

PUBLICATIONS ON PLANAR SEMIMODULAR LATTICES

The list¹ below² consists of those publications that

- deal with slim semimodular or planar semimodular lattices, or
- generalize, use, or enumerate slim semimodular lattices.

The list only contains papers that

have appeared or

have been recently uploaded to www.arXiv.org;

these papers have permanent coordinates.

- 1▶ Adaricheva, K., Czédli, G.: Note on the description of join-distributive lattices by permutations. *Algebra Universalis* **72**, 155–162 (2014)
- 2▶ Czédli, G.: The matrix of a slim semimodular lattice, *Order* 29 (2012) 85–103
- 3▶ Czédli, G.: Representing homomorphisms of distributive lattices as restrictions of congruences of rectangular lattices, *Algebra Universalis* 67, 313–345 (2012)
- 4▶ Czédli, G.: Finite convex geometries of circles. *Discrete Mathematics* **330**, 61–75 (2014)
- 5▶ Czédli, G.: Coordinatization of finite join-distributive lattices. *Algebra Universalis* **71**, 385–404 (2014)
- 6▶ Czédli, G.: Patch extensions and trajectory colorings of slim rectangular lattices, *Algebra Universalis* **72**, 125–154 (2014)
- 7▶ Czédli, G.: A note on congruence lattices of slim semimodular lattices, *Algebra Universalis*, **72**, 225–230 (2014)
- 8▶ Czédli, G.: Quasiplanar diagrams and slim semimodular lattices. *Order* **33**, 239–262 (2016)
- 9▶ Czédli, G.: The asymptotic number of planar, slim, semimodular lattice diagrams, *Order* **33**, 231–237 (2016)
- 10▶ Czédli, G.: Diagrams and rectangular extensions of planar semimodular lattices. *Algebra Universalis* **77**, 443–498 (2017)
- 11▶ Czédli, G.: Lamps in slim rectangular planar semimodular lattices; *Acta Sci. Math. (Szeged)* 87 (2021), 381–413. DOI [10.14232/actasm-021-865-y](https://doi.org/10.14232/actasm-021-865-y), [arXiv:2101.02929](https://arxiv.org/abs/2101.02929)
- 12▶ Czédli, G.: Cyclic congruences of slim semimodular lattices and non-finite axiomatizability of some finite structures. *Archivum Mathematicum Brno* **58** (2022) 15–33. DOI [10.5817/AM2022-1-15](https://doi.org/10.5817/AM2022-1-15); [arXiv:2102.00526](https://arxiv.org/abs/2102.00526)
- 13▶ Czédli, G.: A property of meets in slim semimodular lattices and its application to retracts. *Acta Sci. Math.* **88**, 595–610 (2022) DOI [10.1007/s44146-022-00040-z](https://doi.org/10.1007/s44146-022-00040-z); [arXiv:2112.07594](https://arxiv.org/abs/2112.07594)
- 14▶ Czédli, G.: Infinitely many new properties of the congruence lattices of slim semimodular lattices. *Acta Sci. Math. (Szeged)*, DOI [10.1007/s44146-023-00069-8](https://doi.org/10.1007/s44146-023-00069-8); earlier version [arXiv:2206.14769](https://arxiv.org/abs/2206.14769)
- 15▶ Czédli, G.: Revisiting Faigle geometries from a perspective of semimodular lattices. [arXiv:2107.10202](https://arxiv.org/abs/2107.10202)
- 16▶ Czédli, G.: Slim patch lattices as absolute retracts and maximal lattices. [arXiv:2105.12868](https://arxiv.org/abs/2105.12868)
- 17▶ Czédli, G.: \mathcal{C}_1 -diagrams of slim rectangular semimodular lattices permit quotient diagrams. [arXiv:2208.03606](https://arxiv.org/abs/2208.03606)
- 18▶ Czédli, G.: Reducing the lengths of slim planar semimodular lattices without changing their congruence lattices. [arXiv:2301.00401](https://arxiv.org/abs/2301.00401)

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¹Edited by Gábor Czédli. Some preprints and, sometimes in before publication cases, the most recent versions are available from [his website](https://www.gaborcedli.com). For papers that have already appeared in journals, the [arXiv](https://arxiv.org)-versions are not always indicated.

²Derived from `list-planar-semimodular.tex`

- 19▶ Czédli, G., Dékány, T., Gyenizse, G., Kulin, J.: The number of slim rectangular lattices. *Algebra Universalis* **75**, 33–50 (2016)
- 20▶ Czédli, G., Dékány, T., Ozsvárt, L., Szakács, N., Udvari, B.: On the number of slim, semimodular lattices, *Mathematica Slovaca*, **66**, 5–18 (2016)
- 21▶ Czédli, G., Grätzer, G.: Planar semimodular lattices: structure and diagrams. Chapter 3 in: Grätzer, G., Wehrung, F. (eds.), *Lattice Theory: Special Topics and Applications*, pp 91–130, Birkhäuser, Basel (2014)
- 22▶ Czédli, G., Grätzer, G.: Notes on planar semimodular lattices. VII. Resections of planar semimodular lattices. *Order* **30**, 847–858 (2013)
- 23▶ Czédli, G., Grätzer, G.: A new property of congruence lattices of slim, planar, semimodular lattices. *Categories and General Algebraic Structures with Applications*, accepted for publication. *Categories and General Algebraic Structures with Applications* **16**, 1–28, 2022. [download from the journal here](#) (or use [this more direct link](#)); [arXiv:2103.04458](#)
- 24▶ Czédli, G., Grätzer, G., Lakser, H.: Congruence structure of planar semimodular lattices: the general swing lemma. *Algebra Universalis* **79**:40, 18 pp (2018)
- 25▶ Czédli, G., Kurusa, Á.: A convex combinatorial property of compact sets in the plane and its roots in lattice theory. *Categories and General Algebraic Structures with Applications* **11**, 57–92 (2019). [download from the journal here](#) (or use [this more direct link](#))
- 26▶ Czédli, G., Makay, G.: Swing lattice game and a direct proof of the swing lemma for planar semimodular lattices. *Acta Sci. Math. (Szeged)* **83**, 13–29 (2017)
- 27▶ Czédli, G., Molkhasi, A.: Absolute retracts for finite distributive lattices and slim semimodular lattices. *Order*, DOI [10.1007/s11083-021-09592-1](#); [arXiv: 2105.10604](#)
- 28▶ Czédli, G., Ozsvárt, L., Udvari, B.: :How many ways can two composition series intersect? *Discrete Mathematics* **312**, 3523–3536 (2012)
- 29▶ Czédli, G., Schmidt, E.T.: Some results on semimodular lattices, *Contributions to General Algebra 19. Proceedings of the Olomouc Conference 2010 (AAA 79+ CYA 25)* , Verlag Johannes Hein, Klagenfurt 2010, 45-56. ISBN 978-3-7084-0407-3
- 30▶ Czédli, G., Schmidt, E.T.: The Jordan-Hölder theorem with uniqueness for groups and semimodular lattices. *Algebra Universalis* **66**, 69–79 (2011)
- 31▶ Czédli, G., Schmidt, E.T.: Composition series in groups and the structure of slim semimodular lattices, *Acta Sci Math. (Szeged)* **79** (2013), 369–390.
- 32▶ Czédli, G., Schmidt, E.T.: Slim semimodular lattices. I. A visual approach. *Order* **29**, 481–497 (2012)
- 33▶ Czédli, G., Schmidt, E.T.: Slim semimodular lattices. II. A description by patchwork systems. *Order* **30**, 689–721 (2013)
- 34▶ Dékány, T., Gyenizse, G., Kulin, J.: Permutations assigned to slim rectangular lattices. *Acta Sci. Math. (Szeged)* **82**, 19–28 (2016)
- 35▶ Grätzer, G.: Planar semimodular lattices: congruences. in: Grätzer, G., Wehrung, F. (eds.), *Lattice Theory: Special Topics and Applications*. Vol. 1, Chapter 4, pp 131–165, Birkhäuser, Basel (2014)
- 36▶ Grätzer, G.: On a result of Gábor Czédli concerning congruence lattices of planar semimodular lattices. *Acta Sci. Math. (Szeged)* **81**, 25–32 (2015)
- 37▶ Grätzer, G.: Notes on planar semimodular lattices. VI. On the structure theorem of planar semimodular lattices. *Algebra Universalis* **69**, 301–304 (2013)
- 38▶ Grätzer, G.: Congruences in slim, planar, semimodular lattices: The Swing Lemma. *Acta Sci. Math. (Szeged)* **81**, 381–397 (2015)
- 39▶ Grätzer, G.: Congruences of fork extensions of slim, planar, semimodular lattices. *Algebra Universalis* **76**, 139–154 (2016)
- 40▶ Grätzer, G.: Congruences and trajectories in planar semimodular lattices. *Discuss. Math. Gen. Algebra Appl.* **38**, 131–142 (2018)
- 41▶ Grätzer, G.: Notes on planar semimodular lattices. VIII. Congruence lattices of SPS lattices. *Algebra Universalis* **81**:15 (I.e., No. 2, Paper No. 15; 3 pp) (2020)
- 42▶ Grätzer, G.: Applying the Czédli-Schmidt sequences to congruence properties of planar semimodular lattices. *Discuss. Math. Gen. Algebra Appl.* **41**, 153–169 (2021); [download from Sciendo](#) or try at DOI [10.7151/dmgaa.1359](#)
- 43▶ Grätzer, G.: Notes on planar semimodular lattice. IX. C_1 -diagrams. *Discuss. Math. Gen. Algebra Appl.*, to appear. [arXiv:2104.02534](#)

- 44► Grätzer, G.: Using the swing lemma and \mathcal{C}_1 -diagrams for congruences of planar semimodular lattices³. *Discussiones Mathematicae General Algebra and Applications*, Available online: January 11, 2023, DOI [10.7151/dmgaa](https://doi.org/10.7151/dmgaa); earlier version [arXiv:2106.03241](https://arxiv.org/abs/2106.03241)
- 45► Grätzer, G.: On a property of congruence lattices of slim, planar, semimodular lattices. [arXiv:2205.10922](https://arxiv.org/abs/2205.10922)
- 46► Grätzer, G.: On slim rectangular lattices. *Acta Sci. Math.* DOI [10.1007/s44146-023-00058-x](https://doi.org/10.1007/s44146-023-00058-x), [arXiv:2205.10966](https://arxiv.org/abs/2205.10966)
- 47► Grätzer, G.: An open problem on congruences of finite lattices⁴. [arXiv:2303.00699](https://arxiv.org/abs/2303.00699)
- 48► Grätzer, G., Knapp, E.: Notes on planar semimodular lattices. I. Construction. *Acta Sci. Math. (Szeged)* **73**, 445–462 (2007)
- 49► Grätzer, G., Knapp, E.: A note on planar semimodular lattices. *Algebra Universalis* **58**, 497–499 (2008)
- 50► Grätzer, G., Knapp, E.: Notes on planar semimodular lattices. II. Congruences. *Acta Sci. Math. (Szeged)* **74**, 37–47 (2008)
- 51► Grätzer, G., Knapp, E.: Notes on planar semimodular lattices. III. Congruences of rectangular lattices. *Acta Sci. Math. (Szeged)*, **75**, 29–48 (2009)
- 52► Grätzer, G., Knapp, E.: Notes on planar semimodular lattices. IV. The size of a minimal congruence lattice representation with rectangular lattices. *Acta Sci. Math. (Szeged)* **76**, 3–26 (2010)
- 53► Grätzer, G., Lakser, H.: Homomorphisms of distributive lattices as restrictions of congruences. III. Rectangular lattices and two convex sublattices. [arXiv:2112.15248](https://arxiv.org/abs/2112.15248)
- 54► Grätzer, G., Schmidt, E. T.: An extension theorem for planar semimodular lattices. *Period. Math. Hungar.* **69**, 32–40 (2014)
- 55► Grätzer, G., Schmidt, E. T.: A short proof of the congruence representation theorem of rectangular lattices. *Algebra Universalis* **71**, 65–68 (2014)
- 56► Grätzer, G., Wares, T.: Notes on planar semimodular lattices. V. Cover-preserving embeddings of finite semimodular lattices into simple semimodular lattices. *Acta Sci. Math. (Szeged)* **76**, 27–33 (2010)

³Also under the title “Applying the swing lemma and \mathcal{C}_1 -diagrams to congruences of planar semimodular lattices”.

⁴Suffixed by “in pictures” in [arXiv:2303.00699v1](https://arxiv.org/abs/2303.00699v1).