REFERENCES

Acerbi, E. and Fusco, N. (1984). Semicontinuity problems in the calculus of variations. *Archive for Rational Mechanics and Analysis*, **62**, 371–387.

Adams, R. A. (1975). *Sobolev Spaces*. Academic Press, New York .

Alexandroff, P. and Hopf, H. (1935). *Topologie*. Springer, Berlin.

Amann, H. (1976). Fixed point equations and nonlinear eigenvalue problems in ordered Banach space. *SIAM Review*, **18**, 620–709.

Ambrosetti, A., Arcoya, D., and Buffoni, B. (1994). Positive solutions for some semi-positone problems via bifurcation theory. To appear.

Ambrosetti, A. and Hess, P. (1980). Positive solutions of asymptotically linear elliptic eigenvalue problems. *Journal of Mathematical Analysis and Applications*, **73**, 411–422.

Ball, J. M. (1978). Convexity conditions and existence theorems in nonlinear elasticity. *Archive for Rational Mechanics and Analysis*, **63**, 337–403.

Ball, J.M. (1981). Global invertibility of Sobolev functions and the interpenetration of the matter. *Proceedings of the Royal Society of Edinburgh*, **88A**, 315–328.

Ball, J.M. and Murat, F. (1984). $W^{1,p}$ quasiconvexity and variational problems for multiple integrals. *Journal of Functional Analysis*, **58**, 225–253.

Calderón, A. P. (1951). On the differentiability of absolutely continuous functions. *Rivista di Matematica, Universita di Parma*, **2**, 203–213.

Carathéodory, C. (1914). Über das lineare Mass von Punktmengen eine Verallgemeinerung des Längenbegriffs. *Nachrichten Gesellschaft der Wissenschaften zu Goettingen*, pp.404–426.

Castro, A., Garner, J. B., and Shivaji, R. (1993). Existence results for classes of sublinear semipositone problems. *Results in Mathematics*, **23**, 214–220.

Ciarlet, P.G. and Nečas, J. (1987). Injectivity and self contact in non linear elasticity. *Archive for Rational Mechanics and Analysis*, **97**, 171–188.

Dacorogna, B. (1987). *Direct Methods in the Calculus of Variations*. Vol. 78. Springer-Verlag, Berlin; New York.

Dacorogna, B. and Fonseca, I. (1992). A minimization problem involving variation of the domain. *Communications in Pure and Applied Mathematics*, **XLV**, 871–897.

Davini, C. (1986). A proposal for a continuum theory of defective crystals. *Archive for Rational Mechanics and Analysis*, **96**, 295–317.

Davini, C. and Parry, G. (1989). On the defect-preserving deformations in crystals. *International Journal of Plasticity*, **5**, 337–369.

Deimling, K. (1985). *Nonlinear Functional Analysis*. Springer-Verlag, Berlin; New York.

de Rham (1955). *Varietes Differentiables*. Herman et Cie, Paris.

Dold, A. (1972). *Lectures on Algebraic Topology*. Springer-Verlag, Berlin; New York.

Dugundji, J. (1951). An extension of Tietze's theorem. *Pacific Journal of Mathematics*, **1**, 353–367.

Eisenberg, M. (1974). *Topology*. Holt–Rinehart–Winston.

Ericksen, J.L. (1987). Twinning of crystals I, pp. 77–96. In *Metastability and Incompletely Posed Problems*. S. Antman *et al.*, eds., IMA Vol in Applied Mathematics, No. 3.

Evans, L. C. and Gariepy, R. F. (1992). *Measure Theory and Fine Properties of Sobolev Functions*. Studies in Advanced Mathematics, Boca Raton.

Federer, H. (1969). *Geometric Measure Theory*. Springer-Verlag, Berlin; Heidelberg; New York.

Fonseca, I. and Gangbo, W. (1995). Local invertibility of Sobolev functions. *SIAM Journal of Mathematics*, **26** (2), 280-304.

Fonseca, I. and Müller, S. (1992). Quasiconvex integrands and lower semicontinuity in L^1. *SIAM Journal of Mathematical Analysis*, **23**, 1081–1098.

Fonseca, I. and Parry, G. (1987). Equilibrium configurations of defective crystals. *Archive for Rational Mechanics and Analysis*, **97**, 189–223.

Gold'sthein, V. M. and Reshetnyak, Y. G. (1990). *Quasiconformal Mappings and Sobolev Spaces*. Kluwer Academic Publishers, Dordrecht; Boston.

Gold'sthein, V. M. and Vodopyanov, S. (1977). Quasiconformal mappings and spaces of functions with generalized first derivatives. *Siberian Mathematical Journal*, **17** (3), 515–531.

Guillemin, V. and Pollack, A. (1974). *Differential Topology*. Prentice-Hall, Englewood Cliffs.

Hausdorff, F. (1919). Dimension und äusseres Mass. *Mathematische Annalen*, **79**, 157–179.

Havin, V. and Maz'ya, V. (1972). Non linear potential theory. *Russian Mathematic Surveys*, **27**, 71–148.

Hayman, W. K. and Kennedy, P. B. (1976). *Subharmonic functions*. Vol. I. Academic Press, London; New York.

Heinonen, K. and Koskela, P. (1993). Sobolev mappings with integrable dilatations. *Archive for Rational Mechanics and Analysis*, **125**, 81–97.

Heinz, H. (1959). An elementary analytic theory of the degree of mappings in n-dimensinal spaces. *Journal of Mathematics and Mechanics*, **8**, 231–247.

Hess, P. and Kato, T. (1980). On some linear and nonlinear eigenvalue problems with an indefinite weight function. *Communications in Pure and Applied Mathematics*, **5**, 999–1030.

Hopf, H. (1926). Abbildungsklassen n-dimensinaler mannigfaltigkeiten. *Mathematische Annalen*, **96**, 209–224.

Kuratowsky, K. (1966). *Topology I*. Academic Press, London; New York.

Lebesgue, H. (1907). Sur le problème de Dirichlet. *Rendiconti Circolo Matematico di Palermo*, **27**, 371–402.

Lloyd, N. G. (1978). *Degree Theory*. Cambridge University Press.

Malý, J. (1993). Weak lower semicontinuity of polyconvex integrals. *Proceedings of the Royal Society of Edinburgh*, **123A**, 681–691.

Malý, J. (1994). The area formula for $W^{1,N}$ - mappings. *Comment. Math. Univ. Carolinae*, **35**, (2), 291–298.

Manfredi, J. (1994). Weakly monotone functions. *Journal of Geometric Analysis*, **4**, (2), 393–402.

Manfredi, J. and Villamor, E. Mappings with integrable dilatation in higher dimensions. To appear in the *Bulletin of the American Mathematical Society*.

Marcus, M. and Mizel, V. (1973). Transformations by functions in Sobolev spaces and lower semicontinuity for parametric variational problems. *Bulletin of the American Mathematic Society*, **79**, 790–795.

Martio, O. and Ziemer, W. P. (1992). Lusin's condition (N) and mappings with non-negative jacobian. *Michigan Mathematical Journal*, **39**, 495–508.

Meyers, N. (1970). A theory of capacities for potentials of functions in Lebesgue spaces. *Mathematica Scandinavica*, **26**, 255–292.

Morrey, C.B. (1966). *Multiple Integrals in the Calculus of Variations*. Springer-Verlag, Berlin; Heidelberg; New York.

Müller, S. (1990a). Higher integrability of determinants and weak convergence in L^1. *Journal fuer die Reine und Angewandte Mathematik*, **412**, 20–34.

Müller, S. (1990b). A remark on the distributional determinant. *Comptes Rendus de l'Académie des Sciences de Paris*, **311**, 13–17.

Müller, S., Tang, Q., and Yan, B.S. (1994) . On a new class of elastic deformations not allowing for cavitation. *Analyse Nonlineaire*, **11**, 217–243.

Nagumo, M. (1951). A theory of degree of mapping based on infinitesimal analysis. *American Journal of Mathematics*, **73**, 485–496.

Nirenberg, L. (1974). *Topics in Nonlinear Functional Analysis*. New York University.

Rabinowitz, P. H. (1971). Some global results for nonlinear eigenvalue problems. *Journal of Functional Analysis*, **7**, 487–513.

Rabinowitz, P. H. (1975). *Théorie du degré topologique et applications à des problèmes aux limites non linéaires*. Notes Univ. Paris VI et CNRS (written by H. Berestycki).

Rado, T. and Reichelderfer, P. V. (1955). *Continuous transformations in analysis with an introduction to algebraic topology*. Die Grundlehren der Math. Wissenschaften, Vol. 75, Springer-Verlag, Berlin.

Reshetnyak, J. G. (1969). On the concept of capacity in the theory of functions with generalized derivatives. *Sib. Mat. Zh.*, **10** (1969), 1109–1138 (Russian). English translation, (1969). Siberian Mathematical Journal, **10**, 818–842.

Reshetnyak, J. G. (1989). Spaces Mappings with Bounded Distortion. *Translations of Mathematical Monographs*, American Mathematical Society.

Rudin, W. (1966). *Real and Complex Analysis*, McGraw-Hill Book Company, New York.

Schwartz, J. T. (1969). *Nonlinear Functional Analysis*, Gordon and Breach, New York.

Smoller, J. and Wasserman, A. (1987). Existence of positive solutions for semilinear elliptic equations in general domains. *Archive for Rational Mechanics and Analysis*, **98**, 229–249.

Spivak, M. (1979). *A Comprehensive Introduction to Differential Geometry*, Vol. I. Publish or Perish Inc., Berkeley.

Stein, E. M. (1970). *Singular Integrals and Differentiability Properties of Functions*, Princeton University Press.

Švérak, V. (1988). Regularity properties of deformations with finite energy. *Archive for Rational Mechanics and Analysis*, **100**, 105–127.

Tang, Q. (1988). Almost-everywhere injectivity in nonlinear elasticity. *Proceedings of the Royal Society of Edinburgh*, **109**, 79–95.

Tartar, L. (1979). Compensated compactness and applications to partial differential equations. *Nonlinear Analysis and Mechanics*, Heriot-Watt Symposium, **IV**, R. Knops, ed., Res., Notes in Mathematics No. 39, pp. 136–212, Pitman, San Francisco.

Tartar, L. (1988). A short introduction to topological degree. Manuscript. Unpublished.

Varga, S. (1962). *Matrix Iterative Analysis*, (3rd edn). Prentice-Hall, Englewood Cliffs.

Ziemer, W. P. (1989). *Weakly Differentiable Functions*. Springer-Verlag, New York.