

P.025 Personal Archives of Keith Edward Bullen (1906-1976) Professor of Applied Mathematics

Date Range: 1906-1976

Quantity: 6.16 *shelf metres*

Accessions: 1/25;1/27;1/108;1/131;1092.

Administrative History:

Keith Edward Bullen was born in Auckland, New Zealand, on 29 June 1906. He was educated at Bayfield School, Auckland Grammar School, and Auckland University College, where he graduated BA in 1926, MA in 1928, and BSc in 1930. He then pursued post graduate studies at the University of Cambridge, entering St. John's College, where he gained a PhD in 1933, and later, a ScD in 1946. He married Florence Mary Pressley in Auckland on 15 May, 1935.

From 1926 to 1927, Bullen was on the staff of Auckland Grammar School. From 1928 to 1931, he was Lecturer in Mathematics at Auckland University College, and from 1934 to 1946, Senior Lecturer in Mathematics at the University of Melbourne. He was appointed to the Chair of Applied Mathematics at the University of Sydney in 1946, retiring in 1971.

Honours and awards included President of the International Association of Seismology and Physics of the Interior of the Earth, Vice President of the International Union of Geodesy and Geophysics, Chairman of the Australian Committee for the International Geophysical year. He was also a Fellow of the Royal Astronomical Society, Fellow of the Royal Society of London, Foundation Fellow of the Australian Academy of Sciences, Pontifical Academician, foreign associate of the US National Academy of Sciences, and Honorary Foreign member of the American Academy of Arts and Sciences. He was awarded a special MA degree from the University of Melbourne, and Honorary Degrees of Doctor of Science from both the University of New Zealand, and the University of Sydney.

His supervisor during his Cambridge days was Harold Jeffreys, who subsequently became a life long friend. Together, they published earthquake travel-time tables of greater accuracy than had hitherto been the case. This work was first published in 1935, and re-published in 1940, following further research. In 1932, Bullen visited Europe and the then Soviet Union.

Much of Bullen's later work included substantiating theories of the Earth's solid inner core. He also advocated the synchronisation of nuclear explosions and seismological measurements, in order to study the resulting earthquake waves with greater accuracy.

Bullen produced three major works, "An Introduction to the Theory of Seismology", (1947), "An Introduction to the Theory of Mechanics", (1949), and "The Earth's Density", (1975). He also produced some 300 research articles. He continued to research in his field after retirement, and also taught at the Seismological Institute in Tokyo, and at the University of British Columbia in Canada.

He died in Auckland on 23 September, 1976.

Related Records: G3/158, Personnel File.

P.025 Keith Edward Bullen

Inventory of Series

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2	Research Papers	1938	1975
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5	Detonations - Scripts and Press Cuttings	1955	1973
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P.025 Keith Edward Bullen

Creating Agency: Keith Edward Bullen

Previous Custodian: Keith E Bullen; Mrs Mary Bullen

Series: 1 General Correspondence.

Date Range: 1932 - 1976

Accessions: 1/25; 1/108

Quantity: 0.25

Item List: no

Series Description:

A large part of this correspondence was with Harold Jeffreys FRS, a geophysicist and mathematician, and authority on the interior of the earth. Jeffreys also held the Plumian Chair of Astronomy and Experimental Philosophy at University of Cambridge, and was Bullen's supervisor at St. John's College, Cambridge. There are also a small number of letters written by Bertha Swirles Jeffreys, theoretical physicist and Fellow of Girton College.

Other correspondents include B. Gutenberg, H.G. Forder, R.A. Eggleton, R.A. Haddon, W.M. Elsasser, and I. Lehmann. The series also includes correspondence with editors regarding Bullen's various publications, and copies of reviews of his published works.

Access: Open
Custody: University of Sydney
Copyright: Bullen's own letters to the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: Keith Edward Bullen

Previous Custodian: Keith E Bullen; Mrs Mary Bullen

Series: 2 Research Papers

Date Range: 1938 - 1975

Accessions: 1/25; 1/108

Quantity: 0.15

Item List: no

Series Description:

This series consists of working papers, manuscript material, and typescript records relating to Bullens work in seismology and on the core of the planets Earth, and other planets, especially the Jovian planets. A large section of this series relates to Bullens book, "The Earths Density", published by Chapman and Hall in 1975.

Access: Open
Custody: University of Sydney
Copyright: Bullens papers to the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 3 Research Addresses

Date Range: 1934 - 1975

Accessions: 1/25;1/108;1/164

Quantity: 0.11

Item List:

Series Description:

The series includes addresses given at scientific conferences and gatherings, and in radio broadcasts in Australia and overseas. Also some related correspondence and printed matter, and copies of published addresses.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens papers to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 4 Nuclear Detonations - Correspondence

Date Range: 1948 - 1973

Accessions: 1/25;1/108

Quantity: 0.08

Item List:

Series Description:

This series consists of correspondence relating to nuclear detonations and seismological measurements. A large component of the correspondence relates to the nuclear detonations at Maralinga in 1956. Other correspondence relates to Rev. T.N.Burke-Gaffney at Riverview College Observatory.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 5 Detonations - Scripts and Press Cuttings

Date Range: 1955 - 1973

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

The scripts are often annotated, and are mostly carbon copies. Some of the press cuttings contain references to statements made by Bullen. Many were collected by Bullen as they contained information that related to his research.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 6 South Australian Earthquake, 1939

Date Range: 1952 - 1953

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

The series consists of completed questionnaires, solicited by Bullen some years after the event, of an earthquake which took place in South Australia on 26 March 1939. The questionnaires were circulated to "prominent citizens" in rural South Australia as a means of supplementing data collected on siesmological instruments in capital cities.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen;H.Jeffreys

Previous Custodian: K.E.Bullen,Ms Yamamoto,Dr B. Jeffreys

Series: 7 Published and unpublished research

Date Range: 1933 - 1976

Accessions: 1/25;1/131;1092.

Quantity: 0.40

Item List:

Series Description:

These are copies of articles published in scientific journals, newspapers, and in other publications, also copies of unpublished addresses and statements. They are bound in eleven (11) volumes, each volumes containing a table of contents. Also includes a copy of a reprint of "Scismological Tables", first published by Bullen in collaboration with Harold Jeffreys in 1935, and again in 1940.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

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P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 8 Notes for Lectures and Publications

Date Range: 1922 - 1963

Accessions: 1/25;1/108

Quantity: 1.00

Item List:

Series Description:

The series consists of notes for lectures and outlines for publications, both by Bullen and others. The material relates to courses given by Bullen in New Zealand, and both Sydney and Melbourne universities. They relate to mathematics, physics, and history and philosophy of science. Also included is material for Department of External Studies courses for members of the armed forces. Also includes material for a course on History and Philosophy of Science, and a University External Studies course for members of the Armed Forces.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

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P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 9 Mathematics problems and solutions.

Date Range: 1920 - 1970

Accessions: 1/25;1/108

Quantity: 0.20

Item List:

Series Description:

This series includes solutions to mathematical problems, both by Bullen, and also Thorne, Ramsey, Swain and Lyons. Also some University of Sydney examination papers, with answers.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 10 Student Assignments

Date Range: 1947 - 1952

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

These are marked student essays submitted to Bullen in fulfillment of requirements for a course in Scientific Inference. One of the essays was submitted by a student at New England University College. There are also graded answers to a Applied Mathematics tutorial questions by R.C.Thorne submitted in 1947.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 11 Draft Addresses relating to teaching of Mathematics

Date Range: 1953 - 1953

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

Most of the addresses and scripts in this series are undated. They consist of draft addresses and speeches relating to the teaching of mathematics and geophysics.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 12 Department of Mathematics

Date Range: 1946 - 1971

Accessions: 1/25;1/108

Quantity: 0.10

Item List:

Series Description:

The series relates to the administration of the Department of Applied Mathematics, both before and after the establishment of the Department. There are also some records relating to Bullens membership of the Professorial Board.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 13 Australian Academy of Sciences.

Date Range: 1954 - 1975

Accessions: 1/25;1/27;1/108

Quantity: 0.12

Item List:

Series Description:

The records relate to the establishment of the Academy of Sciences in 1954, the election of Fellows, and the Committees of the Academy. These committees include that relating to the International Geophysical Year, and the Australian National Committee for Antarctic Research.

There are also copies of Bullens reports to the Academy on conferences and meetings he attended, such as the Special Committee for Antarctic Research, and the Australian National Antarctic Research Expeditions. Bullen was also the Academys representative on both of these bodies, and there are copies of minutes of the Executive Planning Committee of ANARE, which was established within the Federal Department of External Affairs.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 14 Special Committee on Antarctic Research.

Date Range: 1957 - 1972

Accessions: 1/25;1/27;1/108

Quantity: 0.03

Item List:

Series Description:

This series consists of correspondence relating to the Special Committee on Antarctic Research, which was established by the International Council of Scientific Unions in order to further international organization of scientific activity in Antarctica.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen;Mrs F.M.Bullen

Series: 15 International Institute of Seismology and Earthquake Engineering

Date Range: 1964 - 1975

Accessions: 1/25;1/108

Quantity: 0.04

Item List:

Series Description:

This series comprises lecture notes written by Bullen for a special course on seismology, and correspondence relating to the Institute. Bullen was appointed to the Institute by UNESCO, and the records include reports to UNESCO.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 16 Australian National University

Date Range: 1946 - 1976

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

The records in this series consists of correspondence relating to the establishment of the Australian National University, the appointment of the Professor of Geophysics, the Director of the Research School of Earth Sciences, and a proposal for a Department of Applied Mathematics.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 17 Melbourne University examination papers and answers

Date Range: 1940 - 1945

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

From 1940 to 1945, Bullen was a Senior Lecturer in Mathematics at the University of Melbourne, and this series contains examination papers from that University, together with answers, probably written by Bullen.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 18 University of Auckland

Date Range: 1926 - 1975

Accessions: 1/25;1/108

Quantity: 0.09

Item List:

Series Description:

This series comprises lecture notes, correspondence, and printed material relating to courses given by Bullen given during his time as a Visiting Professor at the University in 1975. Also printed material of the University referring to Bullen, and examination papers dated 1939-1945.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 19 New South Wales and Victorian State Governments

Date Range: 1941 - 1966

Accessions: 1/25;1/108

Quantity: 0.05

Item List:

Series Description:

The series comprises records relating to mathematics examinations in Victorian Government Technical Schools, and the New South Wales Leaving Certificate, plus answers, possibly in Bullens own hand. There are also copies of Bullens reports as examiner to the N.S.W. Government, and to his membership of the Syllabus Committee in the Board of Secondary School Studies.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 20 Miscellaneous Organizations

Date Range: 1935 - 1976

Accessions: 1/25;1/108

Quantity: 0.05

Item List:

Series Description:

These are records relating to the Worker's Education Association, the Institute of Actuaries, the Royal Society of New South Wales, the Pontifical Academy of Science, and the International Association of Seismology and Physics of the Interior of the Earth. They consist of lecture notes, solutions to questions, and correspondence.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 21 Personal Data

Date Range: 1915 - 1976

Accessions: 1/25;1/108

Quantity: 0.01

Item List:

Series Description:

These records comprise personal documentation relating to Bullen. They include documentation regarding his school days, to his early University career, and to various organizations, such as church, civil defence, and car ownership. There are c.v. constructed by his school, and on behalf of the Royal Society.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 22 Travel Diaries and Notes

Date Range: 1931 - 1974

Accessions: 1/25;1/108

Quantity: 0.11

Item List:

Series Description:

There are six separate volumes in this series, plus loose diary entries, and they cover a period from Bullens time at Cambridge, to his post retirement activities. There are four volumes dating from 1931 to 1934, these being the years that Bullen was at Cambridge, and travelled in the Soviet Union and Europe.

Bullen travelled widely all his life. In 1932, he went to the Soviet Union, to France, Belgium, Germany, and Poland. Between 1959 and 1974, Bullen travelled frequently to the U.S. and Japan, but he also went to South America, Europe and Iceland.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 23 Correspondence - personal, University of Sydney.

Date Range: 1915 - 1975

Accessions: 1/25;1/108

Quantity: 0.10

Item List:

Series Description:

This series consists of correspondence relating to Bullens father, to the University of Sydney, with editors of the Sydney Morning Herald, and with Mrs M.Rhodes. The series also includes study leave reports.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

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P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 24 Biographical Records.

Date Range: 1960 - 1976

Accessions: 1/25; 1/108

Quantity: 0.01

Item List:

Series Description:

The series comprises various types of biographical material, from high school journals to Bullens election to learned academies.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Remains with publications
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 25 Personal Manuscripts.

Date Range: n.k. - n.k.

Accessions: 1/25;1/108

Quantity: 0.09

Item List:

Series Description:

This series includes essays, apparently written by Bullen as a school pupil, drafts for his occasional address on receiving an honorary doctorate, and a biographical piece describing Bullens early years in New Zealand.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bulen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 26 Press Cuttings

Date Range: 1927 - 1976

Accessions: 1/25;1/108

Quantity: 0.06

Item List:

Series Description:

This series comprises press cuttings relating to Bullen, and some correspondence, and letters to editors. Much of the material emanates from New Zealand, and a good deal of it is not dated.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Bullens to University of Sydney
Access Status: Open

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P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 27 Photographic Images

Date Range: 1915 - 1975

Accessions: 1/25;1/108

Quantity: 0.04

Item List:

Series Description:

The series includes studio portraits of Bullen, group photographs from school and university days, and some at international conferences. There are also some images of Hawkes Bay, New Zealand, showing the aftermath of the 1931 earthquake.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 28 Auckland Grammar School

Date Range: 1919 - 1927

Accessions: 1/25

Quantity: 0.02

Item List:

Series Description:

This series consists of Bullens school reports for the years 1919 to 1922, and a collection of school calendars dated 1921 to 1927, annotated by Bullen.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 29 Student Exercise Books

Date Range: 1917 - 1928

Accessions: 1/25

Quantity: 0.20

Item List:

Series Description:

These are exercise books created by Bullen whilst at Mayfield School, Auckland Grammar School, and Auckland University College.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 30 Addresses and Notes

Date Range: 1930 - 1971

Accessions: 1/25;1/108

Quantity: 0.02

Item List:

Series Description:

The series comprises miscellaneous notes and addresses, together with some correspondence. There are notes for addresses given at Rotary Clubs, and to the general public, in addition to more scholarly discourses. Also includes a select listing of addresses given.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

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P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 31 Testimonials

Date Range: 1950 - 1973

Accessions: 1/25;1/108

Quantity: 0.11

Item List:

Series Description:

These are testimonials written by Bullen for students and staff of the Department of Applied Mathematics, and for candidates for Fellowships of the Royal Society of London.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Owned by the University of Sydney
Access Status: Open

P.025 Keith Edward Bullen

Creating Agency: K.E.Bullen

Previous Custodian: K.E.Bullen; Mrs F.M.Bullen

Series: 32 Miscellanea

Date Range: 1906 - 1945

Accessions: 1/25

Quantity: 0.01

Item List:

Series Description:

The series includes a copy of a thesis written by G.J.Odgers of the Commonwealth Solar Observatory, Canberra, and submitted at the University of Melbourne in 1945, together with related correspondence, and seven other articles.

Access: Open
Custody: Owned by the University of Sydney
Copyright: Remains with authors
Access Status: Open