word problem for the modular lattice with four free generators. Math. Ann. 265 (1983), no. 4, 513–527.

For subdirect decomposition results in a much smaller class of lattices see: On elementary Arguesian lattices with four generators. Algebra Universalis 18 (1984), no. 2, 225–259.

(52) H.; Huhn, A. P. Lattices of normal subgroups which are generated by frames. Lattice theory (Proc. Colloq., Szeged, 1974), pp. 97–136. Colloq. Math. Soc. Janos Bolyai, Vol. 14, North-Holland, Amsterdam, 1976.

In von Neumann frames, the perspectivities between base elements should be given by elements denoted in the form $(\ldots 0, x, 0, \ldots, 0, -x, 0, \ldots)$; equivalently, one may consider only the prespecivities between the first base element and the others given by $(x, 0, \ldots, 0, -x, 0, \ldots)$ and obtain the remaining ones by the normalization condition of von Neumann; cf. Frames of permuting equivalences. Acta Sci. Math. (Szeged) 51 (1987), no. 1–2, 93–101.

(53) Doyen, J.; H., Projective lines and n-distributivity. Lattice theory (Proc. Colloq., Szeged, 1974), pp. 45–50. Colloq. Math. Soc. Janos Bolyai, Vol. 14, North-Holland, Amsterdam, 1976.
(54) On modular lattices generated by two complemented pairs. Houston J. Math. 2 (1976), no. 4, 513–523.
(55) H.; Huhn, Andrs Zum Wortproblem fr freie Untermodulverbände. Arch. Math. (Basel) 26 (1975), no. 5, 449–453.
(56) H.; Kindermann, Margarete; Wille, Rudolf On modular lattices generated by $1 + 2 + 2$. Algebra Universalis 5 (1975), no. 2, 243–251.
(57) H.; Huhn, Andrs P. Zum Begriff der Charakteristik modularer Verbände. (German) Math. Z. 144 (1975), no. 3, 185–194.
(58) Concerning M. M. Gluhov's paper on the word problem for free modular lattices (Sibirsk, Mat. . 5 (1964), 1027–1043). Algebra Universalis 5 (1975), no. 3, 447.
(59) Partial Fano planes cannot be finitely axiomatized. (English) Proc. Conf. algebr. Aspects Comb., Semin. Toronto 1975, 241–242 (1975).
(60) H.; Poguntke, Werner The class of sublattices of normal subgroup lattices is not elementary. Algebra Universalis 4 (1974), 280–286.
(61) Modulare Verbände von Lnge $n \leq 6$. (German) Proceedings of the University of Houston Lattice Theory Conference (Houston, Tex., 1973), pp. 119–146. Dept. Math., Univ. Houston, Houston, Tex., 1973.
(62) On the equational theory of submodule lattices. Proceedings of the University of Houston Lattice Theory Conference (Houston, Tex., 1973), pp. 105–118. Dept. Math., Univ. Houston, Houston, Tex., 1973.

The last sentence of Theorem 9 is incorrect. Also, Ralph Freese has shown, contrary to the claim in Thm.5, that the lattice of subspaces of an nn-dimensional vector space over GF(p) is a projective modular lattice if p is a prime and $n \geq 4$:

Freese, Ralph, Projective geometries as projective modular lattices. Trans. Amer. Math. Soc. 251 (1979), 329–342.
(63) Weak projective radius and finite equational bases for classes of lattices, Algebra Universalis 3(1973), 51-58
(64) S-verklebte Summen von Verbänden. (German) Math. Z. 130 (1973), 255–274.
(65) Quasiplanare Verbände. (German) Arch. Math. (Basel) 24 (1973), 240–246.
(66) A.Day, H., and R.Wille, On modular lattices with four generators, Algebra Universalis 2(1972), 317-323