

Curriculum Vitae (Dan Burghelea)

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1. Education (degrees):

- University Degree in Mathematics - University of Bucharest, 1965.
- Ph.D. in Mathematics- Mathematical Institute of the Romanian Academy, 1968.
- Doctor Docent in Sciences - University of Bucharest, 1972.

2. Honorary degree:

- Doctor Honoris Causa - University of Timisoara - Romania (1996)

3. Prizes:

- Prize S.Stoilow of the Romanian Academy, 1967.

4. Distinctions:

- Knight of the order : *Faithful Service* rank (Commander) given by the Romanian government in 2003.
- Honorary member of the Mathematical Institute of the Romanian Academy, 2005
- Distinction *Academic Merit* - Romanian Academy of Sciences, 2009

5. Positions held:

- The Ohio State University, Professor emeritus 2015-present.
- The Ohio State University, Professor 1979-2015.
- National Inst. for Sci. and Tech. Creation, Senior Researcher, 1977-1979.
- Institute for Atomic Physics (Bucharest), Senior Researcher, 1975-1977.
- Mathematical Institute of the Romanian Academy, Junior Researcher (1966-68), Researcher (1968-70), Senior Researcher (1970-75).

6. Visiting Positions held:

- Inst. for Advanced Study (1969, short term ¹ 1978),

¹appointments between 2 and 5 months

- Rutgers University, (1978-79),
- University of Geneva, (short term 1970),
- University of Bonn, (one semester 1972),
- University of Chicago (one quarter 1974, 1979),
- University of Paris (1974, short term ²1991),
- ETH, Zurich (one semester 1985, 1986, 1992-3),
- IHES, Bures sur Yvette, 1987 (short term 1986, 1996, 2005, 2011),
- ESI for Math. Phys. Vienna (short term 1993, 1995, 2000, 2003),
- Max Plank Institute, Bonn, Germany (short term 1986, 1996, 2005, 2013, 2015),
- Euler Institute , Lausanne (short term 2013),
- IMAR Bucharest, (short term 2005, 2016),

6. Memberships:

AMS, French Math. Society, Romanian Math. Society.

7. Ph.D.-students and their dissertations:

- John Oprea, Contributions to rational homotopy theory.
- Shoba Char, Contribution to the study of continuous functors.
- Doobon Lee, Contributions to rational homotopy theory of S^1 -spaces.
- P. Manoharan, A study of Fréchet manifolds.
- Hua Chen, The localization theorems of S^3 -equivariant cohomologies.
- Hon Kit Wai, Witten deformation in the presence of S^1 symmetry.
- Yoonweon Lee, Determinants of elliptic operators.
- John Marsick, Analytic torsion and closed one forms.
- Imre Major, On equivariant Morse Theory (G-manifolds, prestratifications, conic stratification).
- Bogdan Bucichovski, Contributions to the complex powers and the zeta function of elliptic pseudodifferential operators on orbifolds.
- Dong Du, Contributions to persistence theory.

²appointments between 2 and 5 months

8. Editorial Boards:

- . Studii si cercetari matematice, Academia R. S. Romania, 1972-1979.
- . Revue Roumaine des Mathematiques pures et appliquees, Academie de R. S. Roumanie, 1972-1979.
- . Annalele Univ. din Timisoara 1994-.
- . Bulletin de la Societe Roumaine de mathematiques, 2004-.
- . Tbilisi Mathematical Journal, 2007-.
- . Journal of Advanced Research in Differential Equations , 2008-.
- . Chinese Journal of Mathematics, 2013-.

9. Organizer/member of scientific committee:

- Topology Conference , Bucharest, 1968
- Co-director program in Global Analysis, Banach Institute, Warszawa, 1977
- Oberwolfach- Conference in Algebraic K-Theory of Topological spaces, 1987
- Special AMS session on Cyclic homology, University Park, Pen., 1989
- Miniprogram on Algebraic K-theory , Cyclic Homology and Automorphisms of Manifolds Schrödinger Institute, Vienna, 1994
- OSU Geometry Topology Conferences, since 1989 (every year till 2002)
- Conference on L2-methods in geometry, Sarasota Fl., Jan. 2001
- Special AMS session on L2-methods in Topology, Columbus OH, Sept, 2001
- Conference on C^* algebras and ellipticity, Banach Center, Bedlewo -Poland, 2004, 2006, 2008, 2009
- Conference on Algebras of operators and Topology, Moscow State University, 2005 and 2007
- Conference, Topology old and new (in memory of M.Postnikov), Banach Center Bedlewo-Poland, 2007
- Conference on Experimental and Theoretical methods in Algebra, Geometry and Topology, Romania, Constanza, June 21-24 2013

10. Publications

Part I of this document (Selected works) lists the most relevant papers of D. Burghelea by topics; the number corresponds to the complete list made by the year of publication.

Part II of this document lists all publications (printed or posted)

PART I (selected works)

1) Stable (simplicial) homotopy theory, Rational homotopy theory:

17. (with A. Deleanu), The homotopy category of spectra, I, Illinois J. Math., 11, 1967, 454–473.
20. (with A. Deleanu), The homotopy category of spectra, II, Math. Ann., 178, 1968, 131–144.
24. (with A. Deleanu), The homotopy category of spectra, III, Math. Z., 108, 1969, 154–170.
21. Some properties of homotopy classes of maps of Kan spectra, Invent. Math. 5, 1968, 1–7.
61. A localization theorem for functional S^1 -spaces, Math. Ann., 282 (1988), no. 3, 513–527.

2) Infinite dimensional topology (Hilbert manifolds):

25. (with N. Kuiper), Hilbert manifolds, Ann. of Math., 90, 1969, 379–417.
27. Diffeomorphisms for Hilbert manifolds and handle decomposition, Bull. Amer. Math. Soc., 76, 1970, 352–357.
28. (with D. Henderson), Smoothing and homeomorphisms for Hilbert manifolds, Bull. Amer. Math. Soc., 76, 1970, 1261–1265.
26. Embedding Hilbert manifolds with given normal bundle, Math. Ann. 187 1970, 207–219.
33. Differentiable knots in Hilbert space and a conjecture of R. D. Anderson, Rev. Roumaine Math. Pures Appl., 17, 1972, 341–352.
83. (with N.Saldanha and C.Tomei and) Results on infinite dimensional topology and applications to the structure of the critical set of Nonlinear Sturm-Liouville Operators, Journal of Diff. Equations, Academic Press, 188, (2003) 569–590.
90. (w. N Saldanha and C.Tomei) The geometry of the critical set of nonlinear periodic Sturm- Liouville operators , Journal of Diff. Equations, Academic Press, 246, (2009), no. 8, 3380–3399.

3) Complex analytic geometry:

32. (with A.Duma), Complex analytic structures on Hilbert manifolds, J. of Differential Geometry, Tom 5, 1971, 371-385.
36. (with A. Verona), Local homological properties of analytic sets, Manuscripta Math., 7, 1972, 55–66.

4) Automorphisms of manifolds (diffeomorphisms, homeomorphisms):

34. (with P. Antonelli and P. Kahn), The non-finite homotopy type of some diffeomorphism groups, Topology, 11, 1972, 1–49.
41. The structure of block-automorphisms of $M \times S^1$, Topology, 16, 1977, no. 1, 65–78.

1.(Book) (with P. Antonelli and P. Kahn), The concordance-homotopy groups of geometric automorphism groups, Lecture Notes in Mathematics, Vol. 215, Springer-Verlag, Berlin-New York, 1971.

38. (with R. Lashof), The homotopy type of the space of diffeomorphisms. I, Trans. Amer. Math. Soc., 196, 1974, 1–36.

39. (with R. Lashof), The homotopy type of the space of diffeomorphisms. II, Trans. Amer. Math. Soc., 196, 1974, 37–50.

42. (with R. Lashof), Stability of concordances and the suspension homomorphism, Ann. of Math, 105, 1977, no. 3, 449–472.

43. On the decomposition of the automorphisms-group of $M \times S^1$, Rev. Roumaine Math. Pures Appl., 22, 1977, no. 1, 17–30.

3.(Book) (with R. Lashof and M. Rothenberg), Groups of automorphisms of manifolds, Lecture Notes in Mathematics, Vol. 473, Springer-Verlag, Berlin-New York, 1975.

46. The rational homotopy groups of $\text{Diff}(M)$ and $\text{Homeo}(M^n)$ in the stability range. Algebraic topology, Aarhus 1978, Lecture Notes in Math., 763, Springer-Verlag, Berlin-New York, 1979. pp. 604–626.

48. (with R. Lashof), Geometric transfer and the homotopy type of the automorphism groups of a manifold, Trans. Amer. Math. Soc., 269, 1982, no. 1, 1–38.

56. (with Z. Friedorowicz) Hermitian algebraic K -theory of simplicial rings and topological spaces. J. Math. Pures Appl. (9) 64 (1985), no. 2, 175–235.

5) Algebraic K-theory of spaces, cyclic homology, free loop spaces:

45. Some rational computations of the Waldhausen algebraic K -theory, Comment. Math. Helv., 54, 1979, no. 2, 185–198.

56. (with Z. Friedorowicz), Hermitian algebraic K -theory of simplicial rings and topological spaces, J. Math. Pures Appl., 64, 1985, no. 2, 175–235.

57. Cyclic homology and the algebraic K -theory of spaces. I, Applications of algebraic K -theory to algebraic geometry and number theory, (Boulder, Colo., 1983), Contemp. Math., 55, Amer. Math. Soc., Providence, R.I., 1986, 89–115.

58. (with Z. Friedorowicz), Cyclic homology and algebraic K -theory of spaces. II, Topology, 25, 1986, no. 3, 303–317.

55. (with M. Vigue Poirrier), A model for cyclic homology and algebraic K -theory of 1-connected topological spaces, J. Differential Geom., 22, 1985, no. 2, 243–253.

60. (with M. Vique Poirner), Cyclic homology of commutative algebras, Algebraic topology—rational homotopy (Louvain-la-Neuve, 1986), 51–72, Lecture Notes in Math., 1318, Springer, Berlin-New York, 1988.

63. The free loop space. I (algebraic topology), Algebraic topology (Evanston, IL, 1988), Contemp. Math., 96, Amer. Math. Soc., Providence, RI, 1989, 59–85.

65. (with Z. Fiedorowicz and W. Gajda), Adams operations in Hochschild and cyclic homology of de Rham algebra and free loop spaces, K -Theory, 4, 1991, no. 3, 269–287. Erratum: "Adams operations in Hochschild and cyclic

homology of de Rham algebra and free loop space", *K-Theory*, 5, (1991), no. 3, 293.

73. Free loop spaces, power maps and K -theory, Algebraic K -theory (Poznań, 1995), 35–58, *Contemp. Math.*, 199, Amer. Math. Soc., Providence, RI, 1996.

54. The cyclic homology of the group rings, *Comment. Math. Helv.*, 60, 1985, no. 3, 354–365.

59. with C. Ogle), The Kunneth formula in cyclic homology, *Math. Z.*, 193, 1986, no. 4, 527–536.

92. Cyclic theory for commutative differential graded algebras and S-cohomology. *Quanta of maths*, Clay Math. Proc., 11, Amer. Math. Soc., Providence, RI, 2010, pp 85–105.

6) Differentiable transformation groups:

35. Free differentiable S^1 and S^3 actions on homotopy spheres, *Ann. Sci. Ecole Norm. Sup.*, 45, 1972, 183–215.

40. (with R. Schultz), On the semisimple degree of symmetry, *Bull. Soc. Math. France*, 103, 1975, no. 4, 433–440.

47. (with A. Assadi), Examples of asymmetric differentiable manifolds, *Math. Ann.*, 255, 1981, no. 3, 423–430.

50. (with A. Assadi), Symmetry of manifolds and their lower homotopy groups, *Bull. Soc. Math. France*, 111, 1983, no. 2, 97–108.

61. A localization theorem for functional S^1 -spaces, *Math. Ann.*, 282 (1988), no. 3, 513–527.

7) Elliptic operators / Regularized determinants and applications:

64. (with L. Friedlander and T. Kappeler), On the determinant of elliptic differential and finite difference operators in vector bundles over S^1 , *Comm. Math. Phys.*, 138, 1991, no. 1, 1–18.

67. (with L. Friedlander and T. Kappeler), Regularized determinants for pseudo differential operators in vector bundles over S^1 , *Integral Equations Operator Theory*, 16, 1993, no. 4, 496–513.

70. (with L. Friedlander and T. Kappeler), On the determinant of elliptic boundary value problems on a line segment, *Proc. Amer. Math. Soc.* 123 (1995), no. 10, 3027–3038.

66. (with L. Friedlander and T. Kappeler), Meyer-Vietoris type formula for determinants of elliptic differential operators, *J. Funct. Anal.* 107, 1992, no. 1, 34–65.

68. (with L. Friedlander and T. Kappeler and P.McDonald), On the functional logdet and related flows on the space of closed embedded curves on S^2 , *J. Funct. Anal.*, 120, 1994, no. 2, 440–466.

8) Spectral geometry and torsion:

71. (with L. Friedlander and T. Kappeler), Asymptotic expansion of the Witten deformation of the analytic torsion, *J. Funct. Anal.*, 137, 1996, no. 2,

320–363.

72. (with L. Friedlander and T. Kappeler and P. McDonald), Analytic and Reidemeister torsion for representations in finite type Hilbert modules, *Geom. And Funct. Anal.*, 6, 1996, 751–859.

79. (with L. Friedlander and T. Kappeler), Torsion for manifold with boundary and glueing formulas, *Math. Nachr.*, 208, 1999, 31-91.

77. Removing Metric anomalies from Ray Singer torsion, *Letters in Mathematical Physics* 47, 1999, 149-158.

81. (with L. Friedlander and T. Kappeler), Relative torsion, *Communications in Contemporary Mathematics*, 3, 2001 No.1, 15-85

82. (with S Haller) On the topology and analysis of a closed one form. I, (Novikov theory revisited) *Monographie d L'Enseignement Mathematique* 38 (2001) 133-175

85. (with Stefan Haller) Euler structures, the variety of representations and the Milnor-Turaev torsion , *Geom. Topol.* 10 pp. 1185-1238

86. (with Stefan Haller) A Riemmanian invariabt, Euler structures and some topological applications. (in Proc. of the conference on C^* -algebras and Elliptic Theory) , *Trends in Mathematics*, 2006, 37-60, Birkhauser-Verlag, Basel.

87. (with Stefan Haller) Complex valued Ray-Singer torsion, *Journal of Functional Analysis*, 248, 2007, pp. 27-78

88. (with Stefan Haller) Dynamics, Laplace transform and spectral geometry, *Journal of Topology, LMS*, vol 1, 2008, 115-151

89. (with Stefan Haller) Torsion, as a function on the space of representations in C^* -algebras and Elliptic Theory II , *Trends in Mathematics*, Birkhauser-Verlag, Basel (Ed D. Burghelea, R Melrose, A. Mischenko, E Troytski.) pp 41-66

91. (with Stefan Haller) Complex valued Ray-Singer torsion II. *Math. Nachr.* 283 (2010), no. 10, 13721402.

9) Nonlinear problems and dynamics

83. (with N. Saldahna and C. Tomei) Results on infinite dimensional topology and applications to the structure of the critical set of Nonlinear Sturm-Liouville Operators. *J. Differential Equations* 188 (2003) 569-590

84. (with N. Saldahna and C. Tomei) The topology of the monodromy map of the second order ODE : *J. Differential Equations* 227, 581-597 (2006).

90. (with N. Saldahna and C. Tomei) The geometry of the critical set of nonlinear periodic Sturm- Liouville operators , *J. Differential Equations* 246 (2009), no. 8, 3380–3399.

93. (with L. Friedlander, Th Kappeler) On the Space of Trajectories of a gradient like Vector Field, *Analele Universitatii de Vest din Timisoara, seria matematica -informatica*, vol. XLVIII, Fasc.1, 2, (2010) pp 45-126.

94. Dynamics, Spectral Geometry and Topology, In ALEXANDRU MYLLER MATHEMATICAL SEMINAR CENTENNIAL CONFERENCE, June 21-26, 2010 Iași, Romania, American Institute for Physics(AIP) Conference Proceedings Volume 1329, pp. 35-48.

95. Smooth structure on the moduli space of instantons of generic vector field, (to appear in) Exploratory Workshop on "Differential Geometry and its Applications" Iasi (Romania), September 2-4, 2009, Cluj University Press, 37-59, arXiv:1004.2084.

10) Computational topology

96. Topology or real angle valued maps and Graph representations in Advances i Mathematics (Invited contributions to the seventh Congress of Rmannian mathematicians, Brasov 2011) The publishing house of the Romanian Akademy, 103 -119.

97.(w. Tamal Dey, Topological Persistence for Circle Valued maps , Discrete and Computational Geometry, 2013 Vol 50, pp 69-98.

98. Refinement of Novikov–Betti numbers and of Novikov homology provided by an angle valued map, (Fundamentalnaya i prikladnaya matematika) 2016 (to appear december issue) arXiv

99. New invariants for a real valued and angle valued maps (an alternative to Morse-Novikov theory), Rev. Roumaine Math.Pures Appl. 62(2017), 1, 63-82

100. A refinement of Betti numbers and homology in the presence of a continuous function I, Algebraic and Geometric Topology 17 (2017) 2051–2080

101. (with Stefan Haller) Topology of angle valued maps, bar codes and Jordan blocks (with Stefan Haller), J Appl. and Comput. Topology (2017) Vol 1, issue 1. 121-197.

Book 6. New Topological Invariants for Real- and Angle-valued maps; (An alternative to Morse-Novikov theory), World Scientific Publishing Co. Pte. Ltd, August 2017

PART II (Complete list of Publications by years)

1962

1. On the compactification of topological spaces (in Rumanian) Com. Acad. R. P. Romane, 12, (1962), 667–670.

1963

2. (with N. Popescu), On the singular homology of CW-complexes (in (Romanian) Acad. R. P. Romane Stud. Cerc. Mat. 14, (1963), 115–134.

3. On the exact sequences associated with maps. (in romanian) Acad. R. P. Romane Stud. Cerc. Mat., 14, (1963), 661–667.

4. Au süjet d'un théorème relatif aux espaces d'Eilenberg-MacLane. (in French) Rev. Math. Pures Appl. (Bucharest) 8, (1963), 493–496.

5. Sur les applications q -triviales. (in French) Bull. Acad. Polon. Sci. Sér. Sci. Math. Astronom. Phys., 11, (1963), 727–730.

1964

6. Sur les applications qui induisent des isomorphismes des groupes de Whitehead. (in French) C. R. Acad. Sci. Paris, 259,(1964), 1928–1931.

1965

7. (with A. Deleanu) The spectral sequence of Shih Weishu and the generalized cohomology theories. II. Bull. Math. Soc. Sci. Math. R. S. Roumanie, 9, (1965), 167–176

1966

8. Principal fiber spaces and Postnikov systems. (in romanian) Stud. Cerc., Mat. 18, (1966), 585–630.

9. (with A. Deleanu) On certain two-space homology-cohomology groups. Rev. Roumaine Math. Pures Appl., 11, (1966) 703–712.

10. (with A. Deleanu) The spectral sequence of Shih Weishu and the generalized cohomology theories. I. Rev. Roumaine Math. Pures Appl., 11, (1966) 559–571.

11. Sur les groupes de Whitehead. (in French) Bull. Acad. Polon. Sci. Sér. Sci. Math. Astronom. Phys., 14, (1966), 305–307.

12. (with A. Deleanu) La catégorie homotopique des spectres I. (in French) C. R. Acad. Sci. Paris Sér. A-B 262, (1966), A859–A861.

13. (with A. Deleanu) La catégorie homotopique des spectres II. (in French) C. R. Acad. Sci. Paris Sér. A-B, 262 (1966), A901–A903.

14. (with A. Deleanu) La catégorie homotopique des spectres III. (in French) C. R. Acad. Sci. Paris Sér. A-B, 262, (1966), A946–A947.

15. (with A. Deleanu) Une suite spectrale et l’homomorphisme de Hurewicz pour les spectres semi-simpliciaux. (in French) C. R. Acad. Sci. Paris Sér. A-B, 262 (1966), A1393–A1395.

16. (with A. Deleanu) Résolutions de Cartan-Serre et de Postnikov dans la catégorie homotopique des spectres. (in French) C. R. Acad. Sci. Paris Sér. A-B, 263 (1966), A361–A364.

1967

17. (with A. Deleanu) The homotopy category of spectra. I. Illinois J. Math., 11, (1967), 454–473.

1968

18. Note sur les applications qui induisent pour l’homotopie l’homomorphisme ”zéro”. (in French) Rev. Roumaine Math. Pures Appl., 13, (1968), 151–157.

19. Sur le nombre des composantes connexes des groupes de difféomorphismes. (French) C. R. Acad. Sci. Paris Sér. A-B, 266, (1968), A196–A198.

20. (with A. Deleanu) The homotopy category of spectra. II. Math. Ann., 178, (1968), 131–144.

21. Some properties of homotopy classes of maps of Kan spectra. Invent. Math., 5, (1968), 1–7.

22. H-cobordism for Hilbert Manifolds, preprint E.T.H., Zürich, 1968.

23. Some Applications of Browder-Levine Theorem, preprint E.T.H., Zürich, 1968.

1969

24. (with A. Deleanu) The homotopy category of spectra. III. *Math. Z.*, 108 (1969), 154–170.

25. (with N. Kuiper) Hilbert manifolds. *Ann. of Math.*, 90, (1969), 379–417.

1970

26. Embedding Hilbert manifolds with given normal bundle. *Math. Ann.*, 187, (1970), 207–219.

27. Diffeomorphisms for Hilbert manifolds and handle decomposition. *Bull. Amer. Math. Soc.*, 76, (1970), 352–357.

28. (with D. Henderson) Smoothing and homeomorphisms for Hilbert manifolds. *Bull. Amer. Math. Soc.*, 76, (1970), 1261–1265.

29. (with P. Antonelli and P. Kahn) Gromoll groups, $\text{Diff}S^n$ and bilinear constructions of exotic spheres. *Bull. Amer. Math. Soc.*, 76, (1970), 772–777.

30. (with P. Antonelli and P. Kahn) The non finite type of some Diff_0M^n . *Bull. Amer. Math. Soc.*, 76, (1970), 1246–1250.

1971

31. (with P. Antonelli and P. Kahn) Concordance-homotopy groups and the non infinite type of some Diff_0M^n . *Bull. Amer. Math. Soc.*, 77, (1971), 719–724.

32. (with A. Duma) Structures analytiques complexes sur les variétés hilbertiennes. (French) 1971 *Espaces Analytiques (Séminaire, Bucharest, 1969)* pp. 145–148, Editura Acad. R.S.R., Bucharest

32. (with A. Duma) Complex analytic structures on Hilbert manifolds, *J. Diff. Geom.*, Vol 22, (1985), 243–53

1972

33. Differentiable knots in Hilbert space and a conjecture of R. D. Anderson. *Rev. Roumaine Math. Pures Appl.*, 17, (1972), 341–352.

34. (with P. Antonelli and P. Kahn) The non-finite homotopy type of some diffeomorphism groups. *Topology*, 11, (1972), 1–49.

35. Free differentiable S^1 and S^3 actions on homotopy spheres. *Ann. Sci. École Norm. Sup.*, 5, (1972), 183–215.

36. (with A. Verona) Local homological properties of analytic sets. *Manuscripta Math.*, 7, (1972), 55–66.

1973

37. On the homotopy type of $\text{diff}(M^n)$ and connected problems. *Colloque International sur l'Analyse et la Topologie Différentielle (Colloq. Internat. CNRS, No. 210, Strasbourg, 1972)*. *Ann. Inst. Fourier (Grenoble)*, 23, (1973), no. 2, 3–17.

1974

38. (with R. Lashof) The homotopy type of the space of diffeomorphisms. *I. Trans. Amer. Math. Soc.*, 196, (1974), 1–36

39. (with R. Lashof) The homotopy type of the space of diffeomorphisms. II. Trans. Amer. Math. Soc., 196, (1974), 37–50.

1975

40. (with R. Schultz), On the semisimple degree of symmetry. Bull. Soc. Math. France, 103, (1975), no. 4, 433–440.

1977

41. The structure of block-automorphisms of $M \times S^1$. Topology 16 (1977), no. 1, 65–78.

42. (with R. Lashof) Stability of concordances and the suspension homomorphism. Ann. of Math. (2) 105 (1977), no. 3, 449–472.

43. On the decomposition of the automorphisms-group of $M \times S^1$. Rev. Roumaine Math. Pures Appl. 22 (1977), no. 1, 17–30.

1978

44. Automorphisms of manifolds. Algebraic and geometric topology (Proc. Sympos. Pure Math., Stanford Univ., Stanford, Calif., 1976), Part 1, pp. 347–371, Proc. Sympos. Pure Math., XXXII, Amer. Math. Soc., Providence, R.I., 1978.

1979

45. Some rational computations of the Waldhausen algebraic K -theory. Comment. Math. Helv. 54 (1979), no. 2, 185–198.

46. The rational homotopy groups of $\text{Diff}(M)$ and $\text{Homeo}(M^n)$ in the stability range. Algebraic topology, Aarhus 1978 (Proc. Sympos., Univ. Aarhus, Aarhus, 1978), pp. 604–626, Lecture Notes in Math., 763, Springer, Berlin, 1979.

1981 47. (with A. Assadi) Examples of asymmetric differentiable manifolds. Math. Ann. 255 (1981), no. 3, 423–430.

1982 48. (with R. Lashof) Geometric transfer and the homotopy type of the automorphism groups of a manifold. Trans. Amer. Math. Soc. 269 (1982), no. 1, 1–38.

1983 49. Converting compact ANR fibrations into locally trivial bundles with compact manifolds as fibers. Compositio Math. 49 (1983), no. 1, 95–107.

50. (with A. Assadi) Symmetry of manifolds and their lower homotopy groups. Bull. Soc. Math. France 111 (1983), no. 2, 97–108.

51. (with A. Assadi) The non triviality of the first rational homology group of some connected invariant subsets of periodic transformations. Proc. Amer. Math. Soc. 88 (1983), no. 4, 701–707.

Errata to: "The non triviality of the first rational homology group of some connected invariant subsets of periodic transformations" [Proc. Amer. Math. Soc. 88 (1983), no. 4, 701–707; MR 84j:57030]. Proc. Amer. Math. Soc. 94 (1985), no. 1, 187.

1984

52. (with Z. Friedorowicz) Hermitian algebraic K -theory of topological spaces. Algebraic K -theory, number theory, geometry and analysis (Bielefeld, 1982), 32–46, Lecture Notes in Math., 1046, Springer, Berlin-New York, 1984.

53. Rational homotopy theory, group actions and algebraic K -theory of topological spaces. Algebraic homotopy and local algebra (Luminy, 1982), 60–86, Astrisque, 113-114, Soc. Math. France, Paris, 1984.

1985

54. The cyclic homology of the group rings. Comment. Math. Helv. 60 (1985), no. 3, 354–365.

55. (with M. Vigue Poirrier) A model for cyclic homology and algebraic K -theory of 1-connected topological spaces. J. Differential Geom. 22 (1985), no. 2, 243–253.

56. (with Z. Friedorowicz) Hermitian algebraic K -theory of simplicial rings and topological spaces. J. Math. Pures Appl. (9) 64 (1985), no. 2, 175–235.

1986

57. Cyclic homology and the algebraic K -theory of spaces. I. Applications of algebraic K -theory to algebraic geometry and number theory, Part I, II (Boulder, Colo., 1983), 89–115, Contemp.Math., 55, Amer. Math. Soc., Providence, R.I., 1986.

58. (with Z. Friedorowicz) Cyclic homology and algebraic K -theory of spaces. II. Topology 25 (1986), no. 3, 303–317.

59. (with C. Ogle) The Künneth formula in cyclic homology. Math. Z. 193 (1986), no. 4, 527–536.

1988

60. (with M. Vigue Poirrier) Cyclic homology of commutative algebras. I. Algebraic topology—rational homotopy (Louvain-la-Neuve, 1986), 51–72, Lecture Notes in Math., 1318, Springer, Berlin-New York, 1988.

61. A localization theorem for functional S^1 -spaces. Math. Ann. 282 (1988), no. 3, 513–527.

62. (with T. Kappeler) Multiplicities of the eigenvalues of the discrete Schrödinger equation in any dimension. Proc. Amer. Math. Soc. 102 (1988), no. 2, 255–260.

1989

63. The free loop space. I. Algebraic topology. Algebraic topology (Evanston, IL, 1988), 59–85, Contemp. Math., 96, Amer. Math. Soc., Providence, RI, 1989.

1991

64. (with L. Friedlander and T. Kappeler) On the determinant of elliptic differential and finite difference operators in vector bundles over S^1 . Comm. Math. Phys. 138 (1991), no. 1, 1–18.

Erratum: "On the determinant of elliptic differential and finite difference operators in vector bundles over S^1 " [Comm. Math. Phys. 138 (1991), no. 1,

1–18, MR 92f:58193]. *Comm. Math. Phys.* 150 (1992), no. 2, 431.

65. (with Z. Friedorowicz and W.Gajda) Adams operations in Hochschild and cyclic homology of de Rham algebra and free loop spaces. *K-Theory* 4 (1991), no. 3, 269–287. Erratum: "Adams operations in Hochschild and cyclic homology of de Rham algebra and free loop space". *K-Theory* 5 (1991), no. 3, 293.

1992

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