

CURRICULUM VITAE

Name: KARL HEINRICH HOFMANN
Rank: Professor
Department: Mathematics
Appointment: September 1963
Date of Birth: October 3, 1932
Heilbronn, Germany

EDUCATION:

1952-57 Universität Tübingen und Universität Hamburg
1957 Prüfung für das Lehramt an höheren Schulen, Universität Tübingen
1958 Dr. rer. nat., Universität Tübingen
1962 Habilitation für das Fach Mathematik, Universität Tübingen

PROFESSIONAL BACKGROUND:

1958-59 Universität Tübingen, Assistant Professor (teaching, research)
1959-60 Universität Tübingen, Member of the Research Group for Mathematical Statistics
1961-65 Universität Tübingen, Dozent (teaching, research)
1963-65 Tulane University, Associate Professor (teaching, research)
1965- Tulane University, Professor (teaching, research)
1977-78 Tulane-Newcomb Junior Year Abroad Program,
Professor-in-Charge, Paris, France (teaching, administration)
1980 Tulane University, W. R. Irby Professor of Mathematics (teaching, research)
1982 Technische Hochschule Darmstadt, Germany, Professor C4 für Mathematik, Arbeitsgruppe 5 (Funktionalanalysis)
1982 Tulane University, Adjunct Professor of Mathematics
1998 Technische Universität Darmstadt, Emeritus Professor of Mathematics

Visiting Positions:

- 1960-61 Tulane University, New Orleans, Visiting Research Associate
- 1966 Universität Tübingen, Germany, Gastprofessor, summer 1966
- 1967-68 Institute for Advanced Study, Princeton, N.J.: Visiting Member, (also summer, 1965)
- 1973-74 Université de Paris VI, Paris, France; professeur associé
- 1974 Technische Hochschule, Darmstadt, Germany, Gastprofessor (summer)
- 1977 La Trobe University, Melbourne, Australia, Visiting Professor (May 1 - June 4)
- 1980-81 Technische Hochschule, Darmstadt, Germany, Gastprofessor
- 1986 Université Catholique de Louvain-la-Neuve, Belgium, professeur invité (January 20- 25)
- 1987 Université Catholique de Louvain-la-Neuve, Belgium, professeur invité (April 13-18)
- 1988 Université Catholique de Louvain-la-Neuve, Belgium, professeur invité (March 7-April 1)
- 2000 University of South Australia, Mawson Lakes Campus, Adelaide, Visiting Scholar (October 15- January 30, 2001)
- 2002 University of Ballarat, Victoria, Australia Visiting Scholar (October 14- January 31, 2003)
- 2004 University of Ballarat, Victoria, Australia Visting Research Professor (October-January, 2005)

SELECTED PUBLICATIONS:

A. Papers in Journals(since 2000):

- 177. G-spaces and fixed point sets, *Geometriae Dedicata* **83** (2000), 39–61 (with J. Martin).
- 180. A structure theorem on compact groups, *Math. Proc. Camb. Phil. Soc.* **130** (2001), 409–426 (with S. A. Morris).
- 181. Transitive actions of compact groups and topological dimension, *Journal of Algebra* **234** (2000), 454–479 (with S. A. Morris).
- 182. Arc components of locally compact groups are Borel sets, Preprint Nr. **2095**, FB Math. TU Darmstadt, Mai 2000, submitted.
- 184. *Angewandte Mathematik in der Renaissance*, *Mitteilungen der Deutschen Mathematiker Vereinigung*, Heft 4/2000, 26-33.
- 187. Counting the topological dimension of large homogeneous spaces of compact groups, in: Ignacio Bajo Palacio and Esperanza Sanmartín, Eds., *Recent Advances in Lie Theory, Research and Exposition in Mathematics* **25** (2002), Heldermann Verlag, Lemgo, 261–269.
- 188. The low separation axioms T_0 and T_1 , in: K. P. Hart, J.-I. Nagata, and J. E. Vaughan, Eds., *Encyclopedia of General Topology*, Elsevier Science B.V., Amsterdam etc., 2004, 155–157.

189. Die Ästhetik von Formeln— Bernar Venets Wandbilder, *Mitteilungen der Deutschen Mathematiker-Vereinigung* 3–2001 (2001), 27–32.
192. The exponential function of locally connected compact abelian groups, *Forum Mathematicum* (2003), (with S. A. Morris and D. Poguntke).
193. Projective limits of finite dimensional Lie groups, *Proceedings of the London Math. Soc.* (3) **87** (2003), 647–676 (with S. A. Morris).
194. Commutative diagrams in the fine arts, *Notices Amer. Math. Soc.* **49-6** (June/July) (2002), 663–668.
196. 10 Jahre neue Mitteilungen der Deutschen Mathematiker Vereinigung, *Mitteilungen der Deutschen Mathematiker Vereinigung* 1-2003, 34–38.
197. The structure of abelian pro-Lie groups, *Mathematische Zeitschrift* **248** (2004), 867–891 (with S. A. Morris).
200. Sophus Lie’s Third Fundamental Theorem and the Adjoint Functor Theorem, *Journal of Group Theory* **8** (2005), 115–133 (with S. A. Morris).
201. Commuting exponentials in a real Lie group, *Math.Proc. Cambr.Phil.Soc.* **141** (2006), to appear (with Walter J. Michaelis)
202. Zeitschriftenherausgeber in Mathematik und IT und ihre Szene, *Mitteilungen der Deutschen Mathematiker Vereinigung* bf13 (2005), 36–45 (with Sidney A. Morris)
203. An Open Mapping Theorem for pro-Lie Groups, *J. Austral. Math. Soc.* to appear, 22 pp. (with Sidney A. Morris)
204. Kann man die von Kochsche Kurve hören? Chronik einer Romreise. *DMV Mitteilungen* **13** (2005), 138–143
206. Iwasawa’s local splitting theorem for Pro-Lie Groups TeXscript, 22pp., submitted (with Sidney A. Morris)
207. Hurrikan Katrina und die Lage der Mathematik in New Orleans, Brief an den Herausgeber, *Mitteilungen der Deutschen Mathematiker Vereinigung* **13** (2005), 208–209
208. Pro-Lie groups as infinite dimensional Lie groups, in preparation (with K.-H.Neeb)
209. Open Mapping Theorems for Topological Groups, in preparation, to be submitted to *Topology Proceedings*, 15 pp. (with Sidney A. Morris)

B. Selected Books or Monographs:

2. *Splitting in Topological Groups*, *Memoirs of the Amer. Math. Soc.* **43** (1963), 75 pp. (with P. S. Mostert). Third Printing 1993.

3. Elements of Compact Semigroups, Charles E. Merrill, Columbus, Ohio, 1966, xiii + 384 pp. (with P. S. Mostert).
4. Compact Semitopological Semigroups and Weakly Almost Periodic Functions, Lecture Notes in Mathematics **42**, Springer-Verlag, 1967, 160 pp. (with J. Berglund).
5. Representation of Rings by Sections, Memoirs of the Amer. Math. Soc. **83**, 1968, 180 pp. (with J. Dauns).
8. Cohomology Theories of Compact Abelian Groups, Deutscher Verlag der Wissenschaften, Berlin, 1973 (and Springer-Verlag Berlin-Heidelberg-New York 1974), 236 pp. (with P. S. Mostert).
12. A Compendium of Continuous Lattices, Springer-Verlag Berlin, Heidelberg, New York, 1980, xx + 371 pp. (with G. Gierz, K. Keimel, J. D. Lawson, M. Mislove, D. Scott). Second Edition in Preparation.
14. Lie Groups, Convex Cones, and Semigroups, Oxford University Press (1989), xxxiii + 645 (with J. Hilgert and J. D. Lawson).
15. Lie Groups and Subsemigroups with Surjective Exponential Function, Memoirs of the American Mathematical Society, **130**, 1997, viii+174pp. (with W.A.F. Ruppert).
16. The Structure of Compact Groups, Verlag Walter De Gruyter Berlin, 1998, xvii+834pp. Second Revised and Augmented Edition 2006, xviii+858pp., (with Sidney A. Morris).
17. Poster Cartoons 1983–1998 / Plakate aus 15 Jahren *Poster Cartoons by Karl Heinrich Hofmann for the Mathematical Colloquium*, Technische Universität Darmstadt, 1998, xxi+132pp (Catalogue of an Exhibition at the International Congress of Mathematicians in Berlin, August 1998, ISBN 3-88607-119-7 See also DMV-Mitteilungen 3/ 1996, “Darmstädter Kolloquiumsbilder”, pp.22–35
18. Analysis I—An Introduction to Mathematics via Analysis in English and German, Heldermann Verlag, Lemgo, 2000, xx+398pp.
19. The Lie Theory of Connected Pro-Lie Groups - A Structure Theory for Pro-Lie Algebras, Pro-Lie Groups and Connected Locally Compact Groups, EMS Publishing House, Zürich, 2006, xvii+681pp., with Sidney A. Morris, to appear.
20. Continuous Lattices and Domains, Cambridge University Press (with G. Gierz, K. Keimel, J. D. Lawson, M. Mislove, D. Scott). Second and thoroughly revised edition of item [12.] above. Encyclopedia of Mathematics and its Applications **93**, Cambridge Univ. Press 2003, xxxvi + 591 pp.

C1. Books and Articles illustrated:

Aigner, M., Zwischen Mythos und Banalität—Von der Schwierigkeit, Mathematik zu vermitteln, (5 Illustrationen) Mitteilungen der Deutschen Mathematiker Vereinigung 3-2003, 18–22.

Aigner, M. and G. M. Ziegler, Proofs from the Book, Springer-Verlag Berlin etc., 1998, viii+199pp. Second Edition 2001, viii+215 pp. (three additional drawings for newly inserted text), German Version 2002: Das BUCH der Beweise, 2002 viii+247 pp. (one replacement drawing p. 153), Second Edition 2003 Japanese Translation, 2002, xiii+314 pp. Third Edition 2003. Polish Translation 2002.

Bajo, I. and E. Sanmartín, Eds., Recent Advances in Lie Theory, R&E in Mathematics **25**, 2002, xiii+398 pp., Illustrationen: 1, 262, 263, 393.

Enzensberger, Hans Magnus, Zugbrücke außer Betrieb/Drawbridge up — Die Mathematik im Jenseits der Kultur/A Cultural Anathema, A. K. Peters, Natick, Massachusetts, USA, 1999, 48pp Hardcopy edition 2001, ISBN 1-56881-156-X; Japanese Edition 2003, ISBN 4-535-78351-9, 75pp

Gohberg, I., A. F. dos Santos, F.-O. Speck, F. S. Teixeira, and W. Wendland, Eds., in: Operator Theory—Advances and Applications **147** (2004), “Operator Theoretical Methods and Applications to Mathematical Physics—The Erhard Meister Memorial Volume, Birkhäuser Verlag, Basel etc., 2004. Illustration pp. 44 and 45. (Also published in Book no [17.] above, p. 43.

Hofmann, K. H., Analysis I, see “Books” [18] above.

Winterstein, S. und G. Sommer, Hrsg., Dokumentationsband Strudlhofstiege, Österreichische Verlagsgesellschaft, Wien, 2007, 128 S.

C. Journal and Series Editing:

Managing Seminar Sophus Lie 1, 2, 3 Heldermann Verlag Berlin, 1991-1993, continues as “Journal of Lie Theory” Vol. 4 (1994) through Vol 8 (1998), Deputy Managing Editor since Vol 8-2.

Editor: Semigroup Forum, New York 1970-1998

Honorary Editor: Semigroup Forum, New York 1998–

Editor:

Editor: Forum Mathematicum, Berlin 1989-1998

Wissenschaftlicher Beirat: Mathematische Zeitschrift, Heidelberg 1972-1995

Editor: R & E (Research and Exposition in Mathematics), Heldermann Verlag, Berlin, 1981-

C. Editing of Collections :

Editor: (with J. D. Lawson and J. Pym) The analytical and topological theory of semigroups: Trends and Directions, De Gruyter Verlag, Berlin, 1990.

Editor: (with R. Wille) ”Symmetry“ – A collection of essays on the symmetries of discrete structures, Heldermann Verlag Berlin, 1990.

- Editor: (with J. D. Lawson and E. B. Vinberg) Semigroups in Algebra, Geometry, and Analysis, de Gruyter Verlag, Berlin, 1995, viii + 368 pp.
- Editor: (with Michael W. Mislove) Semigroup Theory and Applications, London Math. Soc. Lecture Notes Series **231**, Cambridge Univ. Press, 1996, ix+165pp.
- Editor: (with Gerhard Betsch) Hellmuth Kneser: Gesammelte Abhandlungen/ Collected Papers, with contributions by Irvine Noel Baker†, David Gabai, Cameron Mc.A. Gordon, Alan Huckleberry, William H. Kazez, Jürgen Kindler, Günter Pickert, Michael Range, Reinhold Remmert, and Gudlaugur Thorbergsson; Verlag Walter De Gruyter, Berlin, 2005, xvi +923 pages.

DISSERTATIONS DIRECTED:

- 1) 1963 Sigmund Hudson (with Paul S. Mostert)
- 2) 1965 Klaus Keimel
- 3) 1966 Dong Hoon Lee
- 4) 1967 Frank Eckstein
- 5) 1968 John F. Berglund
- 6) 1969 David Kahn
- 7) 1970 Eric C. Nummela
- 8) 1971 Alonso Takahashi
- 9) 1972 Howard E. Evans
- 10) Januario Varela (with John Dauns)
- 11) 1973 William A. Greene
- 12) Dietrich Helmer
- 13) 1973 William F. LaMartin
- 14) Fritz Krauss
- 15) 1974 John Yuan (with Michael Mislove)
- 16) 1975 David Wallace
- 17) 1980 Lester W. Jones
- 18) 1981 Jaime Niño
- 19) Michael Castellano
- 20) 1982 Joachim Hilgert
- 21) 1984 Verena Keith
- 22) 1987 Stefan Ihringer
- 23) 1988 Karlheinz Spindler
- 24) 1990 Wolfgang Weiss
- 25) 1990 Karl Hermann Neeb
- 26) 1991 Christian Terp
- 27) 1991 Anselm Eggert
- 28) 1991 Norbert Dörr
- 29) 1992 Werner Schindler (with Jürgen Lehn)
- 30) 1993 Dirk Mittenhuber
- 31) 1995 Angelika May
- 32) 1995 Michael Wüstner
- 33) 1995 Martin Schwachhöfer
- 34) 1995 Christian Gross
- 35) 1998 Brigitte Breckner
- 36) 1999 Robert Graeff
- 37) 2001 Ulrike Klein