WILLIAM D. McGLINN

PROFESSOR OF PHYSICS **TENURED** **AT NOTRE DAME SINCE 1965**

BORN: February 15, 1930 **AT:** Leavenworth, Kansas

University of Kansas; 1952; B.S.
University of Kansas; 1959; Ph.D.

Northwestern University Faculty, 1958-1963
Associate Research Fellow, Argonne National Laboratory, 1963-1965
Associate Professor, University of Notre Dame, 1965-1968
Professor, University of Notre Dame, 1968-present

Research Area:
Theoretical Physics

Invited Addresses:
Midwest Conference on Theoretical Physics, Iowa State University, June, 1964
Theoretical Physics Colloquium, University of Wisconsin, April, 1964
Wayne State University, October, 1964
Theoretical Physics Colloquium, Purdue University, October, 1965
Institute for Theoretical Physics, State University of New York, Stony Brook, New York, August, 1967
Northwestern University, Evanston, Illinois, November, 1967
Conference on "Trends in Theories of Fundamental Interactions," Dublin Institute for Advanced Studies, Dublin, Ireland, May 24, 1989
Dublin Institute of Advanced Studies, Dublin, Ireland, June 4, 1992
Delhi University, Delhi, India, December 23, 1992
King's College, London University, London, England, October 13, 1993
"O'Raifeartaigh Memorial Conference," Dublin Institute for Advanced Studies, Dublin, Ireland, September 26-28, 2002

List of Scientific Publications

"Annihilation of Polarized Positrons in Magnetized Iron," W.D. McGlinn, Nuovo Cimento 22, 225 (1961).

"Coupling Constants and S-Matrix Zeros," C.H. Albright and W.D. McGlinn, Nuovo Cimento 25, 193 (1962).

"S-Matrix and T-Matrix Zeros in Two Statis Models," W.D. McGlinn and C.H. Albright, Nuovo Cimento 27, 834 (1963).

"Problem of Combining Interaction Symmetries and Relativistic Invariance," W.D. McGlinn, Phys. Rev. Letters 12, 469 (1964).

"Internal Symmetry and Lorentz Invariance," F. Coester, M. Hamermesh, and W.D. McGlinn, Phys. Rev. 135, B451 (1964).

"Crossing Relations and the Predictions of Symmetries in a Soluble Model," W.D. McGlinn and A.W. Martin, Phys. Rev. Letters 15, 897 (1965).

"Algebraic Structure Resulting from Superconvergence Relations," S.K. Bose, P.C. DeCelles, and W.D. McGlinn, Phys. Rev. Letters 18, 873 (1965).

"Electromagnetic Current in Strong Coupling Theory," S.K. Bose and W.D. McGlinn, Phys. Rev. 163, 1772 (1967).

"Broken SU(3) Symmetry in Strong-Coupling Theory," Hock-kee Sim and W.D. McGlinn, Phys. Rev. 170, 1582 (1968).

"Unitary Sum Rule for K_S-K_L Decay," W.D. McGlinn and D. Polis, Phys. Rev. Letters 22, 908 (1969).

"Another Restriction on Weak Neutral Currents," C.H. Albright and W.D. McGlinn, Phys. Letters 29B, 666 (1969).

"Space-Time Symmetries and the Spontaneous Breakdown of Dilation Invariance," S.K. Bose and W.D. McGlinn, Phys. Rev. D3, 2962 (1971).

"Remarks on the Breaking of Dilation Invariance," S.K. Bose and W.D. McGlinn, Phys. Rev. D4, 342 (1971).

"Massive Particles and the Spontaneous Breakdown of Dilation Invariance," S.K. Bose and W.D. McGlinn, Phys. Rev. D6, 2304 (1972).

"SU(4)-Symmetric Strong-Coupling Theory," W.D. McGlinn, Phys. Rev. D12, 3246-3250 (1975).

"Baryon Interactions in SU(4)," S.K. Bose and W.D. McGlinn, Phys. Rev. D14, 3167-3173 (1976).

"Uniqueness of Perturbation of a Reissner-Nordstrom Black Hole," Chul H. Lee and W.D. McGlinn, Journal of Math. Phys. Vol. 17, 2159-2165 (1976).

"Photon-Induced Electron Capture," W.D. McGlinn, Phys. Rev. A28, 2538 (1983).

"Remarks on Maximally Embedded Self-Dual Monopoles," S.K. Bose and W.D. McGlinn, Phys. Rev. D29, 1819 (1984).

"Spherical self-dual monopoles with maximal embeddings in subgroups," W.D. McGlinn, Phys. Rev. D30, 2249 (1984).

"Extrema of SO(N) - invariant Higgs Potentials and their Associated Mass Eigenstates," Ross Thornburg and W.D. McGlinn, Phys. Rev. D33 (1986).

"Absolute Minima of a SO(10) Invariant Higgs Potential," Omer Kaymakealan, Louis Michel, Kameshwar K.C. Wali, W.D. McGlinn, and Lochlainn O' Raifeartaigh, Nuclear Physics B267, pp. 203-230, (1986).

"Properties of Some Self-Dual Monopoles," Sean Fitzsimmons and W.D. McGlinn, Phys. Rev. D36, 2571-2574 (1987).

"Effect of Finite Mass on Gravitational Transit Time," S.K. Bose and W.D. McGlinn, Phys.Ref.D38, 2335 (1988).

"On the Galilean Structure of the Weyl Group for Affine Kac-Moody Algebras," William McGlinn, N. Gorman. L. O'Raifeartaigh and D. Williams, Infinite-Dimensional Lie Algebras and Quantum Field Theory - Proc. at the Varma Summer School, 1987, World Scientific, Singapore (1988).

"A Unified Approach to the Computation of Central Terms in Kac-Moody and Virasoro Algebras," N. Gorman, W. McGlinn, L. O'Raifeartaigh and D. Williams, International Journal of Modern Physics A4, 1235-1255 (1989).

"Cartan-Preserving Automorphisms and the Weyl Group of Kac-Moody Algebras," N. Gorman, L. O'Raifeartaigh, and W. McGlinn, New Theories in Physics -- Proceedings of the XI Warsaw Symposium on Elementary Particle Physics, Z. Ajduk, S. Pokorski, and A. Trautman, eds., World Scientific, Singapore, p. 406-425 (1989).

"Cartan-preserving automorphisms of untwisted and twisted Kac-Moody algebras," N. Gorman, L. O'Raifeartaigh and W. McGlinn, Journal of Math. Phys. Vol. 30, 1921-1932 (1989).

"A Streamlined Highest Weight Derivation of the Bilinear Virasoro Centre," N. Gorman, L. O'Raifeartaigh and W. McGlinn, Mod. Phys. Lett. A4, 18, 1789-1796 (1989).

"Topological Spin-Statistics Theorems for Strings," A.P. Balachandran, W.D. McGlinn, L. O'Raifeartaigh, S. Sen, R.D. Sorkin and A.M. Srivastava, Mod. Phys. Lett. A7, 16, 1427-1442 (1992).

"Virasoro Operators for Arbitrarily Twisted Kac-Moody Algebras," M. McGettrick, N. Gorman, L. O'Raifeartaigh, and W.D. McGlinn, Int. Journ. Mod. Phys. A7, 2547 (1992).

"The Spin-Statistics Connection from Homology Groups of Configuration Space and an Anyon Wess-Zumino Term," A.P. Balachandran, R.D. Sorkin, W.D. McGlinn, L. O'Raifeartaigh, and S. Sen, Int. Journ. Mod. Phys. A7, 27, 6887 (1992).

"Morse Theory and the Topology of Configuration Space," W.D. McGlinn, L. O'Raifeartaigh, S. Sen, and R.D. Sorkin, International Journal of Modern Physics A, Vol. II, No. 5, 823-843 (1996).

"On the completeness of the canonical reductions from Kac-Moody to W-Algebras," W.D. McGlinn and L. O'Raifeartaigh, Nuclear Physics B503, 688-714 (1997).

Books

"Introduction to Relativity," William D. McGlinn, The Johns Hopkins University Press, Baltimore and London, 205 pages (2002).