Raymond Brock

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Personal Statistics:

Born: August 2, 1950 (Oak Park, IL)
Married: Janet Peterkin (27 years), 2 children (Terry, 16 & Kimberly, 12)
Citizenship: U. S.

Education:

1972	B. S.	Electrical Engineering Iowa State University
1975	M. S.	Physics & Philosophy of Science Northern Illinois University
1977	M. S.	Physics Carnegie–Mellon University
1980	Ph. D.	Elementary Particle Physics (experiment and theory) Carnegie–Mellon University

Professional Experience:

Jan., 1994–present	Chairperson, Department of Physics and Astronomy, Michigan State University
1991–present	Professor, Michigan State University
1986–1991	Associate Professor, Michigan State University
1982–1986	Assistant Professor, Michigan State University
1980–1982	Research Associate, Fermi National Accelerator Laboratory
1972–1973	Sales Engineer Driv–Lok, Inc.

Professional Societies and Awards:

1976–present;	American Physical Society
1982–present;	AAAS
1975–present;	$\Sigma\Xi$
1985;	Michigan State University "Teacher–Scholar Award" recipient
1993;	Department of Physics and Astronomy "Best Graduate Instructor Award" recipient
1999:	Fellow, American Physical Society

1 Seminars, colloquia, and general speeches and presentations

1.1 scientific–seminars and colloquiua

1. "Antineutrino Scattering and the Parton Model", colloquium, Northern Illinois University, October 1977.

2. "Strange Particle Production in $\bar{\nu}p$ Interactions", R. Brock et al., Bull. Am. Phys. Soc. 24, 655 (1979).

3. "Dimuon Measurements of the Strange Quark Sea", seminar, Carnegie-Mellon University-University of Pittsburgh, November, 1979

4. "Early Results from Experiment 594 at Fermilab", seminar, Argonne National Laboratory, October, 1981.

5. "Recent Results from Fermilab Neutrino Experiment E594", seminar, Eidgenossische Tech ische Hochschule, Zurick, Switzerland, July 1984.

6. "Neutral Current Neutrino Scattering at Fermilab", colloquium, Central Michigan University, November, 1984.

7. "Weak Neutral Currents", colloquium, University of Florida, October, 1985.

8. "Weak Neutral Currents, an Introduction and Review", colloquium, Georgia Institute of Technology, October, 1985.

9. "Weak Neutral Currents Using the Fine-Grained Neutrino Detector at Fermilab", colloquium, Florida State University, October, 1985.

10. "Weak Neutral Currents, an Introduction and Review", colloquium, Michigan State University, November, 1985.

11. "Weak Neutral Currents Using the Fine-Grained Neutrino Detector at Fermilab", seminar, Ohio State University, December, 1985.

12. "Recent Results from E594 at Fermilab", seminar, Cornell University, March, 1986.

13. "Recent Results from E594 at Fermilab", seminar, University of Hawaii, June, 1986

14. "Preliminary Results on $\sin^2\theta_W$ from Experiment E733 at Fermilab", seminar, University of Chicago, November, 1990

15. "What is the Weinberg Angle and How is it Determined?", colloquium, Carnegie-Mellon University, April, 1991

16. "Weighing the Weak Force at Fermilab", colloquium, Michigan State University, May, 1996.

17. "Future High Luminosity Electroweak Physics at Fermilab", Invited seminar at the Beijing Electron Synchrotron (BES), Beijing, China, August, 1997.

18. "Millennial Physics at Fermilab", colloquium, April, 1999, Vanderbilt University.

19. "Millennial Physics at Fermilab", colloquium, October, 1999, Michigan State University.

1.2 scientific–invited

1. "The Operation of a Large Flash Chamber Neutrino Detector at Fermilab", R.Brock, IEEE Nuclear Science Symposium, October 1981

2. "Use of the Tevatron 150 GeV Injection Beam for a Neutrino Beam", Fermilab Workshop on Neutrino Beams, November 30, 1982

3. "Future Running with the Flash–Chamber–Proportional–Tube Calorimeter Neutrino Detector at Fermilab", 9th International Workshop on Weak Interactions and Neutrinos, Talloires, France, September 1983

4. "$\sin^2\theta_W$ from E594 at Fermilab", invited talk, 12th International Conference in Neutrino Physics and Astrophysics, Sendai, Japan, June 1986

5. "Review of Deep Inelastic Scattering Measurements of $\sin^2\theta_W$" invited review at the Fermilab conference, New Directions in Neutrino Physics , September, 1988

6. "Some Ideas of Neutrino Physics with the Proposed Fermilab Main Injector" invited introduction at the Fermilab Workshop, Physics with the Main Injector, May 1989

7. "Fixed Target Electroweak Working Group Summary", presented at the Physics at Fermilab in the 1990s Workshop, Breckenridge, CO, August, 1989.

8. "Status of the FMMF Collaboration Tevatron Measurement of $\sin^2\theta_W$", Proceedings of the APS DPF90 Conference, January 5, 1990, Houston, TX

9. "Prospects for the Determination of M_W", Workshop in Electroweak Physics at the Institute for Theoretical Physics, Santa Barbara, January, 1991.

10. "Determination of $\sin^2\theta_W$ in Deep inelastic Neutrino Scattering at the Tevatron", Division of Particles and Fields meeting, Houston, TX, November 1992

11. "Review of Electroweak Physics Potential of an Upgraded Tevatron", invited talk to the 1995 Fermilab Users Meeting, Fermilab, July, 1992

12. "Review of the *tev_2000* Workshop", opening address to "Tev33 Workshop", Fermilab, May, 1996

13. "Future Electroweak Physics Opportunties at Fermilab: Prospects for Run II and TeV33b", $p\bar{p}$ Workshop, Padova, Italy, May, 1996

14. "QCD Results from the Tevatron Collider", plenary talk, XXXII International Conference on High Energy Physics, Warsaw, Poland, July, 1996

15. "Hadron Collider Physics", plenary talk, Fundamental Particles and Interactions, Frontiers in Contemporary Physics lecture and workshop series, Vanderbilt University.

16. "Determination of the Mass of the W Boson at Hadron Colliders", Seventh Asia Pacific Physics Conference, Beijing, China, August, 1997.

17. "Fermilab Physics in Run II", Fermilab Users Meeting, July, 1998.

1.3 Summer school, pedagogical

1. "Introduction to Quantum Field Theory", lectures given to "University of DØ", an internal graduate–level seminar series for the graduate students stationed at Fermilab from all collaborations, 1988.

2. "Drell Yan Production", lectures given to the second annual CTEQ summer school, Mackinac Island, MI, 1992

3. "An Eccentric Introduction to the Standard Model", lectures given to the third annual CTEQ summer school, Lake Monroe, IN, 1993.

4. "Dilepton Production", lectures given to the fifth annual CTEQ summer school, Lake Como, WI, 1997.

1.4 professional

1. 1988; panel participant of five experimenters asked to appear before the Fermilab Site Visiting Committee in January 1988

2. 1990; represented High Energy Physics to the NSF Advisory Committee for Physics at their biannual meeting on May 8, 1990

3. 1990; talk to the DOE High Energy Physics Advisory Panel

4. 1993; talk to the DOE High Energy Physics Advisory Panel

5. 1994; talk to the Division of Particles and Fields meeting representing the Committee on Long Range Planning, regarding Structural Issues.

6. 1996; talk to the Fermilab Board of Overseers on the future of Fermilab electroweak physics

7. 1996; talk to the DOE Fermilab Visiting Committe on the future of Fermilab electroweak physics

1.5 public

1. "Getting to the Bottom of the Top Quark", lecture series for high school physics teachers, Michigan State University, April, 1996