

Catalogue of the papers and correspondence of

JOHN FRANK ADAMS FRS

(1930-1989)

Compiled by Timothy E. Powell and Peter Harper

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GENERAL INTRODUCTION

PROVENANCE

The papers were received in March 1990 from the Department of Pure Mathematics and Mathematical Statistics, Cambridge University, through the good offices of Dr C B Thomas. Additional material assembled during the preparation of the Royal Society memoir of Adams was received from Professor I M James FRS in December 1990.

OUTLINE OF THE CAREER OF J F ADAMS

John Frank Adams was born in Woolwich on 5 November 1930. He was educated at Bedford School and won an Open Scholarship to Trinity College Cambridge in 1949 where he studied mathematics.

Following his graduation he began research at Cambridge, initially under A S Besicovitch then under S Wylie, and received his PhD in 1955. Adams was appointed to a Junior University Lecturership in 1955 and was a Research Fellow at Trinity College Cambridge 1955-58. He spent 1957-58 studying at the University of Chicago and at Princeton as a Commonwealth Fellow.

On his return to Cambridge Adams was appointed Fellow, College Lecturer and Director of Studies in Mathematics at Trinity Hall, posts held until 1962 when he took up a Readership at Manchester University. In 1964 Adams succeeded M H A Newman as Fielden Professor of Pure Mathematics there.

In 1970 Adams returned to Trinity College Cambridge as a Fellow when he was appointed to the Lowndean Chair of Astronomy and Geometry in succession to Sir William Hodge, a position he held until his death in January 1989.

Adams's most important area of research was in homotopy theory. He developed the algebraic system known as the Adams Spectral Sequence and did pioneering work on cohomology operations in K-theory. In 1965 he introduced the Adams conjecture (now the Adams theorem) into the study of K-theory.

His outstanding achievements in mathematics were recognised by his election to the Fellowship of the Royal Society in 1964 (while still only 34) and the award of the Society's Sylvester Medal in 1982. Adams was also elected a Foreign Associate of the US National Academy of Sciences and an Honorary Member of the Royal Danish Academy; in 1986 he was awarded an honorary doctorate by the University of Heidelberg.

For a full account of the life and career of Adams see the memoir by I M James (Biographical Memoirs of Fellows of the Royal Society, 36, 1990).

DESCRIPTION OF THE COLLECTION

The material is presented in the order given in the List of Contents. The collection is particularly noteworthy for its coverage of Adams's lectures, research and incoming correspondence.

Section A, Biographical, is not substantial. It includes a little material of Adams's relating to his own career including three Bedford School notebooks and his PhD thesis, and material assembled by I M James during the preparation of his Royal Society memoir.

Section B, Research, provides extensive documentation of Adams's research from the 1950s until his death. It is presented in an alphabetical sequence arranged by subject title.

Section C, Lectures, is the largest in the collection. Two subsections comprise Adams's lecture notes and other teaching material for courses given at Manchester and Cambridge, and material from conferences and seminars attended by Adams throughout the world including drafts of Adams's contributions and notes of contributions by others. A third subsection consists of Adams's ms notes found in filing cabinet drawers labelled 'Other people's lectures'. It includes notes taken by Adams as an undergraduate at Cambridge in 1949.

Section D, Publications, is very slight. It includes drafts of a few of Adams's scientific papers.

Section E, Correspondence, contains virtually no extended exchanges of correspondence as very few copies of Adams's own letters survive. There is, however, significant correspondence from colleagues such as M F (later Sir Michael) Atiyah, M G Barratt, P J Hilton, I M James and S MacLane, sometimes extending over a period of twenty or thirty years.

There is also an index of correspondents.

ACKNOWLEDGEMENTS

We are very grateful to Dr C B Thomas and Professor I M James for making the material available, and to Professor J H Davenport, University of Bath, for comments on the draft catalogue.

Timothy E Powell

Peter Harper

1991

SECTION A

BIOGRAPHICAL

A.1 - A.19

- A.1 The Times obituary 30 January 1989.

 Independent obituary 14 January 1989.
- A.2 List of publications.
- A.3 List of Adams's Cambridge research students (includes
 only those working under Adams for more than one year).
- A.4 - A.6 Three hardback notebooks used for Bedford School sixth-form
 mathematics notes, numbered '1', '2' and '3' on front covers.
- A.4 '1'. Inscribed inside front cover 'D. Adams I. VI Calculus'
 with list of contents given beneath. Paginated. Also used
 from the back for mathematics notes.
- A.5 '2'. Inscribed inside front cover 'D. Adams VI Mathematics'.
 Also used from the back.
- A.6 '3'. Inscribed inside front cover 'J.F. Adams VI '. Also
 used from the back.
- A.7 'On spectral sequence and self-obstruction invariants'.
 Adams's Cambridge Ph.D. thesis 1955. Bound copy.
- A.8 Correspondence from S Wylie, 1958, re appointment to
 University Assistant Lectureship, possible College Fellowship, etc.
- A.9 Offers of appointment at University of Chicago 1959 and
 1960-61; offer of appointment at Rutgers University 1966;
 letter declining Adams's application for post at State
 University of New York, Stony Brook, 1970.

 Correspondence re award of Honorary Doctorate of the
 University of Heidelberg, May 1986.

Biographical

- A.10 Notice of Adams's death; letters to family after Adams's death.
- A.11 - A.19 Material assembled by I M James during the preparation of his Royal Society memoir of Adams. This principally consists of reminiscences of Adams and other material sent to James by friends and colleagues, arranged alphabetically by contributor.
- A.11 Bahn, T includes photograph of Adams.
Best, G
Bousfield, A K
Clegg, A B
- A.12 Davis, D M
Greenlees, J P C
Gugenheim, V K A M
- A.13 Johnstone, P
Kendall, D G
May, J P. Address at Memorial Service for Adams, 29 April 1989, 12pp typescript.
- A.14 Moss, R M F
Polkinghorne, J C

Biographical

- A.15 Ravenel, D C

 Ray, N

 Sjogren, J A

 Snaith, V
- A.16 Sutherland, W A

 Tangora, M C

 Thomas, C B
- A.17 Walker, G
- A.18,A.19 Other material.
- A.18 'Report on Tenure of a Commonwealth Fund Fellowship',
Adams's report on his research conducted in USA 1958.
7pp photocopied typescript.
- 'Conversation between a Topologist and Two Machines',
5pp photocopied ms, 10 January 1984.
- 'An Inquiry into some work of William M Singer'.
11pp photocopied ms, nd.
- A.19 Photocopied letter to research student, 11 November
1981.

SECTION B

RESEARCH

B.1 - B.173

The material is principally Adams's undated ms drafts, notes and calculations documenting his research from the 1950s until his death. It was found in Adams's own folders with titles inscribed thereon. These titles have been reproduced in the catalogue entries and form the basis for the arrangement of the material in an alphabetical sequence. At the end of this sequence is miscellaneous research material including 'work done' and 'work in progress'. The contents of bulky folders have been subdivided for ease of reference.

At B.173 is Adams's card-index of bibliographical references.

- B.1 'On Adem-Steenrod Operations'. Includes untitled 12pp ms draft beginning 'Let Λ be a principal ideal domain of coefficients'.
- B.2 'Algebraic Geometry'. 22pp duplicated ms draft (not in Adams's hand).
- B.3 'Amusements'. Miscellaneous puzzles, calculations etc.
- B.4 'Anderson's work'. Notes on work of Anderson. Includes 9pp ms note 'Definition in terms of bdles' on verso of 1963 example sheets.
- B.5 - B.7 'Atiyah's "Maps of degree k" idea'. Notes on work of M F Atiyah. 3 folders.

Research

- B. 8 'MGB [M G Barratt] stuff'.
- B. 9 - B.11 'WORK WITH MGB'.
- B. 9 Letter to Michael [Barratt] re 'the argument you left on my blackboard', written 'Manchester 12th Feb'; ms calculations (some on verso of 1963 example sheets). See also B.113.
- B.10, B.11 Miscellaneous ms notes etc. 2 folders.
- B.12, B.13 'Bass. Alge. K-theory'. Notes on work of H Bass.
- B.12 Ms notes on 'Topics in Algebraic K-theory'.
- B.13 Ms notes on 'Higher K-theory'.
- B.14-B.18 'N Blackburn. Lie algebras'. Notes on work of N Blackburn. 5 folders.
- B.19-B.32 Work by D P Carlisle and P H Kropholler.
- B.19, B.20 'David Carlisle and Peter Kropholler's work'.
- B.19 'On the "magic formula" of Carlisle & Kropholler', 14pp ms;
'Statement of the work of Carlisle and Kropholler', 5pp ms.
- B.20 Correspondence with Kropholler, August, September 1987;
ms notes.
- B.21 'Results, n=2'.
- B.22 'Results, n=3'.

Research

- B.23 'Tabulated results'.
- B.24, B.25 'General theory'. 2 folders.
- B.26 - B.28 'Proofs of results asserted'. 3 folders.
- B.29- B.32 'INVARIANTS'
- B.29 'Final steps in the symplectic case' by Kropholler and Carlisle, 5pp ms, with Adams's comments of 4 September 1987; 'Notes on Galois Theory', 3pp ms; ms notes on 'Bilinear Algebra' and 'Quadratic Algebra'.
- B.30 - B.32 Miscellaneous ms notes and calculations. 3 folders.
- B.33 - B.35 'Work on chain complexes with extra structure, iterated cobar etc.' 3 folders.
- B.36 - B.38 'Ciphers etc.' Ms tables and notes. 3 folders.
- B.39 - B.44 'Conway'. Notes on work of J H Conway.
- B.39 'A simple construction for the Fischer-Griess Monster Group' by Conway, dedicated 'To one who will understand. July 8, 1984'. 25pp typescript + appendix.
- B.40 'The Steiner triple system $S(5,8,24)$ '. Ms notes.
- B.41 Ms notes on 'The Hexacode', 'Sylvester's combinatorics' and 'The Golay code'.
- B.42 - B.44 Miscellaneous ms notes on Conway's work. 3 folders.

Research

- B.45, B.46 'CONWAY ON MONSTER'.
- B.45 Ms notes on 'J H Conway. Monster'.
- B.46 'The Golay code \mathcal{G} and cocode \mathcal{G}^* '. 19pp typescript draft + appendices.
- B.47 'Cubes'.
- B.48 - B.50 'Fibre-Bundles and Characteristic Classes'. 3 folders.
- B.51 'Hirzebruch problem'.
- B.52 'Work with [P N] Hoffman'.
- B.53, B.54 'Hurwitz-Radon'.
- B.53 'Hurwitz-Radon Revisited', 10pp ms; ms note 'Hurwitz-Radon à la Wood'.
- B.54 Ms notes.
- B.55 - B.58 'Drafts on J & Work'. 4 folders.
- B.59 - B.66 'Work on K-theory spectral sequence'. Material re joint research with D W Anderson, c 1964.
- B.59 Correspondence, including Adams's 'attempt to explain my approach to our spectral sequence', 39pp ms.

Research

- B.60 Ms notes on 'Requisites for setting up a spec. seq.' etc.
- B.61 Correspondence from Anderson. Includes 7pp ms and 12pp typescript drafts of 'Vector fields on Spheres' by Anderson.
- B.62 Letter from M Boardman, 9 December 1964, re Adams's 'comments on the spectral sequences'; 'A generalization of the Adams spectral sequence' by Anderson 22pp ms; ms notes.
- B.63 Correspondence from Anderson. Includes 'The Adams spectral sequence for generalized cohomology', 10pp ms, 'Cohomology operations in p-adic K-theory', 4pp typescript and ms, 'Convergence of the K-theoretic Adams spectral sequence', 9pp ms.
- B.64 'A spectral sequence defined using K-theory' by Adams, 28pp photocopied ms.
- B.65, B.66 Ms notes, some on verso of 1963 and 1964 University of Manchester circulars. 2 folders.
- B.67 'K-theory spec. seq; Anderson & notes on him'.
- B.68-B.70 'K p ∞ '. Ms notes, calculations, tables etc., some on verso of 1965 circulars. 3 folders.
- B.71-B.74 'Work on K(U)'.
- B.71 'Two results on Chern characters', 9pp ms; 'Talk for Bonn', 4pp ms; 'Draft for Atiyah', 7pp ms.

Research

- B.72-B.74 Miscellaneous ms notes, tables etc. 3 folders.
- B.75-B.78 ' $\Omega(K)$ '.
- B.75 'On the cobar construction', 16pp ms; ms note on verso
of 1955 letter.
- B.76-B.78 Miscellaneous ms notes etc. 3 folders.
- B.79 'Knopfmacher's problem'. Includes notes on verso of
1962-63 example sheet.
- B.80 'Lang'. Notes on work of S Lang.
- B.81 'Ledgard course on K^1 '. Notes on work of R Ledgard.
- B.82-B.84 'Lie Groups notes'.
- B.82 'Notes on maximal tori, etc.' by R G Swan, 29pp typescript;
ms notes on it by Adams, 9pp.
- B.83 Ms notes on work of I M Singer and H Hopf.
- B.84 Miscellaneous notes, bibliographical references etc.
- B.85, B.86 'Landweber'. Notes on work of P Landweber and complex
bordism. 2 folders.
- B.87 'MacLane Categories, Sheaves and Logic'. Notes on work
of S MacLane.

Research

- B.88-B.93 'Maps inducing non-zero homomorphisms of \tilde{K}_p '.
- B.88,B.89 Ms note 'Alternative approach to the Essential Map'.
2 folders.
- B.90 'Calculations using method of "killing homotopy groups"...'.
- B.91 'Killing homotopy groups: unstable case'.
- B.92 'Killing homotopy groups: stable case'.
- B.93 'Some applications of K-theory to homotopy theory',
ms notes and tables.
- B.94-B.96 'May: Geometry of Iterated Loop Spaces'. Notes on
work of J P May. 3 folders.
- B.97,B.98 'Notes on Peter May, etc.' 2 folders.
- B.99-B.102 'Obstructions: Homotopy Groups'. Some material on back
of duplicated typescript sheets 1954. At B.100 is rough
draft of letter to G W Whitehead. 4 folders.
- B.103-B.107 'Calculations about Operations of Higher Kinds in RP^∞ ,
 CP^∞ '. Includes note on back of 1960 Trinity Hall
register of addresses. Some sets of calculations have
later annotations by Adams. 5 folders.
- B.108 'Operations on simplicial chains'.

Research

- B.109-B.112 'Proj[ective] Class Groups'. Ms notes, tables, calculations etc.
- B.109 Includes letter from D Rees, nd, and C Hooley, 17 March 1966.
- B.110 Ms notes on 'o) Jordan-Holder Theorem'.
- B.111,B.112 Miscellaneous notes. 2 folders.
- B.113-B.118 'Quadratic Constr[uctio]n & MGB[arratt] on h^2 '.
B.113 Duplicated ms notes on work of Barratt and M E Mahowald, 1968; 'MGB notes on my blackboard', 4pp ms (See also B.9); copy of letter from ?Mahowald to Barratt.
- B.114 'Princeton lecture' on recent work of Barratt and Mahowald, 13pp ms; ms notes.
- B.115 Ms notes on 'Quadratic Construction'.
- B.116-B.118 Ms notes 'On the quadratic construction', 'On the squaring approach', etc.
- B.119 'Ravenel'. Notes on work of D C Ravenel.
- B.120 'Reciprocity Laws'.
- B.121 'Samelson'. Includes notes on work of H Samelson.

Research

- B.122-B.129 'Work with Saunders [MacLane]' on PACTS. Chiefly correspondence 1963, 1966.
- B.122 Correspondence with MacLane, May-June 1963.
- B.123 Correspondence to MacLane, 21 and 25 April 1966, enclosing 'a draft on the "interpreted" PACT Ω ', paginated 1.1-8.2.
- B.124 Correspondence April-May 1966. Includes Adams's 'Draft 1 on the Bar Construction', 8pp ms.
- B.125 Correspondence June 1966. Includes MacLane's draft 'Comparison of Cobar and Loop Space Construction for the operations of a Steenrod PACT', 9pp ms.
- B.126 Correspondence July 1966, re MacLane's draft.
- B.127 Correspondence August 1966.
- B.128 'Draft on the Acyclic-Models Argument', 10 September 1966; untitled 9pp ms note beginning 'My first objective is a fairly good PACT $\Pi(\infty)$...'.
- B.129 Miscellaneous notes.
- B.130-B.133 'Splitting Cohomol. Theories'.
- B.130 'Splitting generalized cohomology theories with coefficients', 13pp duplicated ms; 'Seminar for B.M.C.' on splitting cohomology theories, 7pp ms.

Research

- B.131 Untitled note beginning 'It seems to me that Proposition 1.15 could be proved more lucidly by using a certain amount of general theory', 17pp photocopied ms; ms notes.
- B.132,B.133 Lecture notes 'On splitting cohomology theories with coefficients'. 2 folders.
- B.134,B.135 'Notes on [R G] Swan'. 2 folders.
- B.136-B.139 'Swan course'. Photocopied ms notes on lectures given by Swan March-April 1973, with Adams's ms notes found therewith. 4 folders.
- B.140,B.141 'New work on Systematic htpy theory with [?] 2 coeffts'.
2 folders.
- B.142 'Zariski'. Notes on work of O Zariski.

Miscellaneous

- B.143-B.146 'Manuscript Notes of Papers'.
- B.143 Correspondence 1954-55 from J H C Whitehead, J-P Serre and J C Moore.
- B.144 Correspondence June, October 1955 from Moore.

Research

- B.145,B.146 Ms notes on the literature etc., some in French. 2 folders.
- B.147-B.149 'Notes' on the work of others. 3 folders.
- B.150,B.151 'Work on Mark's problem'. 2 folders.
- B.152 'Problems etc.'
- B.153-B.156 'Work Done'. Ms notes and calculations, some with later annotations identifying the work.
- B.153 Includes 'On the topology of Cauchy's Theorem',
'On Operations' (described as 'work done in Trin. Summer 57'.)
- B.154 Includes 'Relative spaces'.
- B.155 Includes 'Chain algebras'; 'Combinatorial work';
'Cartan constructions'.
- B.156 Includes 'On isotropic Cartesian tensors', 3pp; 'On
null sets'; 'Existence of a non-Abelian group complex'.
- B.157-B.159 'Various sorts of Work Done'. Ms drafts and notes, some
with later annotations identifying the work.
- B.157 Ms drafts annotated 'This is a draft about the connections
between Homological Algebra & Algebraic Topology which I
started writing in connection with Saunders [MacLane]'s book',
and 'This is a draft for Irvin on the index of a manifold'.

Research

- B.158 'Contents. (1) Idea of Stallings for obtaining $K^{\wedge, L}$ by subdividing a simplex. (2) Draft on A_{∞} -spaces. (3) Some sheets with diagrams making things explicit'.
- B.159 Includes 'Annular neighbourhoods in manifolds', 3pp; 'Homological algebra', 3pp.
- B.160 'WORK DONE'. Ms notes and calculations.
- B.161-B.169 'Work in progress'
- B.161-B.163 Ms tables, notes, calculations. 3 folders.
- B.164 Ms tables annotated 'Final answer'.
- B.165 'Generalities on change of rings' annotated 'Good proof'.
- B.166 'Good proof'.
- B.167 'Direct definition of P_r '.
- B.168, B.169 Ms notes, etc. 2 folders.
- B.170, B.171 'Work in (?) progress'.
- B.170 'Stable Homotopy Theory', 7pp ms; 'Remarks on stable oper[atio]ns of the nth kind, for Richard'; ms notes.

Research

- B.171 Index cards from Adams's 'Work-to-be-done file';
 'Research problems...'; etc.
- B.172 'Current Research'.
- B.173 Bibliographical references arranged alphabetically
 by author. In card index box.

SECTION C	LECTURES	C.1 - C.708
	C. 1 - C.344	Teaching
	C.345 - C.646	Conferences and Seminars
	C.647 - C.708	'Other people's lectures'

TEACHING

Lecture notes and a little other teaching material from courses Adams gave at Manchester and Cambridge. The material was found in Adams's folders usually with the title of the course inscribed thereon. These titles are reproduced in the catalogue entries. Contents of bulky folders have been subdivided for ease of reference.

The lecture notes are manuscript and often written on the verso of earlier lecture notes, students' examination scripts etc. They are sometimes paginated, either as a complete course or as a series of individual lectures. With these notes were found drafts of examination questions, lists of students, sheets of students' comments on Adams's lectures etc.

The material is arranged according to subject as follows:

C. 1 - C. 89	Algebra	C.231 - C.248	Lie Groups
C. 90 - C.129	Geometry	C.249 - C.263	Representation Theory
C.130 - C.143	Homology	C.264 - C.315	Topology
C.144 - C.218	Homotopy	C.316 - C.344	Miscellaneous
C.219 - C.230	K-theory		

Lectures

Algebra

- C.1 - C.11 'Algebra Year 1. Term 1.'
- C.1 'MT 111 Algebra, Michaelmas Term 1966' lecture notes.
- C.2 - C.7 'Algebra Notes'. 6 folders.
- C.8 'MT 111 Mich.Term 66 Examples 6'; '111 Algebra Examples 1';
ms draft 'Challenge Problem' and examination questions.
- C.9 'MT 111 Revision Notes Autumn 67'.
- C.10 'Course examinations January 1969 MT 111'; MT 111
vacation questions and model answers.
- C.11 Miscellaneous notes.
- C.12 - C.21 'ALGEBRA I'.
- C.12 Course summary, compiled summer 1981; example sheets;
examination questions.
- C.13 Questionnaires on contents and style of Adams's algebra
lectures completed by first year students 1980; requests
from students for topics to be covered.
- C.14 - C.17 'Algebra I' lecture notes. 4 folders.
- C.18, C.19 Students' questions, requests for guidance etc. These
are on slips of paper clipped to drafts of Adams's
replies. 2 folders.

Lectures

- C.20, C.21 Miscellaneous notes. 2 folders.
- C.22 - C.29 'Algebra IA'.
- C.22 - C.27 Lecture notes. 6 folders.
- C.28 Students' questions and requests for guidance on the
course.
- C.29 Notes arising from '3 requests for work on duality'.
- C.30, C.31 'ALGEBRA IA'.
- Students' questions and requests for guidance, with
Adams's answers. 2 folders.
- C.32 '111 algebra: solutions to examples'.
- C.33, C.34 'ALGEBRA II'.
- Lecture notes. 2 folders.
- C.35 - C.38 'MT 200 Algebra Course'.
- C.35 - C.37 Lecture notes. 3 folders.

Lectures

- C.38 Algebra II question sheets.
- C.39 - C.43 'Multilinear Algebra Prof Adams'.
- C.39 - C.42 'Multilinear Algebra' lecture notes annotated '117 pages.
Lecture at rate of 10 pages a lecture'. 4 folders.
- C.43 'Exterior Powers' lecture notes; 'MT 211 - Examples -
Summer I'.
- C.44, C.45 '211 Algebra'.
- C.44 '2nd year [summer-term] algebra course'.
- C.45 Miscellaneous notes.
- C.46 - C.53 'F[urther] II Algebra'.
- C.46 - C.48 'F II algebra' lecture notes. 3 folders.
- C.49 - C.51 'Chap.II Modules, Vector Spaces. Linear Algebra'.
3 folders.
- C.52, C.53 Notes on 'worked examples'. 2 folders.
- C.54 - C.59 'Third-year Normal Algebra Course'.
- C.54 'Proposed schedule for third-year normal algebra course';
list of students; note of questions on the course raised
by students.

Lectures

- C.55 - C.58 'Algebra course' lecture notes. 4 folders.
- C.59 'Chap.III. Fields' lecture notes.
- C.60 - C.65 'Commutative Algebra'.
- C.60 Examples, examination questions on commutative algebra for Part III of the Mathematical Tripos 1972.
- C.61 - C.65 'Commutative Algebra' lecture notes. 5 folders.
- C.66 - C.69 'Commutative Algebra (2)'.
- C.66 Draft examination questions, examples etc.
- C.67 - C.69 Lecture notes. 3 folders.
- C.70 - C.74 'Commutative Algebra, Version 2'.
- Miscellaneous notes. 5 folders.
- C.75 - C.81 'Algebra for Applied Algebraists'.
- C.75 - C.80 'Algebra for Applied Algebraists' lecture notes. 6 folders.
- C.81 'Algebra for Applied Algebraists' lecture notes; 'Modules over a principal ideal domain', duplicated ms notes.

Lectures

- C.82 - C.86 'Further topics in algebra'.
C.82 Exercises for Further Topics in Algebra course, 1987.
C.83 Students' questions and requests for guidance on the course.
C.84 Ms and typescript course notes.
C.85, C.86 Lecture notes. 2 folders.
C.87 - C.89 'Further Topics in Algebra'.
C.87 Booklists circulated 27 April 1987; exercises for Lent Term 1987.
C.88 Duplicated ms course notes.
C.89 'Further Topics in Algebra' lecture notes.

Geometry

- C.90 - C.95 'Geometry IB course'.
C.90 'IB Geometry' example sheets; correspondence from D W Babbage re geometry examination questions 1974-75.

Lectures

- C.91 Questionnaires on content and style of Adams's IB geometry lectures completed by students 1974.
- C.92 - C.95 Lecture notes. 4 folders.
- C.96, C.97 'Geometry hand-outs'. 2 folders.
- C.98 - C.104 'Geometry'.
- C.98 Questionnaires on Adams's geometry lectures completed by students 1982; letter from student requesting 'a lecture on lie groups' 25 April 1985, with ms notes on lie groups.
- C.99 - C.104 Lecture notes for course of eight summer-term lectures. Some sheets marked 'OLD'. 6 folders.
- C.105-C.112 'Geometry. 3rd Yr'.
- C.105 'Draft 3rd-year Geometry course' by Adams and J Peters; 'Draft Geometry Syllabus'.
- C.106 'Examples - P1 Geometry', set of duplicated ms sheets for geometry classes 9 October - 11 December 1967.
- C.107-C.112 'Geometry lecture notes'. 6 folders.

Lectures

- C.113-C.120 'Diff[erenti]al Analysis & Geometry'.
- C.113 Questionnaires on Adams's differential analysis and geometry lectures completed by third-year students 1979; duplicated ms course notes compiled by C B Thomas for 1988-89.
- C.114 Ms and duplicated typescript example sheets.
- C.115-C.119 'Diff[erenti]al Analysis and Geometry' lecture notes. 5 folders.
- C.120 Differential Analysis course notes.
- C.121-C.129 'D.G'.
- C.121 Two sets of completed questionnaires on Adams's differential analysis and geometry lectures. First set completed by third-year students 1985.
- C.122 Example sheets; students questions, requests for guidance etc.
- C.123-C.128 'Differential Analysis and Geometry' lecture notes. 6 folders.
- C.129 Miscellaneous notes.

Lectures

Homology

- C.130-C.133 'Homology Theory III'.
- C.130 Attendance list for Adams's third-year homology course, summer term 1963; 4pp ms draft 'What is homology theory good for?'; miscellaneous notes.
- C.131-C.133 'Homology theory' lecture notes. 3 folders.
- C.134-C.143 'Diploma course on generalised homology'.
- C.134-C.138 'Extraordinary Cohomology Theories' lecture notes. 5 folders.
- C.139,C.140 Lectures on $K^*(X)$
- C.139 Typescript notes for lectures 1-4.
- C.140 Typescript notes for lectures 5,6; ms lecture notes on $K^*(X)$.
- C.141-C.143 Miscellaneous lecture notes. 3 folders.

Homotopy

- C.144-C.151 'Homotopy Theory'.
- Lecture notes, latest reference 1961. 8 folders.

Lectures

- C.152 'III Homotopy Theory'.
Ms note of basic definitions etc., attendance sheet,
Adams's note re supervision of homotopy theory course
4 May 1977, etc.
- C.153-C.159 'Homotopy-theory'.
C.153 Course outline; lists of students for 1980 and 1981;
correspondence from R Luckwith re draft examination
questions 1976 and 1981; etc.
- C.154-C.159 'Homotopy Theory' lecture notes. 6 folders.
- C.160-C.163 'HOMOTOPY'.
C.160 Homotopy theory exercises and examination questions 1982
and 1983; lists of students 1982; etc.
- C.161-C.163 Lecture notes. 3 folders.
- C.164-C.167 'HOMOTOPY THEORY. ('83 version)'.
C.164 'Homotopy-Theory Exercises'; lists of students.
- C.165-C.167 Lecture notes. 3 folders.
- C.168-C.171 'Homotopy'.
C.168 List of students 1985; examples sheets; draft examination
questions, etc.

Lectures

- C.169-C.171 'Notes on Homotopy'. 3 folders.
- C.172 'Homotopy theory'.
Lecture notes on 'Toda brackets'.
- C.173-C.176 'Advanced Homotopy Prof. J F Adams'.
Lecture notes. 4 folders.
- C.177-C.183 'Advanced Homotopy Theory'.
Lecture notes. 7 folders.
- C.184-C.189 'Adv. Htpy'.
Lecture notes on 'Obstruction theory', 'Postnikov systems'
etc. 6 folders.
- C.190 Lecture notes, annotated 'Add to other file of notes on
Advanced htpy theory'.
- C.191-C.195 'Further homotopy'.

cont'd...

Lectures

- C.191 Ms draft and typescript Part III examination paper on further homotopy theory 1976; questionnaire on Adams's further homotopy theory course completed by third-year students 1976.
- C.192-C.195 'Further homotopy' lecture notes. 4 folders.
- C.196-C.199 'Calculating Homotopy Groups'.

'Lecture notes on calculating homotopy groups'; miscellaneous notes. 4 folders.
- C.200-C.207 'Stable Homotopy and Generalised Cohomology'.
- C.200 'Topology Diploma Courses Michaelmas Term 1970'; draft examination paper for Stable Homotopy Theory and Generalised Cohomology Theories, 1971; ms calculation (not in Adams's hand).
- C.201 Ms ?course outline.
- C.202-C.207 'Stable Homotopy and Generalised Cohomology' lecture notes. 6 folders.
- C.208-C.215 'Systematic Phenomena in p-primary Homotopy Theory'.
- C.208 Draft letter to Arunas, 25 February 1986, re 'Young idempotents'.
- C.209-C.215 'Systematic phenomena in Mod p Homotopy Theory' lecture notes. 7 folders.

Lectures

C.216-C.218 Untitled lecture notes beginning 'Introduction to localisation.
In homotopy theory, we have known for a long time that it is
sufficient to attack our problems one prime at a time'.
3 folders.

K-theory

C.219,C.220 'K-theory'.

Lecture notes. 2 folders.

C.221-C.223 'K-theory'.

Lecture notes. 3 folders.

C.224-C.230 'Algebraic K-theory'.

C.224 Example sheets; algebraic K-theory examination paper 1974.

C.225-C.230 'Algebraic K-theory' lecture notes. 6 folders.

Lie Groups

C.231-C.241 'Lie Groups'.

C.231 ?Introductory lecture notes.

C.232-C.241 'Lie Groups' lecture notes. 10 folders.

Lectures

- C.242-C.248 'Lie Groups II'.
- C.242 Ms example sheets; lie groups examination paper 28 May 1974; bibliography.
- C.243 List of students for Pt III class; etc.
- C.244-C.246 Lecture notes. 3 folders.
- C.247,C.248 'LIE GROUPS Lectures given in the University of Manchester, 1965, by J.F.Adams Notes by M.B.Mather'. 2 folders.

Representation Theory

- C.249-C.255 'Reptn Theory'.
- C.249 Questionnaires on Adams's representation theory lectures completed by third-year students 1976, with Adams's 'Analysis of Replies...'; typescript 'Questions on representation theory'.
- C.250-C.252 'Representation Theory' lecture notes. 3 folders.
- C.253 'Worked Examples...'; ms notes beginning 'Dirac group of 32 matrices'; ms notes on 'The theory of group representation'.
- C.254,C.255 Miscellaneous notes. 2 folders.

Lectures

- C.256-C.261 'R[epresentation] Theory'.
- C.256 Students questions and requests for guidance; example sheets, dated 'Mich[aelmas] 77'.
- C.257-C.259 'Lecture notes on Representation Theory'. 3 folders.
- C.260 Ms notes on Representation Theory'; ms notes 'For appendix'.
- C.261 Miscellaneous notes.
- C.262,C.263 'Rep Theory Examples, Hand-outs'.
- Ms and duplicated ms example sheets and hand-outs. 2 folders.

Topology

- C.264-C.270 'Topology II & III'.
- C.264-C.269 'Topology II' lecture notes, some on verso of 1963 Royal Society accounts. 6 folders.
- C.270 Continuation of the preceding on 'The Husenicz Isomorphism Theorem'.
- C.271,C.272 'Diploma Course on Alge[braic]. Topol'.
- Lecture notes. 2 folders.

Lectures

- C.273 'Reading List'.

'Reading list for algebraic topology' October 1958;
'Syllabus (for Research Students) of Algebraic Topology';
bibliography.
- C.274-C.283 'Algebraic Topology'.

C.274 Algebraic topology examination paper 1979; letter from
C R F Maunder 3 March 1980 re draft algebraic topology
examination paper; course outline; etc.
- C.275 Example sheets.
- C.276 Lists of students etc.
- C.277-C.282 Lecture notes. 6 folders.
- C.283 Miscellaneous notes.
- C.284-C.287 'Diploma Course'.

Lecture notes on algebraic topology. 4 folders.
- C.288-C.295 'Topics in Algebraic Topology'.

C.288 Correspondence with D S Kahn re the Kahn-Priddy Theorem,
January-March 1972. Includes 'Applications of the transfer
to stable homotopy theory' by Kahn and S B Priddy, 8pp
typescript, and Adams's ms note 'Peter May on KAHN-PRIDDY THM'
- C.289 Two duplicated ms calculations by Adams; ms note beginning
'Frank: Here is a complete calculation of $H_*(C_\infty S^0)$ '.

Lectures

- C.290-C.295 Lecture notes. 6 folders.
- C.296-C.301 'Part III Further Topics in Alge. Topol'.
- C.296 Circular letter re 'Part III Mathematical Tripos 1988';
course outlines for 'Algebraic Topology' and 'Further
Topics in Algebraic Topology'; example sheet; draft
examination questions; etc.
- C.297-C.301 Lecture notes. 5 folders.
- C.302 'TOPOL'.
- List of students for Advanced Algebraic Topology 1985;
example sheet; 4pp ms draft 'Eilenberg-Maclane spaces
and "killing homotopy groups"'; 7pp ms draft 'Classes
of abelian groups and localisation'.
- C.303-C.306 'Analytic Topology'.
- C.303 'Analytic Topology Problems' May 1957; 8pp ms draft
'Connection in the Plane and Sphere'; ms list of 'Requests'
?from students.
- C.304-C.306 'Analytic Topology' lecture notes. 3 folders.
- C.307-C.311 'Bundles'.

cont'd...

Lectures

- C.307 Topology of Bundles and Classifying Spaces course outline
1974-75; examination paper 1975; 'Examples on Characteristic
Classes'; questionnaires on Adams's topology of bundles
course completed by students 1974.
- C.308-C.311 'Topology of Bundles & Classifying Spaces' lecture notes.
4 folders.
- C.312-C.315 'Topology of Manifolds'.
- C.312,C.313 'Manifolds' lecture notes. 2 folders.
- C.314,C.315 Miscellaneous lecture notes. 2 folders.

Miscellaneous

- C.316-C.319 'Cartan Theory'.
Lecture notes. 4 folders.
- C.320-C.324 Lecture notes on CW-complexes. 5 folders.
- C.325-C.327 'The Projective Class Group: Lecture Notes'.
Lecture notes. 3 folders.

Lectures

- C.328-C.337 'Representations of the Classical Groups'.
Lecture notes (some on verso of 1962 example sheets).
10 folders.
- C.338-C.344 'Riemann Surfaces and Algebraic Curves'.
C.338 Notes on times of tutorials and syllabus, ms note on
'Algebra needed for Atiyah stuff', etc. Some on verso
of 1962 example sheets.
- C.339-C.344 'Riemann surfaces and algebraic curves' lecture notes.
6 folders.

CONFERENCES AND SEMINARS

Material re conferences and seminars attended by Adams in Britain and overseas: principally ms notes etc., on contributions by others and notes and drafts of his own contributions. With the exception of notebooks at C.345 and C.346 the material was found in Adams's folders with titles inscribed thereon. These titles are reproduced in the catalogue entries. Contents of bulky folders have been subdivided for ease of reference.

The material is presented in a chronological sequence with a little undated material at the end.

Lectures

Where applicable reference has been made to Adams's
List of Publications (A.2) in the form Bibliog. no. ...

- C.345 Hardback notebook inscribed inside front cover 'Seminar notes 1954/55, including Young Topologists' Conference at Oxford'. Used from both ends for notes and calculations. At back are loose notes.
- C.346 Hardback notebook inscribed inside front cover 'Seminar Notes 1955/56, including British Mathematical Colloquium.' Used from the front for notes and calculations. At the back are loose notes.
- C.347 'B M C [British Mathematical Colloquium] lecture'.

'The existence of division algebras, and related topological questions', 13pp ms, latest bibliographical reference 1955.
- C.348,C.349 'Seminar Notes etc'.

2 folders. A little correspondence at front is dated 1955 and 1956.
- C.350-C.353 'Bristol notes'.
- C.350 Untitled draft beginning 'I want to talk about the homology and cohomology theories for certain algebraic structures', 19pp ms.

Lectures

- C.351-C.353 Ms notes and calculations, some on verso of 1956
Cambridge college minutes. 3 folders.
- C.354 'Bundles'.

'Lecture on fibre-spaces for the Quintics', 7pp ms;
'Classification theorem', 9pp ms; ms notes, some on
verso of information sheet for colloquium to be held
in June 1956.
- C.355,C.356 'Seminar Notes - America'.

2 folders. Latest bibliographical reference 1957.
- C.357,C.358 'Seminars Given At Columbia. 1957/58'.

Ms notes. 2 folders.
- C.359-C.361 'Seminar Notes (1958/59/60)'.

3 folders. Includes notes on verso of programme for
Mathematische Arbeitstagung, Bonn, July 1959.
- C.362 -C.367 'Seminar Notes - 1959/60'.

6 folders. Includes 'Theory of representation and
characters' by Adams, 10pp ms.

Lectures

- C.368-C.370 'Seminar Notes 1960/61'.
- C.368 'Untitled draft beginning 'In this seminar I would like to give an account of some work which is to appear in the Proc. Camb. Phil. Soc. under the title "On Chern characters and the structure of the unitary group" ' (Bibliog. no.18) 8pp ms; 'S.P.Novikov on the cohomologies of the Steenrod algebra', 6pp typescript; typescript note on work of Sho-Kwan Chow.
- C.369,C.370 Ms notes. 2 folders.
- C.371-C.375 'Seminar notes (2nd trip to America, 1961)'.
5 folders.
- C.376,C.377 'Seminars on $K(x)$ '.
Rough ms drafts. 2 folders.
- C.378-C.384 'Seminar Notes M' [anches]ter '62'.
Ms notes and calculations, some on verso of duplicated typescript example sheets etc. 7 folders.
- C.385-C.390 'Aarhus & Stockholm'.
Material from Colloquium on Algebraic Topology, Aarhus, 1-10 August 1962. Adams spoke on 'Applications of the Grothendieck-Atiyah-Hirzebruch functor $K(x)$ ' (Bibliog. no.24).

Lectures

- C.385-C.388 Duplicated typescript texts of lectures. 4 folders.
- C.389 Ms notes on lectures.
- C.390 Miscellaneous duplicated typescript and ms material.
- C.391-C.393 'Seminar notes, Morse symposium & M [anchester] '63'.
- C.391 Abstracts of lectures, including Adams's 'On the groups J(X)', with ms notes on them.
- C.392,C.393 Ms notes. 2 folders.
- C.394-C.396 'Ideas for Seattle talks'.
- C.394 Invitation from N E Steenrod to deliver 'two expository lectures to the [Seattle Summer] Institute on the subject of cohomology operations', 6 May 1963.
- C.395,C.396 Ms notes and calculations. 2 folders.
- C.397 'Lecture Notes (Seattle)'.
Rough ms drafts of first, fourth and fifth lectures.
- C.398-C.404 'Seattle'.
Ms notes. 7 folders.

Lectures

- C.405-C.411 'Lecture Notes BMC [British Mathematical Colloquium] '63
& '63 - '64'.
7 folders.
- C.412 'Wood Seminar on Atiyah-Singer'.
Ms notes on 'Wood seminar' and 'Wood II'; miscellaneous
ms notes. Latest reference 1963/64.
- C.413-C.419 'Summer 64- '.
- C.413 'An exercise in Obstruction Theory November 1964'.
11pp duplicated typescript annotated 'JFA'.
- C.414-C.419 Ms notes. 6 folders.
- C.420,C.421 'Kuiper Seminar'.
- C.420 'The general linear group of Hilbert space is k - connected'
by N H Kuiper, June 1964.
- C.421 Rough draft of 'Seminar on Kuiper's work', etc.
- C.422-C.432 'Seminars'.
- C.422 Programme of Topology Conference, Oberwolfach, W Germany,
20-30 September 1965. Adams is not listed as a speaker.

Lectures

- C.423-C.432 Ms notes etc. The first page of notes is annotated 'Arbeitstagung '67'. 10 folders.
- C.433-C.439 'Seminar'.
Ms notes etc, latest bibliographical reference 1965.
7 folders.
- C.440,C.441 'Arbeitstagung '66'.
- C.440 'Arbeitstagung lectures of M. Atiyah - June 1965. The Euler Characteristic Theorem I', 4pp duplicated typescript; ms notes on Atiyah's lectures.
- C.441 Ms notes on other lectures.
- C.442,C.443 'Hattori-Stong Talk'.
- C.442 'The work of Stong and Hattori on Complex Cobordism', 2Opp ms. Latest bibliographical reference 1966.
- C.443 'Talk for Bonn', 3pp ms; ms notes.
- C.444-C.446 'International Geometry Symposium'.
Ms notes, latest reference 1966. 3 folders.

Lectures

- C.447 'Seminar on Quillen on Adams's Conjecture'.

'Quillen's work on approximating BU by BG', 5pp ms;
'Talk on Quillen', 2Opp ms, latest bibliographical
reference 1967; 'Talk on Quillen III', 1Opp ms.
- C.448 'Lectures given at Waterloo & Chicago. Easter 69'.

'Lecture for Waterloo', 14pp ms; 'Expository lect.
on Geom. & Homol', 11pp ms; 'General Notes'.
- C.449-C.452 'Notes, Chicago, Easter 69'.

Ms notes. 4 folders.
- C.453,C.454 'Bonn 1969'.

Ms notes. 2 folders.
- C.455-C.457 'AMS lecture Swinnerton-Dyer'.

Duplicated ms draft of 'Algebraic number theory by
H P F Swinnerton-Dyer', June 1969.
- C.455 Introduction; 'Part I - The Classical Theory'.
- C.456 'Part II - Valuations and their consequences';
'Part III - Abelian extensions of the rationals'.

Lectures

- C.457 'Part IV - Zeta functions and L-series'; 'Examples Sheet I'.
- C.458-C.466 'Seminars'.
- C.458 Pan American airline menus used on verso for Adams's ms calculations.
- C.459-C.464 Ms notes etc, latest reference March 1969. 6 folders.
- C.465,C.466 Ms notes on lectures by others 1968-69, not in Adams's hand. 2 folders.
- C.467,C.468 'Notes of lectures'.
2 folders. Latest reference 1969.
- C.469-C.473 'Seminars 1969/70'.
- C.469 'The j-homomorphism in bordism theory', 12pp duplicated ms not in Adams's hand.
- C.470-C.473 Ms notes. 4 folders.
- C.474,C.475 'Chicago, summer 1970'.
Ms notes. 2 folders.

Lectures

- C.476-C.479 'Seminars - Int'l Congress 1970'.
The material is re the Congres International des Mathematiciens, Nice, September 1970. Adams chaired a section on 'Topologie des varietes' and a seminar on algebraic topology.
- C.476 Correspondence re arrangements from E Michael and R H Bing 1968-69.
- C.477-C.479 Ms notes, some on verso of pages of Congress programme. 3 folders.
- C.480-C.486 'Seminars 1970/1971'.
- C.480 'Some comultiplications' by M G Barratt 1970, 2pp duplicated ms; 'On Γ -structures' by Barratt, 5pp typescript; 'On a theorem of D.S.Kahn's' by Barratt and P J Eccles, 5pp typescript; untitled 10pp typescript (paginated 2-11, title page missing).
- C.481 'Chapter I The Magic Exact Sequence' and 'Chapter II The functors Γ^+ , Γ^- ' by Barratt, 8pp duplicated ms.
- C.482 Three sets of Adams's ms notes annotated 'From: Seminars '71'.
- C.483-C.486 Ms notes etc. 4 folders.

Lectures

C.487-C.498 'Chicago Course Summer '71.'

This course of lectures by Adams on 'Stable Homotopy and Generalised Homology' was published by Chicago University Press in 1974 (Bibliog. no.49). Adams's notes are divided into seventeen chapters. The last three chapters have addenda.

C.487 Chapters 1, 2

C.488 Chapter 3

C.489 Chapter 4

C.490 Chapters 5, 6

C.491 Chapters 7, 8

C.492 Chapter 9

C.493 Chapter 10

C.494 Chapters 11-13

C.495 Chapter 14

C.496 Chapter 15 + Addendum

C.497 Chapter 16 + Addendum

C.498 Chapter 17 + Addendum

Lectures

- C.499-C.501 'Atiyah-Singer seminar'.

Ms draft and notes etc., latest bibliographical reference
1971. 3 folders.
- C.502-C.510 'Seminars '71-'74'.

Ms notes etc. 9 folders.
- C.511 'Talks at Oxford, June '72'.

'Programme for the Topology Symposium' (Adams is listed
as a speaker); ms notes annotated 'Out of Talks at Oxford,
June '62'.
- C.512-C.516 'ICM 1974'.

Ms notes; photocopied ms notes (not in Adams's hand),
some dated July and August 1974. 5 folders.
- C.517 'JHCW lecture'.

Adams was invited to give the London Mathematical Society's
first J H C Whitehead Lecture.

14pp ms draft of Whitehead Lecture with incomplete rough ms
draft of ?later lecture to the London Mathematical Society,
on verso of 1974 questionnaires.

Lectures

- C.518-C.529 'Seminars'.
- C.518-C.526 Ms notes, including those taken at 'Oxford Conference 1975' (C.521), and at London Mathematical Society (C.524).
9 folders.
- C.527,C.528 Programme of and ms notes on 'Mathematische Arbeitstagung', Bonn, June 1978. Adams spoke on 'Finite H-spaces and algebras over the Steenrod Algebra' (Bibliog. no.63).
- C.529 Ms notes, the first page annotated 'Cartan Do Starts Here', final page annotated 'Cartan Do Ends Here'.
- C.530,C.531 'Zurich Notes'.
- Programme of and ms notes on International Colloquium on Topology and Algebra, Zürich, 12-16 April 1977. Adams spoke on 'Maps between classifying spaces' or 'Finite H-spaces'.
2 folders.
- C.532-C.534 'Aarhus file'.
- C.532,C.533 Ms and duplicated ms notes on Algebraic Topology symposium, Aarhus, 7-12 August 1978. 2 folders.
- C.534 Ms poem in Adams's hand beginning 'My tale of Chicago begins with MacLane. His papers with Sammy showed a vigorous brain'. Written on verso of pages of Aarhus programme.
- C.535,C.536 'Helsinki file 1978'.
- Ms notes. 2 folders.

Lectures

- C.537-C.539 'Seminars '78-'.
Ms and duplicated ms notes. 3 folders.
- C.540, C.541 'Arcata talks'.
Ms notes, latest bibliographical reference 1978.
2 folders.
- C.542-C.545 'Talks'.
C.542, C.543 Programme of and ms notes on 'Mathematische
Arbeitstagung', Bonn, 6-12 June 1979. Adams spoke
on 'G. Segal's Burnside ring conjecture' (Bibliog.
no. 65). 2 folders.
- C.544, C.545 Ms notes. 2 folders.
- C.546-C.565 'Seminars 1979 - '
C.546-C.551 Ms notes, latest bibliographical reference 1980.
6 folders.
- C.552 Conference handbook for 'Mathematische Arbeitstagung',
Bonn, 12 - 18 June 1981. Adams did not deliver a lecture.
- C.553 Programme for 4th Topology Symposium, Edinburgh, 30 June -
2 July 1981.
- C.554 Ms notes on 4th Topology Symposium.

Lectures

- C.555 List of student participants at 'Topology Gathering [Cambridge]1981'; 'genealogia topologica' (a 'family tree' of eminent topologists).
- C.556-C.560 Ms notes, latest bibliographical reference 1981. 5 folders.
- C.561 Programme for Northwestern [University] Conference on Homotopy Theory, 22-26 March 1982; duplicated ms notes on lectures (not in Adams's hand).
- C.562-C.565 Ms notes, some (not in Adams's hand) dated 16 March 1982. 4 folders.
- C.566-C.569 'Notes from Durham'.
Ms notes, latest reference 1982. 4 folders.
- C.570-C.573 'Seminar Notes'.
Ms notes, latest bibliographical reference 1982. 4 folders.
- C.574-C.576 'Moore'.
Programme of and ms notes on Algebraic Topology and K-theory Conference in honour of John Moore's 60th birthday c 1983. 3 folders.

Lectures

C.577-C.579 'Bonn, NOTES'.

Programme of and ms notes on 'Mathematische Arbeitstagung',
Bonn, 15-22 June 1984. 3 folders.

C.580,C.581 'SEMINARS MINNEAPOLIS'

Programme of and ms notes on conference, Institute for
Mathematics and its Applications, University of Minnesota,
23-27 July 1984. Adams spoke on 'G-homology theories'.
2 folders.

C.582 'Oxford Talk'.

Rough ms draft of Adams's lecture on the recent work of
M J Hopkins and colleagues, latest bibliographical
reference 1984.

C.583-C.601 'Seminars 1985'.

C.583,C.584 Programme of and ms notes on Northwestern University
Conference on Group Cohomology and its Applications,
18-22 March 1985. Adams spoke on 'Maybe elementary
abelian p-groups are just as good as tori?'.
2 folders.

C.585

Programme of and ms notes on West Coast Topology
Symposium Stanford University, 25-26 March 1985.
Adams spoke on 'The Adams spectral sequence in equivariant
groups'.

Lectures

- C.586 Programme of and ms notes on conference on algebraic topology, Palaiseau, France, 13 - 15 June 1985.
- C.587,C.588 Ms notes annotated on first page 'Start Newfoundland' and on last page 'End Newfoundland'. 2 folders.
- C.589 Adams's ms notes for 'My Newfoundland talk'. The notes are on a sheet of cardboard from the back of a notepad.
- C.590,C.591 Ms notes annotated on first page 'Start Warsaw' and on last page 'End of Warsaw'. 2 folders.
- C.592-C.601 Ms and duplicated ms notes. 10 folders.
- C.602 'April 1st Seminar'.
Ms draft of ?spoof press release 'New N.S.F. grants', dated 1 April 1985; untitled draft of Adams's lecture.
- C.603-C.605 'Notes of Barcelona 1986'.
Programme of and ms notes on '1986 BCAT', Institut d'Estudis Catalans, Barcelona, 2 - 8 April. Adams spoke on 'New proofs of two theorems of Jean Lannes'. 3 folders.
- C.606,C.607 'Bonn 1986'.
- C.606 Conference handbook of 26th Mathematische Arbeitstagung, Bonn, 13 - 20 June.

Lectures

- C.607 Ms and duplicated ms notes.
- C.608,C.609 'New Seminars'.
Ms notes, including notes on 'Simon Donaldson at LMS,
21 Feb '86,17.00-18.00 Homology and Moduli Spaces'.
2 folders.
- C.610-C.612 'Congress Talks'.
Ms notes, latest bibliographical reference 1986.
3 folders.
- C.613-C.621 'Seminars 1986 -'.
C.613 Photocopied ms notes, not in Adams's hand, October and
November 1986; photocopied ms notes of Talks on 'Group
characters and complex-oriented theories' by Nick K[?]
delivered at Warwick 17 January 1987; and on 'Brownian
motion and the Riemann ζ function' by D.Williams
delivered at Number Theory Seminar, Cambridge, 10 May
1988; etc.
- C.614-C.616 Programme of and ms notes on International Conference on
Homotopy Theory and Related Topics, Kinosaki, Japan,
19 - 24 August ?1988. Adams gave a 'Survey on homotopy
theory and Toda's works'. 3 folders.
- C.617-C.621 Ms notes. 5 folders.

Lectures

- C.622-C.625 'D Williams Seminar'.

Ms, photocopied ms and typescript material re Williams's proposed 'seminar/workshop called Connections on differential geometry and its relation to probability and other subjects', 1988. 4 folders.
- C.626-C.633 'Seminars Given'.

Miscellaneous ms drafts of lectures found in Adams's folder so inscribed. Mostly undated, retained in original order.
- C.626 'Topology of H-spaces', Cambridge 1959, 7pp; 'Talk on Fibre-Bundles for the Quintics', 7pp; 'On Loop Spaces', 11pp; 'Seminar for Manchester' on the analogy between topological spaces and chain complexes, 8pp.
- C.627 'Oxford Seminar' on cohomology operations of higher kinds, 6pp; 'Report on C.T.C.Wall's work on the Cobordism Algebra Ω ', 6pp (see Bibliog. no.13; 'No more division algebras?', 10pp; plan of 'Seminar for Bonn. Heidelberg. Strasbourg', 1p.
- C.628 'Hatfield Seminar' on applying topological methods to analysis, 11pp; 'Cohomology operations', 11pp; 'Fundamental notions of manifolds', 9pp.
- C.629 Comments on lectures at 'Bonn' [?Mathematische Arbeitstagung], 9pp; 'Mahowald's Result on the J-homomorphism', 7pp; 'E.H.Brown's work on Cohomology Theories', 14pp.
- C.630 'Talk for Warwick', 10pp; 'Atiyah's work on the Künneth theorem for K_c^* ', 6pp; 'Talk to student teachers' on pure mathematics, 14pp.

Lectures

- C.631 'Seminar: K-theory of infinite complexes', 16pp;
'Seminar on Atiyah-Singer', 8pp; 'More about the
e-invariant', 13pp.
- C.632 'Cobordism', 14pp; 'Paris Talk (Draft 1)' on the
K-theory of Grothendieck-Atiyah-Hirzebruch (in French),
15pp; 'A new method in Algebraic Topology', 10pp.
- C.633 'Work of Brönder Peterson & Liulevicius, 21pp;
'Seminar' on some of the lectures at the Morse symposium
(1963, see C.391-C.393), 9pp; 'Kerraire on higher-
dimensional knots', 4pp.
- C.634 'Ideas for Seminars'.

Miscellaneous sets of ms notes on possible subjects
and speakers for symposia, various dates.
- Undated.
- C.635-C.637 'Clifford Modules Ms'.
- C.635 Rough ms draft 'Clifford Modules, Part II'.
- C.636,C.637 Ms drafts of seminars on A.B.S. (Atiyah-Bott-Shapiro),
continuing the preceding. 2 folders.
- C.638 'Coates-type lecture'.

Rough ms draft.

Lectures

- C.639 'Course on Mike Hopkins'.
Two rough ms drafts on work of M G Hopkins (the second is in French).
- C.640 'Lectures to Swedish course'.
Rough ms drafts of lectures on 'Lie groups' and 'A-S [Atiyah-Singer] index theorem'.
- C.641,C.642 'Lectures to Training College lecturers'.
Rough ms drafts of three lectures. 2 folders.
- C.643 'Vector fields on spheres'.
Rough ms draft.
- C.644-C.646 'Weil Seminar'.
C.644 Rough ms draft of 'Seminar' on perverted naturality.
C.645 Rough ms drafts of Atiyah-Hirzebruch's Philosophy of Riemann-Roch-Type Theorems.
- C.646 Miscellaneous drafts and notes.

Lectures

'OTHER PEOPLE'S LECTURES'

Material found in two filing cabinet drawers so labelled. The material is chiefly ms notes on lectures found in Adams's folders with the name of the lecturer and usually the subject of the lecture/s inscribed thereon. These inscriptions are reproduced in the catalogue entries and form the basis for the arrangement of the material in an alphabetical sequence by lecturer. Contents of bulky folders have been subdivided for ease of reference. A little miscellaneous material is presented at the end of the sequence.

The bulk of the material is undated but a few of the sets of notes were taken by Adams as an undergraduate in 1949. It is probable much of the rest dates from the early 1950s.

- C.647,C.648 'Atiyah. Algebraic F [unctio]ns & Riemann Surfaces'.
2 folders.
- C.649 'Atiyah-Zeeman Seminar on stacks'.
Duplicated typescript text with Adams's ms annotation.
- C.650 'Prof. Besicovitch. Non-Absolute Integration.'

Lectures

- C.651 'Besicovitch Point Sets'.
- C.652 'Besicovitch Research Problems'.
- C.653 'Bryan Birch Zeta f[unctio]ns'.
Photocopied ms notes (not in Adams's hand).
- C.654 'Burkill Real-Variable'.
- C.655 'Series & Complex V[aria]ble. Burkill'.
- C.656,C.657 'Burkill - Transfinite Nos.'
2 folders.
- C.658 'Miss Cartwright. Complex V[aria]ble'.
- C.659,C.660 'Cassels & Smithies Linear Spaces'.
- C.659 Notes on Cassels.

Lectures

- C.660 Notes on Smithies.
- C.661,C.662 'Miss Edmonds Fourier Series'.
2 folders.
- C.663,C.664 'Miss Grimshaw. Absolute Integration'.
2 folders.
- C.665-C.667 'P.Hall Abelian Groups'.
3 folders.
- C.668 'Mr Hall - Groups'.
- C.669 'P. Hall Topics In Group Theory'.
- C.670 'Hall Universal Algebra'.
- C.671 'Hilton Homotopy Theory'.

Lectures

- C.672 'Haselgrove Analytic Theory of Nos.'
- C.673 'Mr Ingham - Complex Variable'.
- C.674 'Ingham Divergent Series'.
- C.675 'Mr Ingham - Lebesgue Integration'.
- C.676,C.677 'Ingham Theory of Numbers'.
2 folders.
- C.678 'Little Seminar'.
- C.679 'Littlewood Theory of Functions'.
- C.680 'Littlewood's Research Problems'.
Duplicated ms problem sheets.
- C.681 'Mahowald Seminar'.

Lectures

- C.682,C.683 'Analysis I Dr Rankine'.
Notes taken from 10 October 1949. 2 folders.
- C.684 'Mr Rees Abstract Algebra'.
- C.685,C.686 'Smithies. Integral equations'
2 folders. Some notes are on verso of 'University of Natal
Maths IV, Astronomy Tutorial' papers dated 11 April 1949.
- C.687,C.688 'Linear algebra Dr Smithies'.
Notes taken from October 1949. 2 folders.
- C.689,C.690 'Steen Differential equations'.
2 folders.
- C.691 'Steen Distributions
- C.692-C.694 'Stein F[unctio]ns of Several Complex V[aria]bles'.
3 folders.

Lectures

- C.695 'Swinnerton-Dyer: The Riemann Hypothesis in Function
Fields'.

Duplicated typescript text.
- C.696 'Taunt - Groups'.
- C.697-C.699 'Mr Ward Topology'.

3 folders.
- C.700 'Mr White. Diff[erentia]l Geom[etry]'.
- C.701 'JCHW [Whitehead] S-theory'.
- C.702 'Wylie Alge.Top. II'.
- C.703 'Wylie Combinatorial Topology'.
- C.704 'Geometry I Mr Wylie (& Todd)'.

Notes taken from 11 October 1949.

Lectures

Miscellaneous

- C.705 'Supervision, etc'.
Notes taken at tutorials from 12 October 1949.
- C.706 'Edsac'.
Notes on operation and programming of Edsac computer,
c. 1951.
- C.707 'Several complex variables Seminar'.
- C.708 Miscellaneous ms notes.

SECTION D

PUBLICATIONS

D.1 - D.15

Where applicable reference has been made to Adams's List of Publications (A.2) in the form Bibliog. no. ...

- D.1 'On the chain algebra of a loop space', with P J Hilton.
Bibliog. no.5 (1956).
44pp typescript.
- D.2,D.3 'The cobar construction'. Essay submitted for the Adams Prize 31 December 1956.
53pp ms. 2 folders.
- D.4,D.5 'On the non-existence of elements of Hopf invariant one mod p'. Bibliog. no.10 (1958).
D.4 21pp ms + references.
D.5 13pp typescript.
- D.6 'On the anticommutative law and the Jacobi identity for stable Toda Brackets', with R M F Moss. Not published but written c.1958-61.
8pp ms.
- D.7 'On the non-existence of elements of Hopf invariant one'.
Bibliog.no.14 (1960).
Letter from N E Steenrod, Editor of Annals of Mathematics with suggestions for expanding Adams's draft.

Publications

- D.8-D.10 'Algebraic Topology, Homotopy Theory'.

In January 1967 Adams was invited to edit a reprint collection in a series for graduate students to be published by Worth Publishers, Inc. Adams accepted but the project was later abandoned.

Editorial correspondence 1967-68. 3 folders.
- D.11 'Lectures on Lie Groups'. Bibliog. no.38 (1969).

Letter from publishers, 22 November 1968.

'Algebraic Topology: a student's guide'. Bibliog.
no.44 (1972).

Correspondence with publishers, July 1970.
- D.12 ' λ -rings and Ψ -operations'. Nd.

4pp typescript.
- D.13 'Book'. Contents of Adams's folder so inscribed: ms notes outlining topics to be covered by projected book. Nd.
- D.14, D.15 'Offprints Dist. List'. Contents of Adams's folder so inscribed divided into two for ease of reference: lists of those receiving off-prints of Adams's publications.
- D.14 Index cards.
- D.15 Miscellaneous typescript and ms lists.

SECTION E

CORRESPONDENCE

E.1 - E.299

There are virtually no extended exchanges of correspondence, the great majority of the letters are incoming, with very few carbons of Adams's replies. The content is essentially mathematical; chiefly requests for Adams's advice or comments on specific problems, reflecting Adams's high standing in his field. Of special interest is the extensive correspondence from M F (later Sir Michael) Atiyah, M G Barratt, P J Hilton, I M James, A Liulevicius, S MacLane and C W Wilkerson.

Where applicable reference has been made to Adams's List of Publications (A.2) in the form Bibliog. no. ...

The material is arranged as follows:

- | | |
|--------------|---|
| E. 1 - E.272 | GENERAL SCIENTIFIC CORRESPONDENCE.
In alphabetical order. |
| E.273- E.299 | SHORTER SCIENTIFIC CORRESPONDENCE. In
chronological order. |

Correspondence

GENERAL SCIENTIFIC CORRESPONDENCE

- | | | |
|----------|---|------------------|
| E.1 | Adem, J | 1960 |
| | Papers on secondary operations. | |
| E.2,E.3 | Anderson, D W | 1963-71, nd |
| E.2 | 1963-65. | |
| E.3 | 1968-71, nd. Letter of 1 April 1971 is <u>re</u> '"Hurewicz type of spectral sequence', 7pp. | |
| E.4-E.12 | Atiyah, M F | 1961-88, nd |
| | Atiyah and Adams were contemporaries as undergraduate and postgraduate students at Cambridge. | |
| E.4 | 1961. Comments on draft of Adams's paper 'Applications of the Grothendieck-Atiyah-Hirzebruch functor $K(X)$ ' (<u>Bibliog.no.24</u>). | |
| E.5 | 1962. | |
| E.6 | 1963. Includes comments on draft of Adams's paper 'On the groups $J(X)-I$ ' (<u>Bibliog.no.25</u>). | |
| E.7 | 1964-66. Includes correspondence <u>re</u> joint paper with Atiyah 'K-theory and the Hopf invariant' (<u>Bibliog.no.34</u>). | |
| E.8 | 1966-71. | |
| E.9 | 1969-73. | |
| E.10 | 1976-80. Arrangements for Atiyah's seminars in Cambridge. | |
| E.11 | 1978-88. | |
| E.12 | Nd. | |
| E.13 | Aubry, M | 1977-80 |
| E.14 | Baas, N A | 1968-74, 1982-83 |
| | 1968-69 correspondence chiefly <u>re</u> the Adams spectral sequence. | |

Correspondence

E.15-E.20	Barratt, M G	1960-76, nd
E.15	1960.	
E.16	1961-62. Chiefly <u>re</u> periodicity tables.	
E.17	1961, 1964.	
E.18	1963-64.	
E.19	1967-76, nd.	
E.20	1967,1970.	
E.21	Bass, H	1972,1983
	Visit to Cambridge 1972; invitation to visit Columbia University 1983.	
E.22	Berrick, A J	1980-87
	Chiefly <u>re</u> appointments.	
E.23	Boardman, J M	various dates 1964-76
	Includes 3pp ms notes on spectral sequence, 1964.	
E.24	Bott, R	1959-62,1968,1969
E.25	Browder, W	various dates 1967-79, nd
	Includes correspondence <u>re</u> refereeing for <u>Annals of Mathematics</u> .	
E.26,E.27	Brown, E H	various dates 1965-83
E.26	1965-76. Includes 5pp photocopied ms note on 'Properties of B(K)', 1976.	
E.27	1980-83.	

Correspondence

- E.43 Clarke, F W 1974-77
Includes correspondence re joint paper with Clarke
'Stable operations on complex K-theory' (Bibliog.
no.59).
- E.44 Cockcroft, W H various dates 1962-70
- E.45 Cohen, F R various dates 1975-87
- E.46 Cohen, J M 1968,1972,1983
- E.47 Cohen, R L 1979-88
1981-82 correspondence re 'the Immersion conjecture'.
- E.48 Cohn, P M 1966,1976,1979-82
- E.49 Davis, D M 1972-82
- E.50 Deleanu, A 1971-74,1980,1983
1973 correspondence chiefly re 'the existence of
the Adams completion'.
- E.51 Delzell, C N 1981-82
Drafts sent to Adams for comment.
- E.52-E.58 Dibag, I 1974-87
- E.52 1974.
- E.53 1975 Feb, May.
- E.54 1975 Nov, Dec.

Correspondence

E.67-E.70	Friedlander, E M	1974-85
E.67	1974.	
E.68	1975.	
E.69	1976-78. Chiefly <u>re</u> Friedlander's work on the 'stable Adams's conjecture', visits.	
E.70	1980-86.	
E.71	Fröhlich, A	1969,1980,1984
E.72	Gandy, R O	1976,1978
E.73	Gray, B	1966-83, nd
E.74,E.75	Greenlees, J P C	1986-88
E.74	1986. Includes 8pp ms draft on 'a fully equiv-ariant version of Lin's theorem' by Greenlees sent to Adams for comment.	
E.75	1987,1988. Correspondence 1987 chiefly <u>re</u> b_* UCTs.	
E.76	Gugenheim, V K A M	various dates 1960-76, nd
E.77	Hazewinkel, M	1974-75
E.78	Heller, A	1969-74
E.79	Henn, H-W	1980-83,1986

Correspondence

- E.80-E.85 Hilton, P J 1955-84, nd
- E.80 1955-63. Includes 'Proposal for collaboration between members of the Department of Mathematics of Cornell University and European Mathematicians', 1963.
- E.81 1964,1967-71.
- E.82 1970.
- E.83 1972-76.
- E.84 1977-84. Includes correspondence re participation at International Congress of Mathematics, Warsaw, ?1982.
- E.85 1984. Includes 15pp typescript draft obituary of M H A Newman, Adams's predecessor as Fielden Professor of Mathematics at Manchester University.
- E.86 Hirsch, G C 1958,1964
- Includes 11pp ms draft beginning 'Consider a fibre space E , base B , the fibre F being a $K(M,n)$ ' by Hirsch sent to Adams for comment,1958.
- E.87,E.88 Hirzebruch, F 1959-75,1984
- E.87 1959-69. Chiefly re conferences.
- E.88 1971-75, 1984.
- E.89,E.90 Hoffman, P N 1966-77,1982
- E.89 1966-73. Correspondence 1966-67 chiefly re Hoffman's PhD thesis.
- E.90 1974-77,1982. Chiefly re sabbatical year in UK, 1975-76.

Correspondence

- E.91-E.93 Hubbuck, J R 1966-78, 1982-88, nd.
- E.91 1966-70. Includes 1Opp typescript draft 'The type of an associative H-space' by Hubbuck sent to Adams for comment.
- E.92 1972-78.
- E.93 1982-88, nd.
-
- E.94 Hunton, J R 1986-88
- Hunton was a PhD student of Adams's.
-
- E.95,E.96 Husemoller, D 1964-71, 1979
- E.95 1964-68. Chiefly re visits.
- E.96 1969-71, 1979. Chiefly re visits.
-
- E.97,E.98 Jackowski, S 1983-87
- The correspondence chiefly relates to work towards two 1988 joint publications by Adams, Jackowski, J-P Haeberly and J P May 'A generalisation of the Segal conjecture' (Bibliog.no.78) and 'A generalisation of the Atiyah-Segal completion theorem' (Bibliog.no.79).
- E.97 1983-84.
- E.98 1984-87.
-
- E.99-E.104 James, I M 1956-86
- E.99 1956-60.

Correspondence

- E.100 1961-66. Visits, papers for Topology, examining etc.
- E.101 1967,1968. Correspondence chiefly re tape-recorded lectures by Adams. Also includes 7pp typescript draft 'On sphere-bundles' by James sent to Adams for comment.
- E.102 1969-75. Chiefly re visits, participation at conferences.
- E.103 1976-79.
- E.104 1980-86.
- E.105 Kaplansky, I 1973-75,1979
Correspondence 1973-74 re publication of Stable homotopy and generalised homology by Chicago University Press (Bibliog.no.49); 1975 Newsletters on GLA's (graded Lie algebras) by Kaplansky; 1979 poem in honour of S MacLane.
- E.106 Karoubi, M various dates 1966-75
Correspondence 1974-75 re Karoubi's draft book on K-theory.
- E.107 Kassar, R G 1976-79
- E.108,E.109 Kelly, G M various dates 1962-88
- E.108 1962-64. Includes correspondence re homology of function spaces.
- E.109 1971-88.

Correspondence

- E.110,E.111 Kendall, D G 1982,1984,1988
Chiefly correspondence and notes re Kendall's work on 'the homology etc of shape-spaces for use in statistics and probability'.
- E.110 1982.
- E.111 1984,1988
- E.112 Kervaire, M A various dates 1958-67
- E.113,E.114 Kochman, S O 1975-81
- E.113 1975-77.
- E.114 1979-81.
- E.115-E.117 Kono, A 1985-86
Kono worked on exceptional Lie groups in Cambridge April-June 1986.
- E.115 Correspondence re arrangements to work in Cambridge, etc 1985-86.
- E.116,E.117 Miscellaneous notes and calculations by Kono and Adams. 2 folders.
- E.118,E.119 Kreisel, G various dates 1976-85
- E.118 1976-78.
- E.119 1981, 1982, 1985.

Correspondence

- E.120-E.122 Kuhn, N J 1981,1985-88
- E.120 1981. Correspondence re Kuhn's work on 'a conjecture of G W Whitehead' and visit to Cambridge.
- E.121 1985. Includes 10pp photocopied ms draft on 'Morava K-theories of some classifying spaces' by Kuhn.
- E.122 1986-88. Includes correspondence re joint work (published as 'Atomic spaces and spectra', Bibliog. no.80).
- E.123 Lam, K Y various dates 1970-84
- E.124-E.126 Landweber, P various dates 1967-86
- E.124 1967,1970-73. Includes Landweber's May 1973 comments on Adams's 1971 Chicago Lecture Notes and correspondence re visit to Cambridge.
- E.125 1974. Re visit to Cambridge
- E.126 1984,1986. Includes 19pp photocopied ms seminar talk 'Dickson Invariants and Prime Ideas Invariant under Steenrod Operations' by Landweber, March 1984.
- E.127 Lang, S 1969-74
- E.128 Lannes, J 1984-86
- Includes 8pp photocopied ms draft 'Cohomology of groups and functions spaces' by Lannes, 1986.

Correspondence

- E.138-E.147 Liulevicius, A 1960-88
- E.138 1960-65. Correspondence 1960 re work on Browder's Theorem.
- E.139 1966-67. Correspondence 9-30 November 1967 covered Liulevicius's 'daily instalments of the translation of Novikov' sent to Adams.
- E.140 1968-69. Letter of 25 May 1969 encloses 11pp typescript 'write-up on the Novikov algebra' by Liulevicius sent to Adams for comment.
- E.141 1970-71. Correspondence 1970 re visit to Chicago and subsequent preparation of texts of Adams's lectures for circulation.
- E.142 1972-73.
- E.143 1974-75.
- E.144 1976. Includes 11pp photocopied ms notes on a conjecture on G-homotopy types of linear actions on CP^n sent to Adams for comment 11 February, and 7pp photocopied ms 'UC University of Chicago Topology Seminar. Representation rings of S_n - a Hopf algebra approach'. 20 October.
- E.145 1977-79.
- E.146 1980-83.
- E.147 1986, 1988.

Correspondence

E.171 1983.

E.172 1984-86.

E.173 Milnor, J W various dates 1957-77

E.174 Mimura, M 1966,1973-76

E.175 Mislin, G 1973-74
Visit; construction of 'exotic maps $BG \rightarrow BG$ '.

E.176,E.177 Morava, J J 1979,1986-87,nd.

E.176 1979, 1986-87.

E.177 Nd.

E.178 Moss, R M F various dates 1964-75, nd.
Correspondence 1964-66 re Moss's PhD thesis.

E.179-E.181 Neisendorfer, J A 1979-80,1986, nd

E.179 1979-80, 1986.

E.180,E.181 Nd. 2 folders.

E.182 Novikov, S P 1968-69
Correspondence in Russian (three letters have ms translations into English).

Correspondence

- E.194-E.196 Ravenel, D C 1973-83
- E.194 1973-77.
- E.195 1979. Re visit to Cambridge.
- E.196 1980-83.
- E.197 Ray, N various dates 1972-88, nd
Ray was a PhD student of Adams's at Manchester University.
- E.198 Rector, D 1976,1981-82
Chiefly correspondence 1981 re abelian subgroups and tori.
- E.199 Rees, E 1974,1980-83
- E.200 Rose, W 1985-88
- E.201 Rourke, C P 1971-72,1977
Chiefly correspondence 1977 re Adams's criticisms of 'Lecture Notes' by Rourke and B J Sanderson. See also E.203.
- E.202 Samelson, H 1961,1966,1978
Correspondence 1961 chiefly re visit to Stanford University.
- E.203 Sanderson, B J various dates 1972-77, nd

Correspondence

E.204-E.206	Segal, G	1969-84, nd
E.204	1969-73.	
E.205	1975-78.	
E.206	1980-84, nd. Includes exchange November 1981 <u>re</u> conjectures in stable homotopy theory.	
E.207	Serre, J	various dates 1958-87
E.208	Shaw, R	1986-88
E.209	Shih, W	1964-67,1981
E.210	Siebenmann, L	various dates 1971-85
E.211,E.212	Singer, W M	1980-86
E.211	1980. Includes correspondence <u>re</u> possible joint paper.	
E.212	1981-86.	
E.213-E.216	Smith, L	1968-85
E.213	1968.	
E.214	1969.	
E.215	1970-71.	
E.216	1973-85.	

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E.228	Stong, R E	various dates 1967-88
E.229	Sutherland, W A	various dates 1962-80, nd
E.230	Tangora, M C	1969,1974,1976 Chiefly <u>re</u> visit to Manchester 1969-70.
E.231-E.234	Thomas, C B	1969-71,1974-85
E.231		1969-71.
E.232		1974-76.
E.233		1977-79.
E.234		1980-85.
E.235	Thomas, P E	1962,1967,1975
E.236	Tits, J	1973,1985 Correspondence 1973 <u>re</u> lie groups
E.237	Toda, H	1961,1968-70, nd
E.238,E.239	tom Dieck, T	various dates 1967-86
E.238		1967-86. Includes 9pp ms 'results on power operations in cobordism theories' sent to Adams May 1967.
E.239		1981.

Correspondence

- E.254 1982-85. Includes report on work since visit to Cambridge 1982.
- E.255 1986 May, Sept. Includes 14pp photocopied ms draft 'On the mapping space map (BG,BH)...' sent to Adams for comment.
- E.256 1986 Dec. 28pp photocopied ms draft 'A remark on maps between classifying spaces of compact Lie groups' sent to Adams for comment.
- E.257 1987, 1988 Jan-Apr.
- E.258 1988 May, June. Re work towards joint paper 'Maps between p-completed classifying spaces' (Bibliog. no.81).
- E.259 1988 July-Sept. Re joint paper.
- E.260 1988 Oct. Re joint paper.
- E.261 1988 Dec. Includes draft paper by Wojtkowiak.
- E.262 Wood, R M W various dates 1984-88,nd
Chiefly re work on the Peterson conjecture.
- E.263 Yagita, N various dates 1980-86
- E.264-E.269 Zachariou, A 1966-77,1980
- E.264 1966-67. Chiefly re work on generalised Cartan formula.
- E.265 1968. Chiefly re Zachariou's PhD thesis.
- E.266 1969-70.

Correspondence

E.267	1971.	Chiefly <u>re</u> projects on cohomology.	
E.268	1972.		
E.269	1974-77, 1980.		
E.270	Zahler, R S		1969-74
E.271,E.272	Zeeman, E C		various dates 1958-88
E.271	1958-75.		
E.272	1981-88.		

Correspondence

SHORTER SCIENTIFIC CORRESPONDENCE

E.273	1954-59	E.287	1979-80
E.274	1960-62	E.288	1981
E.275	1963	E.289	1982
E.276	1964-66	E.290	1982 July
E.277	1967-68	E.291	1982-83
E.278	1969-70	E.292	1983
E.279	1969-75	E.293	1984
E.280	1971-72	E.294	1985
E.281	1973-74	E.295	1986
E.282	1975	E.296	1986-88
E.283	1976	E.297	1987-88, nd
E.284	1976-79	E.298	Nd (1)
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