

Gary D. Faulkner
Associate Professor
B.S., M.S., Ph.D.

Educational Record

Georgia State University, 1966-1971, B.S. with honors, Mathematics (minor in Philosophy)

University of South Carolina, 1971-1973, M.S., Mathematics

Georgia Institute of Technology, 1973-1976, Ph.D., Mathematics (minor in Physics)

Ph.D. Students

E. Chandler, *Fixed Points of Non-Expansive Mappings and Abstract Measures of Non-Compactness*.

H. Mendelson, Jr., *Reductive Operators on a Separable Hilbert Space and the Invariant Subspace Conjecture*.

J. Guglielmi, *Compactifications with Singular Remainders*. (with R. E. Chandler).

F. Obersnel, *On Compactifications of the Set of Natural Numbers and the Half Line*. (with J.E. Vaughan)

Publications

1. *Metrization of symmetric spaces*, (with Peter W. Harley, III), Canadian Journal of Mathematics, 27(5) (1975), pp. 986-990.
2. *Representation of linear functionals in a Banach space*, Rocky Mountain Journal of Mathematics, 7(4) (1977).
3. *Orthogonal decomposition of isometries in a Banach space* (with J. E. Huneycutt, Jr.), Proceedings of the American Mathematical Society, 69(1) (1978), pp. 125-128.
4. *Cosine representations of Abelian $*$ -semigroups and generalized cosine operators functions*, Canadian Journal of Mathematics, XXX(3) (1978), pp. 474-482.

5. *Kernel dilation in reproducing kernel Hilbert spaces and its application to moment problems* (with R. W. Shonkwiler), Pacific Journal of Mathematics, 77(1) (1978), pp. 103-115.
6. *Convolution iterates of Banach algebra valued measures*, Revue Roum, 24(10) (1979), pp. 1437-1443.
7. *The canonical form of a scalar operator in a Banach space*, (with J. E. Huneycutt), Proc. Amer. Math. Soc., XXVI(3) (1978), pp. 247-248.
8. *On the nonexistence of weak solutions to abstract differential equations in nonreflexive spaces*, Nonlinear Analysis, Theory, Methods and Applications, 2(4) (1978), pp. 505:508.
9. *Operators on Banach spaces with complemented ranges*, (with S. L. Campbell) Acta Mathematica, 35(1-2) (1980), pp. 125-128.
10. *Isometries on L_p spaces and copies of l_p shifts*, (with M. L. Gardner and S. L. Campbell), Proceedings of the AMS, 77(2) (November 1979), pp. 198-200.
11. *Studies on unsaturated acyl-glycerolipid metabolism in developing soybean cotyledons*, Plant Physiology (with R. F. Wilson), 69 (1980), pp. 545-549.
12. *Isometries, projections and Wold decompositions*, (with S. L. Campbell and R. Sine), Operator Theory and Functional Analysis, Pitman Publishing LTD, 1979.
13. *A fixed point theorem for non-expansive, condensing mappings*, (with E. W. L. Chandler), Aust. Jour. Math., 29(Series A) (1980), pp. 393-398.
14. *Fixed points in a non-convex domain*, (with E. Chandler), Proc. Amer. Math. Soc., 80(4) (1980), pp. 625-638.
15. *Choloropromazine inhibition of butyrlchloinesterase from rabbit liver* (with R. S. Rush), Journal of Pharmacology, 216(311), pp. 586-591.
16. *Singular sets and remainders* (with R. E. Chandler and George L. Cain), Trans. Amer. Math. Soc., 268(1), November 1981.
17. *Generalizing the Alexandroff-Unysohn Double Circumference Construction* (with R.E. Chandler, et al.), Proc. Amer. Math. Soc., 83(3), November 1981.
18. *Dynamical systems: Countability and Stability*, (with J. Franke and L. Janos) Nonlinear Analysis, Theory, Methods and Applications, 6(7) (1982), pp. 687-694.

19. *Singular compactifications: The order structure*, (with R. E. Chandler) Proc. Amer. Math. Soc., 100(2) (1987), pp. 377-381.
20. *Compactifications whose remainders are retracts*, Proc. Amer. Math. Soc., 103(3) (1988), pp. 984-988.
21. *Minimal compactifications and their associated function spaces*, Proc. Amer. Math. Soc. 108 No.2 1990 pg 541-546.
22. *Construction of compactifications using essential semilattice homomorphisms*, with A. Caterino and M. C. Viperà (University of Perugia, Perugia, Italy) Proc. Amer. Math. Soc. **116** 3 1992 851-860.
23. *Applications of singular sets to the study of compactifications*, with A. Caterino and M. C. Viperà (University of Perugia, Perugia, Italy) Rend. dell'Inst. Mat. dell'Univ. di Trieste. [21] Fasc II 1989 (this is not the actual date of the article. It appeared in 1991) p 248-258.
24. *Remainders of Compactifications and their relation to a Quotient Lattice of the Topology* (with M. C. Viperà) PAMS V116 #9 Nov 1992 p 851-860.
25. *Compactifications from Mappings*, Sup. ai Rend. dell Cir. Mat. di Palermo. 29, 1992 p 161-178.
26. *Singular sets and compactifications: A sampler*, Proceedings of the Guilford College Sesquicentennial Topology Conference. 1988. {**not refreed**}.
27. *Complexity of compactifications of the natural numbers* with M. C. Viperà. submitted to Fund. Math.
28. *A class of compactification which are always singular* with A.V. Arhangel'skii, R. E. Chandler and M. C. Viperà, submitted to General topology and Applications.
29. *Sequential Extentions and Sequential Compactifications* with M.C. Viperà Questions and Answers in General Topology.
30. Hausdorff Compactifications: A retrospective, Handbook of the History of General Topology, Vol. 2, C.E. Aull and R. Lowen eds. (Kluwer) 1998.

Articles for Popular Publications

27. *The Painters Algorithm*, (with R. E. Chandler) PC Tech Journal, 3(11), November 1985.
29. *Sixteen-Color Graphics*, (with R. E. Chandler) PC Tech Journal, 4(8), August 1986.
30. *A Virtual Graphics Screen*, (with R. E. Chandler) PC Tech Journal
31. *8087 Array functions for Turbo Pascal*, (with R. E. Chandler), accepted by Turbotechnik.