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Guide to the Bruce Winstein Papers 1960-2010



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Table of Contents

Descriptive Summary	3
Information on Use	3
Access	3
Citation	3
Biographical Note	3
Scope Note	4
Related Resources	4
Subject Headings	4
INVENTORY	5
Series I: Teaching Materials	5
Series II: Experimental Materials	5
Subseries 1: Notes	5
Subseries 2: Logbooks	8
Series III: Writings by Others	10
Subseries 1: Conference Proceedings	10
Subseries 2: Dissertations	11
Subseries 3: Article Preprints/Reprints	13
Subseries 4: Other	14
Series IV: Restricted Material	15

Descriptive Summary

Identifier	ICU.SPCL.WINSTEINB
Title	Winstein, Bruce. Papers
Date	1960-2010
Size	14.25 linear feet (29 boxes)
Repository	Special Collections Research Center University of Chicago Library 1100 East 57th Street Chicago, Illinois 60637 U.S.A.
Abstract	Bruce Winstein (1943-2011) experimental physicist at the University of Chicago. This collection contains course materials, experimental materials, and scientific materials by others amassed by Winstein during his career. The bulk of the material dates from 1970-2003 and documents Winstein's scientific career.

Information on Use

Access

Series IV includes student evaluative material that is restricted until 2064 and budgetary material that is restricted until 2046. The remainder of the collection is open for research.

Citation

When quoting material from this collection, the preferred citation is: Winstein, Bruce. Papers, [Box #, Folder #], Special Collections Research Center, University of Chicago Library

Biographical Note

Bruce Winstein was born in Los Angeles on September 25, 1943. He studied at UCLA as an undergraduate, before receiving his doctorate in physics from California Institute of Technology in 1970. After two years of post-doctoral studies at the Max Planck Institute in Munich, Winstein was appointed a senior research associate at the University of Chicago. He was named assistant professor in 1976 and later became the Samuel K. Allison Distinguished Service Professor in Physics.

Winstein was heavily involved with work at Fermilab in Illinois, leading the long-running KTeV experiment, which in 1999 provided the first evidence of direct CP violation, proving a long running hypothesis held in particle physics. Its results implied that the direction of time is an innate property of the universe. In recognition of his work on KTeV, Winstein was awarded the Panofsky Prize in Experimental Physics in 2007.

After the publication of the KTeV data, Winstein shifted his field of research from particle physics to cosmology. He spent the 1999-2000 academic year in Princeton studying the polarization of the cosmic background radiation. This change of research interest also led Winstein to help found the Center for Cosmological Physics, now known as the Kavli Institute for Cosmological Physics. In cosmology, Winstein founded the QUIET collaboration in attempt to determine minute changes in the polarization of the cosmic background radiation. In all of his scientific endeavors, Winstein was a champion of “blind analysis”, the concept that experimenters should intentionally conceal results while analyzing data to avoid being biased by their preconceptions.

Winstein was elected to the National Academy of Sciences in 1995, and to the American Academy of Arts and Sciences in 2007. He died on February 28, 2011.

Scope Note

The Bruce Winstein Papers contain course materials, materials related to Winstein’s experiments at the University of Chicago and Fermilab, as well as writings by others amassed by Winstein during his career.

Series I: Teaching Materials, includes lecture notes, syllabi, homework assignments, and exams, lab manuals, and other materials relating to Winstein’s pedagogical duties at the University of Chicago.

Series II: Experimental Materials, contains notes, notebooks, logbooks, and other materials that document the many experiments Winstein ran as an experimental physicist.

Series III: Writings by Others, contains all materials not authored by Winstein himself, including conference proceedings, reprints and preprints of scientific papers, dissertations, etc.

Series IV: Restricted Material, contains student grade reports and grant

Related Resources

The following related resources are located in the Department of Special Collections:

<http://www.lib.uchicago.edu/e/spcl/select.html>

Winstein, Bruce. Film Posters. Collection

Subject Headings

- Winstein, Bruce
- University of Chicago. Dept. of Physics
- Fermi National Accelerator Laboratory
- Physics
- Physicists

INVENTORY

Series I: Teaching Materials

Box 1

Folder 1

University of Chicago Lab Manual Preparation, 1963-1982

Box 1

Folder 2

Physics 185 Course Materials, 1978

Box 1

Folder 3

Physics 234 Course Materials, 1983

Box 1

Folder 4

Physics 234 Course Materials, 1984

Box 1

Folder 5

Physics 228 Course Materials, 1990-1991

Box 1

Folder 6

Physics 228 Course Materials, 1992

Box 2

Folder 1

Physics 197 Course Materials, 1994

Series II: Experimental Materials

Subseries 1: Notes

Box 2

Folder 2

Research Notes, 1965-1970

Box 2

Folder 3

LIKE draft, notes, and calculations, 1966-1967

Box 2

Folder 4

Post-Analysis, 1969

Box 2

Folder 5

NAL 222, B. Winstein, Enrico Fermi Institute, 1969-1973 (1 of 2)

Box 2

Folder 6

NAL 222, B. Winstein, Enrico Fermi Institute, 1969-1973 (2 of 2)

Box 2

Folder 7

Spline, 1969-1976

Box 2

Folder 8

B. Winstein, E-82, 1973

Box 3

Folder 1

NAL 82, B. Winstein, Enrico Fermi Institute, 1973

Box 3

Folder 2

NAL 82 Monte-Carlo, B. Winstein, Enrico Fermi Institute, 1973-1974

Box 3

Folder 3

E617 PbG 1, 1973-1979 (1 of 2)

Box 3

Folder 4

E617 PbG 1, 1973-1979 (2 of 2)

Box 3

Folder 5

E617 PbG II, 1975-1979 (1 of 2)

Box 3

Folder 6

E617 PbG II, 1975-1979 (2 of 2)

Box 3

Folder 7

P617, B. Winstein, 1975-1979

Box 3

Folder 8

Spectrum notes and calculations, 1975

Box 4

Folder 1

E486 Studies, Data, 1976

Box 4

Folder 2

E226 Online Outputs, 1976 (1 of 2)

Box 4

Folder 3

E226 Online Outputs, 1976 (2 of 2)

Box 4

Folder 4

486/226 Analysis, 1977

Box 4

Folder 5

E326 SS, 1980

Box 4

Folder 6

E731 notes and correspondence, 1982-1985 (1 of 2)

Box 4

Folder 7

E731 notes and correspondence, 1982-1985 (2 of 2)

Box 4

Folder 8

CEPP Snowmass Meeting, 1996

Box 5

Folder 1

3π Transmission, Regeneration, CPLEAR, and BW memos/talks, 1997-1999

Box 5

Folder 2

Notes, Fits/Plots, $\pi\pi$ Backgrounds, and Diurnal Fits, 1998-2000

Box 5

Folder 3

CMBR, 1999-2001

Box 5

Folder 4

CAPMAP Archive Volume I, 2000-2002 (1 of 3)

Box 5

Folder 5

CAPMAP Archive Volume I, 2001-2002 (2 of 3)

Box 6

Folder 1

CAPMAP Archive Volume I, 2001-2002 (3 of 3)

Box 6

Folder 2

CAPMAP Archive Volume II, 2002-2003 (1 of 3)

Box 6

Folder 3

CAPMAP Archive Volume II, 2003 (2 of 3)

Box 6

Folder 4

CAPMAP Archive Volume II, 2003 (3 of 3)

Box 7

Folder 1

CAPMAP Archive Volume III, 2003 (1 of 3)

Box 7

Folder 2

CAPMAP Archive Volume III, 2003 (2 of 3)

Box 7

Folder 3

CAPMAP Archive Volume III, 2003 (3 of 3)

Box 7

Folder 4

CAPMAP Notebook, 2001-2006

Box 7

Folder 5

CAPMAP Radiometer Tests, 2002

Box 7

Folder 6

Winstein Mail – CAPMAP, 2002-2007

Box 8

Folder 1

CAPMAP – Hedman notebook, n.d.

Box 8

Folder 2

W-Band Radiometer Testing notebook, 2003

Box 8

Folder 3

dBs Season 1 summaries, 2003

Box 8

Folder 4

Color Coded e-log, 2003

Box 8

Folder 5

Null Tests from QUIET_project, 2010 (1 of 2)

Box 8

Folder 6

Null Tests from QUIET_project, 2010 (2 of 2)

Box 8

Folder 7

Notebook with notes, n.d.

Box 8

Folder 8

$|p|^2$ Analysis notes, n.d.

Subseries 2: Logbooks

Box 9

Folder 1

E617 “LOG 1”, 1981

Box 9

Folder 2

E617 “LOG 2”, 1981-1982

Box 10

Folder 1

E617 “LOG 3”, 1982

Box 10

Folder 2

E617 "LOG 4", 1982

Box 11

Folder 1

E617 "LOG 5", 1982

Box 11

Folder 2

E617 "LOG 6", 1982

Box 12

Folder 1

E617 Analysis, 1982-1983

Box 12

Folder 2

E617 Analysis, Book II, 1984

Box 13

Folder 1

E731 Design, 1983-1984

Box 13

Folder 2

E731 "ESSAIS S.L.A.C.", 1984

Box 13

Folder 3

E731 Logbook I, 1985

Box 14

Folder 1

E731 Logbook IV, 1985

Box 14

Folder 2

E731B Logbook 1, 1986-1987

Box 14

Folder 3

E731B Logbook 2, 1987

Box 15

Folder 1

E731B Logbook 3, 1987

Box 15

Folder 2

E731B Logbook 4, 1987

Box 15

Folder 3

E731B Logbook 5, 1987

Box 16

Folder 1

E731B Logbook 6, 1987-1988

Box 16

Folder 2

E731 Analysis, 1985-1986

Box 16

Folder 3

E731, 1986-1988

Box 16

Folder 4

E731, 1989-1990

Box 17

Folder 1

E731 Analysis continued, 1991-1992

Box 17

Folder 2

KTeV, 1992-1994

Box 17

Folder 3

KTeV, 1994-1999

Box 17

Folder 4

CPT and neutral kaons, 1986-1992

Box 18

Folder 1

Kaons at the Main Injector, 1988-1992

Box 18

Folder 2

[untitled], 1988-1989

Box 18

Folder 3

[untitled], 1989-1991

Box 19

Folder 1

CsI Crystal Order, 1992-1993

Box 19

Folder 2

MORIOND '94, 1994

Box 19

Folder 3

QUIET Lab Data, 2006-2010

Box 19

Folder 4

Offline Monitor Log, undated

Series III: Writings by Others

Subseries 1: Conference Proceedings

Box 20

Folder 1

CERN Topical Conference on Weak Interactions, 1969

Box 20

Folder 2

Proceedings of the 1983 DPF Workshop on Collider Detectors, 1983

Box 20

Folder 3

Proceedings of the Workshop on e+ e- Physics at High Luminosities, folder 1, 1985

Box 20

Folder 4

Proceedings of the Workshop on e+ e- Physics at High Luminosities, folder 2, 1985

Box 20

Folder 5

Low Level Counting in Tracking Liquid Drift Detectors, 1987

Box 21

Folder 1

New Directions in Neutrino Physics at Fermilab, 1988

Box 21

Folder 2

Physics at Fermilab in the 1990s, folder 1, 1989

Box 21

Folder 3

Physics at Fermilab in the 1990s, folder 2, 1989

Box 21

Folder 4

Crystal 2000 International Workshop Programme, 1992

Box 21

Folder 5

Proceedings of the Workshop on Fixed Target Physics at the Main Injector, 1997

Box 21

Folder 6

National Academy of Sciences Colloquium, 1998

Box 21

Folder 7

The Seven Pines Symposium VI papers, 2002

Subseries 2: Dissertations

Box 22

Folder 1

Coherent Regeneration of Ks's by Carbon as a Test of Regge Pole Exchange Theory, J. Roehrig, 1977

Box 22

Folder 2

Measurement of the Residual Charge on Superconducting Niobium Spheres, G. LaRue, 1978

Box 22

Folder 3

The Electromagnetic Interaction of the Neutral Kaon, W. Molzon, 1979

Box 22

Folder 4

The Electromagnetic Interaction of the Neutral Kaon, W. Molzon, 1979 (copy annotated by Winstein)

Box 22

Folder 5

A Study of CP-Violation, R. Bernstein, 1984

Box 22

Folder 6

A Measurement of the Branching Ratio, D. Coupal, 1985

Box 22

Folder 7

A Search for Direct CP Violation, M. Woods, 1988

Box 22

Folder 8

Contribution a la mesure du parameter de la violation de CPT, R. Daudin, 1989

Box 23

Folder 1

Determination of $RE(\epsilon'/\epsilon)$, J. Patterson, 1990

Box 23

Folder 2

Tau Branching Fractions and Polarization Measurement, M. Sasaki, 1991-1995 (incl. correspondence between Winstein and Sasaki)

Box 23

Folder 3

A Precise Measurement of the CP-Violation Parameter, L. Gibbons, 1993

Box 23

Folder 4

Eine neue Messung der Direkten CP-Verletzung, A. Wagner, 1993

Box 23

Folder 5

Rapport d'habilitation, L. Fayard, 1994

Box 23

Folder 6

Design and Evaluation of a Beam Stop in the Spectrometer of a Rare Kaon Decay Experiment, S. Worm, 1995

Box 23

Folder 7

Research on Galactic Dark Matter Implied by Gravitational Microlensing, N. Palanque-Delabrouille, 1997

Box 24

Folder 1

Hydrodynamic Coupling and Optical Patterning of Many-Particle Colloidal Systems, E. Dufresne, 2000

Box 24

Folder 2

Measurement of the Dalitz Parameters, M. Barrio, 2001

Box 24

Folder 3

Measurement of the Direct CP-Violating Parameter, J. Graham, 2001

Box 24

Folder 4

The Princeton IQU Experiment, M. Hedman, 2002

Box 24

Folder 5

Measurements of the Direct CP-Violation and CPT-Invariance, V. Prasad, 2002

Subseries 3: Article Preprints/Reprints

Box 24

Folder 6

Nucleon Resonances, 1960-1965

Box 24

Folder 7

Photoproduction Articles, 1963-1969

Box 25

Folder 1

Reprints, 1963-1969

Box 25

Folder 2

Polarization of Recoil Photons, 1965-1967

Box 25

Folder 3

Reprints, 1972-1977

Box 25

Folder 4

CP Violation Articles, 1984-1988

Box 25

Folder 5

Rare K Meson Decays, 1990

Box 25

Folder 6

CP Violation Articles, 1993-2009

Box 26

Folder 1

CP and CPT Symmetry Tests, 2005

Box 26

Folder 2

CP and CPT Summary, 1996

Box 26

Folder 3

National Academy of Sciences Biographical Memoirs, 1997

Box 26

Folder 4

Results from the Neutral Kaon Program at Fermilab's Meson Center Beamline, 1997

Box 26

Folder 5

Cosmic Microwave Background (CMB) Articles, 1997-2006

Box 26

Folder 6

Antimatter, LXXXVII National Congress of the Italian Physical Society

Subseries 4: Other

Box 26

Folder 7

Lecture Notes, "Feynman Particle Theory", course "Ph230a", late 1960s-early 1970s [n.d]

Box 26

Folder 8

Future Patterns of High Energy Research, 1972

Box 26

Folder 9

"The Case for a Structural Approach in Education," 1976

Box 26

Folder 10

High Energy Physics Advisory Panel Report, 1980

Box 27

Folder 1

Annual Report of the Fermi National Laboratory, 1982

Box 27

Folder 2

Notes on Statistics for Physicists, 1982

Box 27

Folder 3

Fermilab Research Program, 1983

Box 27

Folder 4

A Proposal to Extend the Intensity Frontier, 1984

Box 27

Folder 5

Physics at the Superconducting Super Collider Summary Report, 1984

Box 27

Folder 6

B Factory, 1986-1992

Box 27

Folder 7

The Physics Program of a High-Luminosity Asymmetric B-Factory at SLAC, 1989

Box 28

Folder 1

CESR B-Factory Upgrade, Presentation to HEPAP Subpanel, 1990

Box 28

Folder 2

Physics at Fermilab in the 1990s, 1990

Box 28

Folder 3

Physics Rationale for a B Factory, 1991

Box 28

Folder 4

Kaons at the Main Injector, 1991

Box 28

Folder 5

KTeV Design Report, 1992

Box 28

Folder 6

Research in Progress Physical Sciences, University of Chicago, 1997

Box 28

Folder 7

CFCP Short Course "Origin of Structure in the Universe," 2 CD-ROMs, 2003

Series IV: Restricted Material

Box 29

Folder 1

Physics 185 Student Grade Reports, 1978

Box 29

Folder 2

Physics 234 Student Grade Reports, 1983

Box 29

Folder 3

Physics 234 Student Grade Reports, 1984

Box 29

Folder 4

Center for Experimental and Theoretical Cosmology NSF Proposal, 1988

Box 29

Folder 5

Physics 227 Student Grade Reports, 1991-1992

Box 29

Folder 6

Physics 197 Student Grade Reports, 1994

Box 29

Folder 7

Image and Logic manuscript and referee reports, 1995-1996