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References

[AM] S. Akbulut and J. D. McCarthy, *Casson's Invariant for Oriented Homology 3-Spheres: An Exposition*, Mathematical Notes No. 36, Princeton University Press, Princeton, 1990.

[Al] W. Alford, *Uncountably many different involutions of S^3*, Proc. Amer. Math. Soc. **17** (1966), 186-196.

[As] A. Assadi, *Concordance of group actions on spheres*, Group Actions on Manifolds (Conference Proceedings, University of Colorado, 1983), Contemp. Math. **36** (1985), pp. 299–310.

[Ba] A. Bak, *K-Theory of Forms*, Annals of Mathematics Studies No. 98, Princeton University Press, Princeton, 1981.

[BaMo] A. Bak and M. Morimoto, *Surgery, K-theory, and transformation groups*, Topology Hawaii (Conf. Proc., Honolulu, 1990), World Scientific Publishing, Singapore, 1992, pp. 13–25.

[Be] J. C. Becker, *A relation between equivariant and nonequivariant stable cohomotopy*, Math. Zeit. **199** (1988), 331–356.

[BG] J. C. Becker and D. H. Gottlieb, *Transfer maps for fibrations and duality*, Comp. Math. **33** (1976), 107–133.

[BeS] J. C. Becker and R. E. Schultz, *Equivariant function spaces and stable homotopy theory*, Comment. Math. Helv. **49** (1974), 1–34.

[Bi] R. H. Bing, *Inequivalent families of periodic homeomorphisms of E^3*, Ann. of Math. **80** (1964), 78–93.

[Bow] B. H. Bowditch, *Notes on Gromov's hyperbolicity criterion for path-metric spaces*, preprint, University of Warwick, 1989.

[Bre1] G. Bredon, *On homogeneous cohomology spheres*, Ann. of Math. **73** (1961), 556–565.

[Bre2] ———, *Equivariant Cohomology Theories*, Lecture Notes in Mathematics Vol. 34, Springer, Berlin-Heidelberg-New York, 1967.

[Bre3] ———, *Introduction to Compact Transformation Groups*, Pure and Applied Mathematics Vol. 46, Academic Press, New York, 1972.

[Brö] Th. Bröcker, *Singuläre Definition der äquivarianten Bredon-Homologie*, Manuscr. Math. **5** ((171), 91–102.

[Brw1] W. Browder, *Surgery and the theory of differentiable transformation groups*, Proceedings of the Conference on Transformation Groups (Tulane, 1967), Springer, Berlin-Heidelberg-New York, 1968, pp. 3–46.

[Brw2] ———, *Manifolds and homotopy theory*, Manifolds—Amsterdam 1970 (Proc. NUFFIC Summer School, Amsterdam, Neth., 1970), Lecture Notes in Mathematics Vol. 197, Springer, Berlin-Heidelberg-New York, 1971, pp. 17–35.

[Brw3] ———, *Surgery on Simply Connected Manifolds*, Ergeb. der Math. (2) Bd. 65, Springer, Berlin-Heidelberg-New York, 1972.

[Brw4] ———, *Isovariant homotopy equivalence*, Abstracts Amer. Math. Soc. **8** (1987), 237–238.

[BP] W. Browder and T. Petrie, *Diffeomorphisms of manifolds and semifree actions on homotopy spheres*, Bull. Amer. Math. Soc. **77** (1971), 160–163.

[BQ] W. Browder and F. Quinn, *A surgery theory for G-manifolds and stratified sets*, Manifolds–Tokyo, 1973, (Conf. Proc., Univ. of Tokyo, 1973), University of Tokyo Press, Tokyo, 1975, pp. 27–36.

[BKS] N. Buchdahl, S. Kwasik and R. Schultz, *One fixed point actions on low-dimensional spheres*, Invent. Math. **102** (1990), 633–662.

[CS1] S. Cappell and J. Shaneson, *Nonlindar similarity*, Ann. of Math. **113** (1981), 315–355.

[CS2] ———, *The topological rationality of linear representations*, I. H. E. S. Publ. Math. **56** (1982), 101–128.

[CS3] ———, *Nonlinear and linear similarity are equivalent below dimension* 6, to appear.

[CSSWW] S. Cappell, J. Shaneson, M. Steinberger, S. Weinberger, and J. West, *Topological classification of representations of cyclic* 2*-groups*, Bull. Amer. Math. Soc. (2) **22** (1990), 51–57.

[CSSW] S. Cappell, J. Shaneson, M. Steinberger, and J. West, *Nonlinear similarity begins in dimension* 6, Amer. J. Math. **111** (1989), 717–752.

[CW1] S. Cappell and S. Weinberger, *A geometrical interpretation of Siebenmann's periodicity phenomenon*, Geometry and Topology (Conf. Proc., Univ. of Georgia, 1985), Lecture Notes in Pure and Applied Math. Vol. 105, Marcel Dekker, New York, 1987, pp. 47–52.

[CW2] ———, *Replacement theorems in topology I*, preprint, 1990.

[Ca] G. Carlsson, *A survey of equivariant homotopy theory*, Topology **31** (1992), 1–27.

[CG] A. J. Casson and C. McA. Gordon, *On slice knots in dimension* 3, Proc. AMS Sympos. Pure Math. **32 Pt. 1** (1978), 39–53.

[Co] M. Cohen, *A course in Simple Homotopy Theory*, Graduate Texts in Math. Vol. 10, Springer, Berlin-Heidelberg-New York, 1973.

[CMY] E. H. Connell, D. Montgomery, and C. T. Yang, *Compact groups in* E^n, Ann. of Math. **80** (1964), 94–103; ; *correction*, same journal **81** (1965), 194.

[DtD] J. Davis and T. tom Dieck, *Some exotic dihedral actions on spheres*, Indiana Univ. Math. J. **37** (1988), 431–450.

[DW] J. Davis and S. Weinberger, *Obstructions to propagation and replacement*, preprint, 1990.

[Da] M. Davis, *Smooth G-manifolds as collections of fiber bundles*, Pac. J. Math. **77** (1978), 315–363.

[DJ] M. Davis and T. Januszkiewicz, *Hyperbolization of polyhedra*, J. Diff. Geom. **34** (1991), 347–388.

[DaMo] M. Davis and J. Morgan, *Finite group actions on homotopy* 3*-spheres*, The Smith Conjecture (Symposium, New York, 1979), Pure and Applied Mathematics Vol. 112, Academic Press, Orlando, Florida, 1984.

[Daw] M. Dawson, *Isovariant surgery for smooth G-manifolds*, Ph. D. Thesis, University of Chicago (in preparation).

[DMS] S. DeMichelis, *The fixed point set of a finite group action on a homology* 4*-sphere*, L'enseignement math. **35** (1989), 107–116.

[tD1] T. tom Dieck, *Transformation Groups and Representation Theory*, Lecture Notes in Mathematics Vol. 766, Springer, Berlin-Heidelberg-New York, 1979.

[tD2] ———, *Transformation Groups*, de Gruyter Studies in Mathematics Vol. 8, W. de Gruyter, Berlin and New York, 1987.

[tD3] ———, *Verschlingungssysteme in glatten Darstellungsformen*, Forum Math. **3** (1991), 419–436.

[DoK] S. K. Donaldson and P. B. Kronheimer, *The Geometry of Four-Manifolds*, Oxford Univ. Press, Oxford, U. K. and New York, 1990.

[Dov1] K. H. Dovermann, $\mathbb{Z}_2$ *surgery theory*, Michigan Math. J. **28** (1981), 267–287.

[Dov2] ———, *Almost isovariant normal maps*, Amer. J. Math. **111** (1989), 851–904.

[DP1] K. H. Dovermann and T. Petrie, *G-Surgery II*, Memoirs Amer. Math. Soc. **37** (1982), No. 260.

[DP2] ———, *An induction theorem for equivariant surgery (G-Surgery III)*, Amer. J. Math. **105** (1983), 1369–1403.

[DMP] K. H. Dovermann, M. Masuda and T. Petrie, *Fixed point free algebraic actions on varieties diffeomorphic to* $\mathbb{R}^n$, Topological Methods in Algebraic Transformation Groups, Progress in Math. Vol. 80, Birkhäuser Boston, Boston, 1989, pp. 49–80.

[DPS] K. H. Dovermann, T. Petrie, and R. Schultz, *Transformation groups and fixed point data*, Group Actions on Manifolds (Conference Proceedings, University of Colorado, 1983), Contemp. Math. **36** (1985), pp. 159–189.

[DR] K. H. Dovermann and M. Rothenberg, *Equivariant Surgery and Classification of Finite Group Actions on Manifolds*, Memoirs Amer. Math. Soc. **71** (1988), No. 379..

[DoS1] K. H. Dovermann and R. Schultz, *Surgery on involutions with middle dimensional fixed point set*, Pac. J. Math. **130** (1988), 275–297.

[DoS2] ———, *Equivariant Surgery Theories and their Periodicity Properties*, Lecture Notes in Mathematics Vol. 1443, Springer, Berlin-Heidelberg-New York *et al*, 1990.

[DF] E. Dror Farjoun, *Homotopy and homology of diagrams of spaces*, Algebraic Topology (Workshop Proceedings, Seattle, 1985), Lecture Notes in Mathematics Vol. 1286, Springer, Berlin-Heidelberg-New York *et al*, 1987, pp. 93–134.

[Dg] J. Dugundji, *Continuous mappings into nonsimple spaces*, Trans. Amer. Math. Soc. **86** (1957), 256–268.

[DuS] G. Dula and R. Schultz, *Diagram cohomology and isovariant homotopy theory*, preprint, Purdue University and Bar-Ilan University, 1991.

[DK] W. G. Dwyer and D. M. Kan, *An obstruction theory for diagrams of simplicial sets*, Proc. Akad. Wet. **A87** = Indag. Math. **16** (1984), 139–146.

[Ed] A. Edmonds, *Transformation groups and low-dimensional manifolds*, 341–368.

[Ei] S. Eilenberg, *Cohomology and continuous mappings*, Ann. Math. **41** (1940), 231–251.

[Fe] H. Federer, *A study of function spaces by spectral sequences*, Trans. Amer. Math. Soc. **82** (1956), 340–361.

[Fn] M. E. Feighn, *Actions of finite groups on homotopy* 3*-spheres*, Trans. Amer. Math. Soc. **284** (1984), 141–151.

[FS] R. Fintushel and R. Stern, $O(2)$*-actions on the* 5*-sphere*, Invent. Math. **87** (1987), 457–476.

[FQ] M. Freedman and F. Quinn, *Topology of* $4-$*Manifolds*, Princeton Math. Series, Vol 33, Princeton University Press, Princeton, 1990.

[GH] E. Ghys and P. de la Harpe, *Sur les groups hyperboliques d'après M. Gromov*, Progress in Mathematics Vol. 83, Birkhäuser, Zurich, 1990.

[Gi] C. Giffen, *The generalized Smith conjecture*, Amer. J. Math. **88** (1966), 187–198.

[Go] C. McA. Gordon, *On the higher dimensional Smith Conjecture*, Proc. London Math. Soc. (3) (1974), 98–110.

[Gr] M. Gromov, *Hyperbolic groups*, Essays in Group Theory, MSRI Publications Vol. 8, Springer, Berlin-Heidelberg-New York *et al*, 1988.

[Ha1] A. Haefliger, *Plongements de variétés dans le domain stable*, Séminaire Bourbaki 1962/63, Fasc. 1, No. 245, 15 pp. Secrétariat mathématique, Paris, 1964.

[Ha2] L.S. Harris, *Intersections and embeddings of polyhedra*, Topology **8** (1969), 1–26.

[Hi] M. W. Hirsch, *Differential Topology*, Graduate Texts in Mathematics Vol. 33, Springer, Berlin-Heidelberg-New York, 1976.

[Hs] W.-C. Hsiang, *A note on free differentiable actions of* S^1 *and* S^3 *on homotopy spheres*, Ann. of Math. **83** (1966), 266–272.

[HH] W.-C. Hsiang and W.-Y. Hsiang, *Some free differentiable actions of* S^1 *and* S^3 *on 11-spheres*, Quart. J. Math. Oxford (2) **15** (1964), 371–374.

[HP] W.-C. Hsiang and W. Pardon, *When are topologically equivalent orthogonal transformations linearly equivalent?*, Invent. Math. **68** (1982), 275–316.

[Hu] J. F. P. Hudson, *Piecewise Linear Topology*, W. A. Benjamin, New York, 1969.

[Il1] S. Illman, *Equivariant singular homology and cohomology*, Memoirs Amer. Math. Soc. **1** (1975), No. 156.

[Il2] ———, *Whitehead torsion and group actions*, Ann. Acad. Sci. Fenn. Ser. A I **588** (1974).

[Il3] ———, *Smooth equivariant triangulations of G-manifolds for G a finite group*, Math. Ann. 233 (1978), 199–220.

[Il4] ———, *Approximation of G-maps by maps in equivariant general position and embedding of G-complexes*, Trans. Amer. Math. Soc. **262** (1980), 113–157.

[Il5] ———, *Recognition of linear actions on spheres*, Trans. Amer. Math. Soc. **274** (1982), 445–478.

[JR] W. Jaco and J. H. Rubinstein, *PL equivariant surgery and invariant decomposition of* 3*-manifolds*, Adv. Math. **73** (1989), 149-191.

[JN] M. Jankins and W.D. Neumann, *Lectures on Seifert manifolds*, Brandeis Lecture Notes Series No. 2. Mathematics Department, Brandeis University, 1983.

[Jo] L. Jones, *The converse to the fixed point theorem of P. A. Smith II*, Indiana Univ. Math. J. **22** (1972), 309–325; ; *correction*, same journal **24** (1975), 1001–1003.

[KP] D. S. Kahn and S. B. Priddy, *The transfer and stable homotopy theory*, Math. Proc. Camb. Phil. Soc. **83** (1978), 103–111.

[Ka] K. Kawakubo, *Compact Lie group actions and fiber homotopy type*, J. Math. Soc. Japan **33** (1981), 196–321.

[KM] M. Kervaire and J. Milnor, *Groups of homotopy spheres*, Ann. of Math. **77** (1963), 514–537.

[KiSc] R. C. Kirby and M. G. Scharlemann, *Eight faces of the Poincaré* 3*-sphere*, Geometric Topology (Proc. 1977 Georgia Topology Conf.), Academic Press, New York, 1979, pp. 113–146.

[KiSb] R. C. Kirby and L. C. Siebenmann, *Foundational Essays on Topological Manifolds, Smoothings, and Triangulations*, Annals of Mathematics Studies Vol. 88, Princeton University Press, Princeton, 1977.

[Ko] C. Kosniowski, *Actions of Finite Abelian Groups*, Research Notes in Mathematics Vol. 18, Pitman, London and San Francisco, 1978.

[KL] S. Kwasik and K.B. Lee, *Locally linear actions on* 3*-manifolds*, Math. Proc. Cambridge Phil. Soc. **104** (1988), 253–260.

[KwS1] S. Kwasik and R. Schultz, *Topological circle actions on* 4*-manifolds*, preprint, Northwestern University and University of Oklahoma, 1986 (revised version in preparation).

[KwS2] ———, *Desuspension of group actions and the Ribbon Theorem*, Topology **27** (1988), 443–457.

[KwS3] ———, *Pseudofree group actions on* S^4, Amer. J. Math. **112** (1990), 47–70.

[KwS4] ———, *Topological pseudofree actions on spheres*, Math. Proc. Camb. Philos. Soc. **103** (1991), 433–450.

[KwS5] ———, *Finite restrictions of pseudofree circle actions on 4-manifolds*, Quart. J. Math. Oxford (2), (to appear) {See also Abstracts Amer. Math. Soc. **10** (1989), 244}.

[KwS6] ———, *Icosahedral group actions on* $\mathbb{R}^3$, Invent. Math. **108** (1992), 385–402.

[LMP] E. Laitinen, M. Morimoto, and K. Pawałowski, *Smooth actions of finite nonsolvable groups on spheres*, preprint, University of Helsinki, Okayama University, University of Poznań (UAM), and Universität Heidelberg, 1992.

[La] R. Lashof, *Obstructions to equivariance*, Algebraic Topology (Sympos. Proc., Aarhus, 1978), Lecture Notes in Mathematics Vol. 763, Springer, Berlin-Heidelberg-New York, 1979, pp. 476–503.

[LaR] R. Lashof and M. Rothenberg, *G-smoothing theory*, Proc. AMS Sympos. Pure Math. **32 Pt. 1** (1978), 211–266.

[LW] C. N. Lee and A. G. Wasserman, *On the groups* $JO(G)$, Memoirs Amer. Math. Soc. **2** (1975), No. 159.

[Lev] J. Levine, *A classification of differentiable knots*, Ann. of Math. **82** (1965), 15–50.

[LMS] L. G. Lewis, J. P. May, and M. Steinberger, *Equivariant Stable Homotopy Theory*, Lecture Notes in Mathematics Vol. 1213, Springer, Berlin-Heidelberg-New York-*et al*, 1986.

[Liv] C. Livingston, *Exotic dihedral actions on homology* 3*-spheres*, Topology and its Appl. **39** (1991), 153–158.

[Lö] P. Löffler, *Homotopielineare* $\mathbb{Z}_p$ *Operationen auf Sphären*, Topology **20** (1981), 291–312.

[LöMi] P. Löffler and R. J. Milgram, *The structure of deleted symmetric products*, Braids (Santa Cruz, Calif., 1986), Contemp. Math. **78** (1988), pp. 415–424.

[LdM] S. López de Medrano, *Involutions on Manifolds*, Ergeb. der Math. (2) Bd. 54, Springer, Berlin-Heidelberg-New York, 1971.

[LüMa] W. Lück and I. Madsen, *Equivariant L-theory I*, Math. Zeitschrift **203** (1990), 503–526.

[MR] I. Madsen and M. Rothenberg, *On the homotopy theory of equivariant automorphism groups*, Invent. Math. **94** (1988), 623–637.

[Ms] M. Masuda, *Equivariant inertia groups for involutions*, preprint, Osaka City University, 1989.

[MSc] M. Masuda and R. Schultz, *Equivariant inertia groups and rational invariants of nonfree actions*, in preparation.

[May] J. P. May, *Equivariant homotopy and cohomology theory*, Symposium on Algebraic Topology in Honor of J. Adem (Oaxtepec, Mexico, 1981), Contemp. Math. **12** (1981), pp. 209–217.

[MMT] J. P. May, J. McClure, and G. Triantafillou, *Equivariant localization*, Bull. London Math. Soc. **14** (1982), 223–230.

[McM] C. McMullen, *Riemann surfaces and the geometrization of* 3*-manifolds*, Bull. Amer. Math. Soc. (2) **27** (1992), 207–216.

[MeY1] W. H. Meeks and S. T. Yau, *The topology of three-dimensional manifolds and the embedding problems in minimal surface theory*, Ann. of Math. **112** (1980), 441–484.

[MeY2] ———, *The equivariant Dehn's Lemma and Loop Theorem*, Comment. Math. Helv. **56** (1981), 225–239.

[MP] A. Meyerhoff and T. Petrie, *Quasi equivalence of G-modules*, Topology **15** (1976), 69–75.

[Mln1] J. Milnor, *Lectures on the h-cobordism Theorem*, Princeton Mathematical Notes No. 1, Princeton University Press, Princeton, N. J., 1965.

[Mln2] ———, *Whitehead torsion*, Bull. Amer. Math. Soc. **72** (1966), 358–426.

[Mln3] ———, *Singular Points of Complex Surfaces*, Annals of Mathematics Studies Vol. 61, Princeton University Press, Princeton, N. J., 1968.

[MnY1] D. Montgomery and C.T. Yang, *Differentiable pseudofree circle actions on homotopy seven spheres*, Proceedings of the Second Conference on Compact Transformation Groups (Univ. of Massachusetts, Amherst, 1971) Part 1, Lecture Notes in Mathematics Vol. 298, Springer, Berlin-Heidelberg-New York, 1972, pp. 41-101.

[MnY2] ———, *On homotopy seven spheres that admit differentiable pseudofree circle actions*, Michigan Math. J. **20** (1973), 193–216.

[Mø] J. M. Møller, *On equivariant function spaces*, Pac. J. Math. **142** (1990), 103–119.

[Mto1] M. Morimoto, *Bak groups and equivariant surgery*, K-Theory **2** (1989), 456–483.

[Mto2] ———, *Most of the standard spheres have one fixed point actions of A_5*, Transformation Groups (Proceedings, Osaka, 1987), Lecture Notes in Mathematics Vol. 1375, Berlin-Heidelberg-New York *et al*, 1989, pp. 240–257.

[Mum] D. Mumford, *The topology of normal singularities of an algebraic surface and a criterion for simplicity*, Publ. Math. I. H. E. S. **9** (1961), 5–22.

[Mun] J. R. Munkres, *Elementary Differential Topology (Revised Edition)*, Annals of Mathematics Studies Vol. 54, Princeton University Press, Princeton, N. J., 1966.

[Ol] R. Oliver, *Fixed point sets of group actions on finite acyclic complexes*, Comment. Math. Helv. **50** (1975), 155–177.

[Or] P. Orlik, *Seifert Manifolds*, Lecture Notes in Mathematics Vol. 291, Springer, Berlin-Heidelberg-New York, 1972.

[Pa] R. S. Palais, *The classification of G-spaces*, Memoirs Amer. Math. Soc. **36** (1960).

[PeT] T. Petrie, *Pseudoequivalences of G-manifolds*, Proc. AMS Sympos. Pure Math **32 Pt. 1** (1978), 169–210.

[Pet2] ——, *One fixed point actions on spheres I–II*, Adv. Math. **46** (1982), 3–14, 15–70.

[PR] T. Petrie and J. Randall, *Transformation Groups on Manifolds*, Dekker Series in Pure and Applied Mathematics Vol. 82, Marcel Dekker, New York, 1984.

[Pnc] H. Poincaré, *Cinquième complément à l'analysis situs*, Rend. Circ. Mat. Palermo **18** (1904), 45–110; *see also*, Oeuvres de H. Poincaré, T. 6, Gauthier-Villars, Paris, 1953, pp. 435–498.

[Q1] F. Quinn, *Ends of maps II*, Invent. Math. **68** (1982), 353–424.

[Q2] ——, *Homotopically stratified sets*, J. Amer. Math. Soc. **1** (1987), 441–499.

[Ra] F. Raymond, *Classification of the actions of the circle on* 3*-manifolds*, Trans. Amer. Math. Soc. **131** (1968), 51–78.

[Ro] M. Rothenberg, *Torsion invariants and finite transformation groups*, Proc. AMS Sympos. Pure Math. **32 Pt. 1** (1978), 267–311.

[RS] M. Rothenberg and J. Sondow, *Nonlinear smooth representations of compact Lie groups*, Pac. J. Math. **84** (1980), 427–444.

[RT] M. Rothenberg and G. Triantafillou, *On the classification of G-manifolds up to finite ambiguity*, Com. Pure Appl. Math. **44** (1991), 761–788.

[RW] M. Rothenberg and S. Weinberger, *Group actions and equivariant Lipschitz analysis*, Bull. Amer. Math. Soc. (2) **17** (1987), 109–112.

[RSa] C. P. Rourke and B. J. Sanderson, *Introduction to Piecewise Linear Topology*, Ergeb. der Math. (2) Bd. 69, Springer, Berlin-Heidelberg-New York, 1972.

[Sc1] R. Schultz, *Homotopy decomposition of equivariant function spaces I*, Math. Zeit. **131** (1973), 49–75.

[Sc2] ——, *Homotopy decomposition of equivariant function spaces II*, Math. Zeit. **132** (1973), 69–90.

[Sc3] ——, *Homotopy sphere pairs admitting semifree differentiable actions*, Amer. J. Math. **96** (1974), 308–323.

[Sc4] ——, *Differentiable group actions on homotopy spheres I: Differential structure and the knot invariant*, Invent. Math. **31** (1975), 105–128.

[Sc5] ——, *Equivariant function spaces and equivariant stable homotopy theory*, Transformation Groups (Proceedings of the Newcastle-upon-Tyne Conference, 1976), London Math. Soc. Lecture Notes Vol. 26, Cambridge University Press, Cambridge (U.K.) and New York, 1976, pp. 169–189.

[Sc6] ——, *Outline of almost isovariant homotopy smoothing theory*, pre-preprint, Purdue University, 1976.

[Sc7] ——, *Spherelike G-manifolds with exotic equivariant tangent bundles*, Studies in Algebraic Topology, Adv. in Math. Supplementary Studies Vol. 5, Academic Press, New York, 1979, pp. 1–39.

[Sc8] ———, *Exotic spheres as stationary sets of homotopy sphere involutions*, Mich. Math. J. **28** (1981), 121–122.

[Sc9] ———, *Differentiable group actions on homotopy spheres II: Ultrasemifree actions*, Trans. Amer. Math. Soc. **268** (1981), 255–297.

[Sc10] ———, *Nonlinear analogs of linear group actions on spheres*, Bull. Amer. Math. Soc. (2) **11** (1984), 263–285.

[Sc11] ———, *Homotopy invariants and G-manifolds: A look at the past* 15 *years*, Proceedings of the A.M.S. Summer Research Conference on Group Actions (Boulder, Colorado, 1983), Contemp. Math. **36** (1985), pp. 17–83.

[Sc12] ———, *Problems submitted to the A. M. S. Summer Research Conference on Group Actions (University of Colorado, Boulder, June 1983)*, Proceedings of the A.M.S. Summer Research Conference on Group Actions (Boulder, Colorado, 1983), Contemp. Math. **36** (1985), pp. 513–568.

[Sc13] ———, *Isovariant homotopy and classification of G-manifolds*, Abstracts Amer. Math. Soc. **8** (1987), 236.

[Sc14] ———, *Pontryagin numbers and periodic diffeomorphisms of spheres,*, Transformation Groups (Proceedings, Osaka, 1987), Lecture Notes in Mathematics Vol. 1375, Springer, Berlin-Heidelberg-New York *et al*, 1989, pp. 307–318.

[Sc15] ———, *A splitting theorem for manifolds with involution and two applications*, J. London Math. Soc. (2) **39** (1989), 183–192.

[Sc16] ———, *Isovariant homotopy theory and equivariant smoothings of linear spheres*, preprint, Purdue University, 1991.

[Se] G. Segal, *Equivariant stable homotopy theory*, Actes, Congrès Internat. de Math. (Nice, 1970), T. 2, Gauthier-Villars, Paris, 1971, pp. 59–63.

[Si1] L. Siebenmann, *Disruption of low-dimensional handlebody theory by Rochlin's Theorem*, Topology of Manifolds (Proc. Univ. of Georgia Conf., 1969), Markham, Chicago, 1970, pp. 57–76.

[Si2] ———, *Deformations of homeomorphisms of stratified sets*, Comment. Math. Helv. **47** (1972), 123–163.

[Sp] E. H. Spanier, *Algebraic Topology*, McGraw-Hill, New York, 1967.

[StnE] E. V. Stein, *Surgery on products with finite fundamental groups*, Topology **16** (1977), 473–493.

[StnS] S. H. Straus, *Equivariant codimension one surgery*, Ph. D. Dissertation, University of California, Berkeley, 1972.

[Su] D. Sullivan, *Infinitesimal computations in topology*, I. H. E. S. Publ. Math. **47** (1977), 269–331.

[ThW] W. Thurston, *The geometry and topology of* 3*-manifolds*, mimeographed notes, Princeton University, 1978–1979.

[Th2] ———, *Three dimensional manifolds, Kleinian groups, and hyperbolic geometry*, Bull. Amer. Math. Soc. (2) (1982), 357–381.

[Th3] ———, *Three-manifolds with symmetry*, preprint, 1982.

[Th4] ———, *Hyperbolic structures on* 3*-manifolds I: Deformation of acylindrical manifolds*, Ann. of Math. **124** (1986), 203–246.

[Wl] C. T. C. Wall, *Surgery on Compact Manifolds*, London Math. Soc. Monographs No. 1, Academic Press, New York, 1970.

[Wa] A. G. Wasserman, *Equivariant differential topology*, Topology **8** (1969), 127–150.

[Wb1] S. Weinberger, *The topological classification of stratified spaces*, preprint, University of Chicago, 1989 ⋯ (to appear in book form).

[Wb2] ———, *Fake G-tori*, preprint, University of Chicago, 1991.

[WY] S. Weinberger and M. Yan, *Exotic products and geometric periodicity for group actions*, in preparation.

[Wh1] G. W. Whitehead, *Elements of Homotopy Theory*, Graduate Texts in Mathematics Vol. 46, Springer, Berlin-Heidelberg-New York, 1978.

[Wh2] ———, *Fifty years of homotopy theory*, Bull. Amer. Math. Soc. (2) **8** (1983), 1–29.

[Ya] M. Yan, *Periodicity in equivariant surgery and applications*, Ph. D. Thesis, University of Chicago, 1990 (revised version to appear in Comm. Pure Appl. Math.).