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Topologies and convergence structures on vector lattices of operators

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Bibliography

[1] Y. Abramovich and G. Sirotkin. On order convergence of nets. *Positivity*, 9(3):287–292, 2005.

[2] Y.A. Abramovich and C.D. Aliprantis. *An invitation to operator theory*, volume 50 of *Graduate Studies in Mathematics*. American Mathematical Society, Providence, RI, 2002.

[3] E.A. Alekhno. The irreducibility in ordered Banach algebras. *Positivity*, 16(1):143–176, 2012.

[4] E.A. Alekhno. The order continuity in ordered algebras. *Positivity*, 21(2):539–574, 2017.

[5] C.D. Aliprantis and K.C. Border. *Infinite dimensional analysis. A hitchhiker's guide*. Springer, Berlin, third edition, 2006.

[6] C.D. Aliprantis and O. Burkinshaw. *Locally solid Riesz spaces with applications to economics*, volume 105 of *Mathematical Surveys and Monographs*. American Mathematical Society, Providence, RI, second edition, 2003.

[7] C.D. Aliprantis and O. Burkinshaw. *Positive operators*. Springer, Dordrecht, 2006. Reprint of the 1985 original.

[8] R. Beattie and H.-P. Butzmann. *Convergence structures and applications to functional analysis*. Kluwer Academic Publishers, Dordrecht, 2002.

[9] V.I. Bogachev. *Measure theory. Vol. II*. Springer-Verlag, Berlin, 2007.

[10] J.X. Chen and A.R. Schep. Two-sided multiplication operators on the space of regular operators. *Proc. Amer. Math. Soc.*, 144:2495–2501, 2016.

[11] J. Conradie. The coarsest Hausdorff Lebesgue topology. *Quaest. Math.*, 28(3):287–304, 2005.

[12] J.B. Conway. *A course in functional analysis*, volume 96 of *Graduate Texts in Mathematics*. Springer-Verlag, New York, second edition, 1990.

[13] Y.A. Dabboorasad, E.Y. Emelyanov, and M.A.A Marabeh. Order convergence in inifinite-dimensional vector lattices is not topological. Preprint, 2017. Online at https://arxiv.org/pdf/1705.09883.pdf.

[14] H.G. Dales and M. de Jeu. Lattice homomorphisms in harmonic analysis. In *Positivity and noncommutative analysis*, Trends Math., pages 79–129. Birkhäuser/Springer, Cham, 2019.

[15] M. de Jeu and M. Wortel. Compact groups of positive operators on Banach lattices. *Indag. Math. (N.S.)*, 25(2):186–205, 2014.

[16] B. de Pagter and W.J. Ricker. Bicommutants of algebras of multiplication operators. *Proc. London Math. Soc. (3)*, 72(2):458–480, 1996.

[17] B. de Pagter and W.J. Ricker. Algebras of multiplication operators in Banach function spaces. *Journal of Operator Theory*, 42(2):245–267, 1999.

[18] B. de Rijk. The order bicommutant. Master's thesis, Leiden University, Leiden, 2012. Online at https://www.universiteitleiden.nl/binaries/content/assets/science/mi/scripties/derijkmaster.pdf.

[19] Y. Deng and M. de Jeu. Convergence structures and locally solid topologies on vector lattices of operators. Chapter 3 of this thesis. Online at https://arxiv.org/pdf/2008.05379.pdf.

[20] Y. Deng and M. de Jeu. Vector lattices with a Hausdorff uo-Lebesgue topology. Chapter 2 of this thesis. Online at https://arxiv.org/pdf/2005.14636.pdf.

[21] Y. Deng, M. O'Brien, and V.G. Troitsky. Unbounded norm convergence in Banach lattices. *Positivity*, 21(3):963–974, 2017.

[22] R.M. Dudley. On sequential convergence. *Trans. Amer. Math. Soc.*, 112:483–507, 1964.

[23] G.B. Folland. *Real analysis. Modern techniques and their applications*. Pure and Applied Mathematics. John Wiley & Sons, Inc., New York, second edition, 1999.

[24] D.H. Fremlin. *Topological Riesz spaces and measure theory*. Cambridge University Press, London-New York, 1974.

[25] D.H. Fremlin. *Measure theory. Vol. 2. Broad foundations*. Torres Fremlin, Colchester, 2003. Corrected second printing of the 2001 original.

[26] N. Gao and D.H. Leung. Smallest order closed sublattices and option spanning. *Proc. Amer. Math. Soc.*, 146(2):705–716, 2018.

[27] N. Gao, D.H. Leung, and F. Xanthos. Duality for unbounded order convergence and applications. *Positivity*, 22(3):711–725, 2018.

[28] N. Gao, V.G. Troitsky, and F. Xanthos. Uo-convergence and its applications to Cesàro means in Banach lattices. *Israel J. Math.*, 220(2):649–689, 2017.

[29] N. Gao and F. Xanthos. Unbounded order convergence and application to martingales without probability. *J. Math. Anal. Appl.*, 415(2):931–947, 2014.

[30] W. Hackenbroch. Representation of vector lattices by spaces of real functions. In *Functional analysis: surveys and recent results (Proc. Conf., Paderborn, 1976)*, pages 51–72. North–Holland Math. Studies, Vol. 27; Notas de Mat., No. 63. North-Holland, Amsterdam, 1977.

[31] T. Husain. *Introduction to topological groups*. W.B. Saunders Co., Philadelphia, Pa.-London, 1966.

[32] M. Kandić, H. Li, and V.G. Troitsky. Unbounded norm topology beyond normed lattices. *Positivity*, 22(3):745–760, 2018.

[33] M. Kandić and M.A. Taylor. Metrizability of minimal and unbounded topologies. *J. Math. Anal. Appl.*, 466(1):144–159, 2018.

[34] W.A.J. Luxemburg and B. de Pagter. Maharam extensions of positive operators and f-modules. *Positivity*, 6(2):147–190, 2002.

[35] W.A.J. Luxemburg and B. de Pagter. Representations of positive projections. I. *Positivity*, 9(3):293–325, 2005.

[36] W.A.J. Luxemburg and A.C. Zaanen. *Riesz spaces. Vol. I*. North-Holland Publishing Co., Amsterdam-London, 1971.

[37] P. Meyer-Nieberg. *Banach lattices*. Universitext. Springer-Verlag, Berlin, 1991.

[38] E.T. Ordman. Convergence almost everywhere is not topological. *Amer. Math. Monthly*, 73(2):182–183, 1966.

[39] W. Rudin. *Functional analysis*. International Series in Pure and Applied Mathematics. McGraw-Hill, Inc., New York, second edition edition, 1991.

[40] H.H. Schaefer. *Banach lattices and positive operators*, volume 215 of *Die Grundlehren der mathematischen Wissenschaften*. Springer-Verlag, New York-Heidelberg, 1974.

[41] H.H. Schaefer, M. Wolff, and W. Arendt. On lattice isomorphisms with positive real spectrum and groups of positive operators. *Math. Z.*, 164(2):115–123, 1978.

[42] J. Synnatzschke. Über einige verbandstheoretische Eigenschaften der Multiplikation von Operatoren in Vektorverbänden. *Math. Nachr.*, 95:273–292, 1980.

[43] M.A. Taylor. Unbounded convergences in vector lattices. Master's thesis, University of Alberta, Edmonton, 2018.

[44] M.A. Taylor. Unbounded topologies and uo-convergence in locally solid vector lattices. *J. Math. Anal. Appl.*, 472(1):981–1000, 2019.

[45] V.G. Troitsky. Measures of non-compactness of operators on Banach lattices. *Positivity*, 8(2):165–178, 2004.

[46] J. von Neumann. Zur Algebra der Funktionaloperationen und Theorie der normalen Operatoren. *Math. Ann.*, 102(1):370–427, 1930.

[47] A.W. Wickstead. Representation and duality of multiplication operators on Archimedean Riesz spaces. *Compositio Math.*, 35(3):225–238, 1977.

[48] A.W. Wickstead. Ordered Banach algebras and multi-norms: some open problems. *Positivity*, 21:817–823, 2017.

[49] A.C. Zaanen. *Integration*. North-Holland Publishing Co., Amsterdam; Interscience Publishers John Wiley & Sons, Inc., New York, 1967. Completely revised edition of An introduction to the theory of integration.

[50] A.C. Zaanen. *Riesz spaces. II*, volume 30 of *North-Holland Mathematical Library*. North-Holland Publishing Co., Amsterdam, 1983.

[51] A.C. Zaanen. *Introduction to operator theory in Riesz spaces*. Springer-Verlag, Berlin, 1997.

[52] O. Zabeti. Unbounded absolute weak convergence in Banach lattices. *Positivity*, 22(2):501–505, 2018.