

people

[Faculty Directory](#)

[Academic Staff
Directory](#)

[Administrative
Staff Directory](#)

[Pappalardo
Fellows Directory](#)

[Postdoctoral
Scholars](#)

[Departmental
Committees](#)

[Society of
Physics Students](#)

↗

[Physics Graduate
Students Council](#)

↗

[Undergraduate
Women in Physics](#)

↗

[Graduate Women
in Physics](#) ↗

[MIT Association
of Postdoctoral
Scholars](#) ↗

[Alumni & Friends](#)



Faculty

JUNE MATTHEWS

Professor of Physics, *Emerita*



Name: June L. Matthews

Title(s): Professor of Physics, *Emerita*

Email: matthews@mit.edu

Phone: (617) 253-4238

Assistant: [Joanne Gregory](#) (617) 253-7062

Address:

Massachusetts Institute of Technology
77 Massachusetts Avenue, Bldg. [26-433](#)
Cambridge, MA 02139

Related Links:

[MIT Laboratory for Nuclear Science](#)

Area of Physics

[Experimental Nuclear Physics](#)

Research Interests

Professor Matthews' research interests are in within the area of Intermediate-energy nuclear physics with electromagnetic and hadronic probes—experiments at the MIT-Bates Linear Accelerator Center and the Los Alamos Neutron Science Center. Her work also involves:

- studies of the few-nucleon problem;
- inelastic processes in the neutron-proton system;
- dynamics of meson scattering and charge exchange; and
- short-range, high-momentum, mesonic, and quark effects in nuclei.

Biographical Sketch

Professor Matthews received her B.A. in Physics from Carleton College, Northfield, Minnesota, in 1960 and her Ph.D. from MIT in 1967. After postdoctoral fellowships at the University of Glasgow, Scotland, and Rutgers University, New Jersey, she joined the MIT faculty in 1973. She has been a member of numerous MIT committees, including the Presidential Task Force on Student Life and Learning, and has chaired the Committee on Curricula and the Committee on Undergraduate Admissions and Financial Aid. Professor Matthews served as Academic Officer in the Physics Department between 1994 and 1998. From 2000-06 she served as Director of the MIT Laboratory for Nuclear Science.

Professor Matthews has served on the Editorial Boards of the *Physical Review*, *Physical Review Letters*, and the *American Journal of Physics*. She has served on the Council and the Executive Committee of the American Physical Society. Professor Matthews has also served

as Chair of the Los Alamos Meson Physics Facility Users Group, been a member of the Executive Committee of the Los Alamos Neutron Science Center Users Group, and has served on the scientific Program Advisory Committees of these laboratories and the MIT-Bates Linear Accelerator Center. In 2000, she was Chair of the New England Section of the American Physical Society.

Professor Matthews is a member of the American Association of Physics Teachers, and is a Fellow of the American Physical Society, the American Association for the Advancement of Science, and the Institute of Physics (UK).

Selected Publications

- "A Study of the D- Component of the Wave-function in Light Nuclei," Phys. Lett. **B523**,1 (2001) [with E.A. Pasyuk, R.L. Boudrie, P.A.M. Gram, C.L. Morris, J.D. Zumbro, Y. Tan, V.V. Zelevinsky, G. Glass, and B.J. Kriss]
- "Differential Cross Section for Neutron-Proton Bremsstrahlung," in Capture Gamma-Ray Spectroscopy and Related Topics, 10th International Symposium, ed. by S. Wender (AIP 529, 2000), p. 594 [with Y. Safkan]
- "Experimental Searches for Pre-Existing Delta Components in Nuclear Wave Functions," in Proceedings of the Second workshop on Electronuclear Physics and Internal Targets and the BLAST Detector, ed. by R. Alarcon and R. Milner (World Scientific 1999), p. 355
- "Pion Double Charge Exchange and Inelastic Scattering on ^3He ," Phys. Rev. C **55**, 1848 (1997) [with M. Yuly, W. Fong, E.R. Kinney, C.J. Maher, T. Soos, J. Vail, M.Y. Wang, S.A. Wood, P.A.M. Gram, G. A. Rebka, Jr., and D. A. Roberts]
- "Pion-Induced Single Charge Exchange in Deuterium," Phys. Rev. C **51**, R1613 (1995) [with H.T. Park, S.F. Pate, J.F. Amann, C.L. Morris, R.M. Whitton, E.R. Kinney, C. Mertz, and J. Redmon]

Last updated on March 25, 2014 2:58 PM

