

JONATHAN L. ROSNER

Curriculum Vitae

Born: New York City, July 23, 1941

Wife: Joy (married June 13, 1965)

Children: Hannah (born 1969), Benjamin (born 1979)

Roosevelt High School, Yonkers, NY, 1958 (valedictorian)

Swarthmore College, Swarthmore, PA, B. A. Physics, 1962 (highest honors)

Princeton University, Princeton, NJ, M. A. Physics, 1963;

Ph. D. Physics, 1965, advisor: S. B. Treiman.

Thesis: *Exchange of Massive Particles in the Bethe-Salpeter Equation.*

Research Assistant Professor, Univ. of Washington, 1965-7

Visiting Lecturer, Tel Aviv University, 1967-9

Assistant Professor, Univ. of Minnesota, 1969-71

Associate Professor, Univ. of Minnesota, 1971-5

Professor, Univ. of Minnesota, 1975-82

Professor, Univ. of Chicago, 1982 -

Enrico Fermi Institute, 5640 S. Ellis Ave.,

Chicago, IL 60637, tel. 773-702-7694;

E-mail: rosner@hep.uchicago.edu

Web site: <http://hep.uchicago.edu/~rosner>

Visiting appointments for 3 months or more

California Institute of Technology, 12/69-6/70 and 1/75-3/75

Institute for Advanced Study, 9/72-12/72, 9/76-6/77, and 9/88-6/89

CERN, 1/73-4/73, 4/84-9/84 and 1/96 - 9/96

Fermilab, 10/95-12/95

SLAC, 6/73-9/73

Yukawa Inst. (Univ. of Kyoto) and Tokyo Univ., 3/81-6/81

Cornell Laboratory of Nuclear Science 9/03-6/04

Honors, awards, national committees, etc.

Amateur radio license, 1953-, extra class 1990-

Westinghouse Science Talent Search Top 40, 1958

Phi Beta Kappa, Sigma Xi, 1962

American Physical Society, 1964-, Fellow, 1981-

Alfred P. Sloan Research Fellow, 1971-73

Translator, Sov. J. Nucl. Phys., 1970-72, 1978-92

Program Committee, Argonne National Laboratory, 1971-4

Program Committee, Fermi National Accelerator Laboratory, 1975-78

Secretary, Aspen Center for Physics, 1977-78
 Member, board of trustees, Aspen Center for Physics, 1977-83
 Member, Editorial Board, Phys. Rev. D, 1978-81
 Program Committee, Brookhaven National Laboratory, 1978-82
 Member, Natural Sciences and Engineering Grant Selection
 Committee (High Energy Physics), Canada, 1980-82
 Member, HEPAP Subpanel on Long Range Planning in High Energy
 Physics (Trilling committee), 1981-82
 Member, Particle Data Group Advisory Committee, 1981-83
 Member, Executive Committee, Division of Particles and Fields,
 American Physical Society, 1984-87
 Program Committee, Cornell Electron Storage Ring, 1986-88
 Visiting Committee, Bartol Research Foundation, 1987-91
 High Energy Physics Advisory Panel, 1987-91
 Who's Who in America, 1988-
 Who's Who in the Midwest, 1992-
 Who's Who in the World, 1994-
 Review Committee, Purdue Univ. Phys. Dept., 1990
 Program Committee (EPAC), SLAC, 1995-8
 Graduate Teaching Award, University of Chicago, 1996
 NSF Special Emphasis Panel on B Physics, 1998
 Editorial Advisory Board, American Journal of Physics, 1998-2002
 Program Committee (LCPAC), KEK (Japan), 1999-2004; Advisory Committee 2008
 Review Committee, HEP Program, Brookhaven National Laboratory, 1999, 2000
 Review Committee, Univ. of Colorado Physics Department, 2001
 John Simon Guggenheim Memorial Fellowship, 2003-4
 Member, CLEO Collaboration, Cornell Electron Storage Ring, 2003-
 Review Committee, MIT Laboratory of Nuclear Science, 2004

Recent department and university committees

Teaching activities committee, 1985-7; 92-3; 97-9; 2002-3; chmn., 1986-7 and 97-8
 Visiting fellows committee, 1985-8 ; chairman, 1986-7
 Graduate admissions committee, chairman, 1989-90; 1995-6; 1997-8
 EFI Fellowship Committee, chairman, 1998-9
 Appointments Committee, Physics Department, chairman, 1999-2000
 Candidacy Exam Committee, Physics Department, chairman, 2000-1
 Colloquium Committee, Physics Department, chairman, 2001-2
 Head, Program for Master's Degree in Physical Sciences, 2005-
 Theory Search Committee, chairman, 2007-8

Graduate students advised

Wesley P. Petersen, Ph. D., Univ. of Minnesota, 1973. Thesis:

“The 3P_0 Model for Baryon Decay of Matrix Elements and $SU(6)_W$.”

John B. Babcock, Ph. D., Univ of Minnesota, 1976. Thesis:

“A Model for the Radiative Couplings of Excited Hadrons Incorporating the Single Quark Transition Rules and Vector Dominance.”

Richard W. Robinett, Ph. D., Univ. of Minnesota, 1981. Thesis:

“Mass Scales in Grand Unified Theories.”

Chung Ngoc Leung, Ph. D., Univ. of Minnesota, 1983. Thesis:

“Observable Consequences of $SO(10)$ Unified Theories.”

Peter J. Moxhay, Ph. D., Univ. of Minnesota, 1983. Thesis:

“Relativistic Corrections in Quarkonium.”

David London, Ph. D., Univ. of Chicago, 1985. Thesis:

“Is the Doubly Charged Monopole Stable?”

Phys. Rev. D **33**, 3075 (1986).

L. Brekke, Ph. D., Univ. of Chicago, 1988. Thesis:

“Baryon Magnetic Moments in Quark Models with Anomalous Magnetic Moments.”

Ann. Phys. (N.Y.) **240**, 400 (1995).

I. Dunietz, Ph. D., Univ. of Chicago, 1988. Thesis:

“Rephase Invariance of KM Matrices and CP Violation.”

Annals of Physics **184**, 350 (1988).

A. Kagan, Ph. D., Univ. of Chicago, 1989. Thesis:

“Radiative Quark Mass and Mixing Hierarchies from Supersymmetric Models with a Fourth Mirror Family.”

Phys. Rev. D **40**, 173 (1989).

R. Rosenfeld, Ph. D., Univ. of Chicago, 1990. Thesis:

“Resonances in the Higgs Sector for Large, Finite Higgs-boson Mass.”

Phys. Rev. D **42**, 126 (1990).

W. Kwong, Ph. D., Univ. of Chicago, 1991. Thesis:

“Threshold Production of $t\bar{t}$ Pairs by e^+e^- Collisions.”

Phys. Rev. D **43**, 1488 (1991).

L. Orr, Ph. D., Univ. of Chicago, 1991. Thesis:

“Decay vs. Hadronization for Top Quarks Produced in Hadron Colliders.”

Phys. Rev. D **44**, 88 (1991).

P. Ko, Ph. D., Univ. of Chicago, 1991. Thesis:

“The Role of Vector Mesons in Nonleptonic Kaon Decays.”

Phys. Rev. D **44**, 139 (1991).

J. Amundson, Ph. D., Univ. of Chicago, 1993. Thesis:

“Subleading Heavy Quark Effects in a Nonrelativistic Quark Model.”

Phys. Rev. D **49**, 373 (1994).

- G. Jungman, Ph. D., Univ. of Chicago, 1993. Thesis:
 “Fermion Masses in SO(10).”
 Phys. Rev. D **46**, 4004 (1992).
- A. Grant, Ph. D., Univ. of Chicago, 1995. Thesis:
 “Implications of a Heavy Top Quark for the Two-Higgs-Doublet Model.”
 Phys. Rev. D **51**, 207 (1995).
- M. Worah, Ph. D., Univ. of Chicago, 1995. Thesis:
 “Cosmological Baryon Number and Kaon CP Violation from a
 Common Source.”
 Phys. Rev. D **53**, 3902 (1996).
- B. P. G. Mertens, Ph. D., Univ. of Chicago, 1997. Thesis:
 “One-Loop Renormalization of Massive Fermions in Massive QCD.”
 B. P. G. Mertens, A. S. Kronfeld, and A. X. El-Khadra,
 “The Self-Energy of Massive Fermions,”
 Phys. Rev. D **58**, 034505 (1998).
- A. Dighe, Ph. D., Univ. of Chicago, 1997. Thesis:
 “Determination of CKM Phases Through Rigid Polygons of Flavor
 SU(3) Amplitudes.”
 Phys. Rev. D **54**, 2067 (1996).
- D. F. Sullivan, M. Sc., Univ. of Chicago, 1999. Thesis:
 “Extraction of radio frequency transients from events associated
 with cosmic ray air showers.”
- A. Vallinoto, M. Sc., Univ. of Chicago, 2000. Thesis:
 “Path integral approach to the semiclassical quantization conditions.”
- Z. Luo, Ph. D., Univ. of Chicago, 2003. Thesis:
 “ Z decays in the light gluino and light bottom squark scenario.”
- T. André, Ph. D., Univ. of Chicago, 2004. Thesis:
 “Radiative corrections in $K_{\ell 3}^0$ decays.”
- D. Suprun, Ph. D., Univ. of Chicago, 2004. Thesis:
 “Charmless hadronic B decays in the context of flavor SU(3) symmetry.”
- Currently advising Bhubanjyoti Bhattacharya, David McKeen, and Arun Thalapillil;
 Ph. D. degrees expected 2009.

Undergraduate theses advised

- Jeffrey D. Anderson, B. A. with Honors, Univ. of Chicago, 1987:
 “Numerical Solutions of the One Dimensional Schrödinger Equation Using 2×2
 Transformation Matrices”.
- Eric Rynes, B. A. with Honors, Univ. of Chicago, 1991:
 “Masses of New B Mesons from Interpolation of Power-Law Potential Models.”
 Published as “An Updated Description of Quarkonium by Power-Law Potentials,”

with Aaron K. Grant and Jonathan L. Rosner,
Phys. Rev. D**47**, 1981 (1993).

Lindy Blackburn, B. A. with Honors, Univ. of Chicago, 2003:
“Hadronic Decays of $\Upsilon(3S)$ and Search for the h_b and η_b .”

Grants and contracts

U. S. Department of Energy, DE FG02 90ER40560
(with D. Kutasov, E. J. Martinec, and C. E. M. Wagner), 1982-

U. S. – Israel Binational Science Foundation,
No. 85-00144 (with M. Gronau and J. Schechter), 1987-90;
No. 90-00483 (with M. Gronau, G. Eilam, and W. Marciano), 1992-95;
No. 94-00253 (with M. Gronau, G. Eilam, and A. Soni), 1995-9;
No. 98-00237 (with M. Gronau, G. Eilam, and A. Soni), 1999-2002

U. S. – Japan Collaborative Research program,
National Science Foundation, No. INT-8613131
(with N. Khuri, A. Sanda, and L. Wolfenstein), 1987-9
With I. Bigi, Z. Ligeti, M. Neubert, H. Quinn, and M. Shifman, 2001-4

Block Board Award, University of Chicago, 1996

University of Chicago – Argonne National Laboratory Collaborative Seed Grant
(with E. L. Berger), Award No. 99-005, 1999-2001; 2006-; with H. Frisch and C. E.
M. Wagner, 2005- ; Joint Theory Institute Grant (with E. L. Berger), 2006-

Lecture series and summer schools

Summer Institute on Duality, Louvain, Belgium, Sept. 1971

NATO Advanced Study Institute, St. Croix, V. I., July 1980

Second Lake Louise Winter Institute, Canada, Feb. 1987

TASI-87, Santa Fe, NM, July 1987

Banff Summer Institute, Canada, Aug. 1988

TASI-90, Boulder, CO, June 1990

Fourth Mexican School of Particles and Fields, Oaxtepec, Dec. 1990

VIII J. A. Swieca and LISHEP Summer Schools in Particle Physics,
Rio de Janeiro, Feb. 1995

Cargèse Summer School on Particle Physics, Corsica, Aug. 1996

Co-organizer (with B. Winstein) of Kaon 99 Conference, Chicago, June 1999

Scientific Program Director and lecturer, TASI-2000, Boulder, CO, June 2000

Scottish Universities' Summer School, August 2001

Distinguished lecture series, Technion, Haifa, Israel, January 2007