

National Superconducting Cyclotron Laboratory, Michigan State University
1125 Cyclotron, East Lansing, MI 48824-1321, (517) 980-7608, syphers@msu.edu

EDUCATION

Ph.D., University of Illinois at Chicago, Chicago, June, 1987
M.S., with distinction, De Paul University, Chicago, June, 1984
B.S. in Education, Indiana University, Bloomington, August, 1979

EXPERIENCE

Professor of Physics, NSCL and Department of Physics and Astronomy,
Michigan State University, East Lansing, MI **2010 to present**

Scientist, Accelerator Division, Fermilab, Batavia, IL **1998 to 2010**

- Assistant Head, Accelerator Division (2005 to 2010)
- Associate Project Manager, Mu2e (E973) (2009 to 2010)
- Head, Beam Physics Department (1999 to 2004)

Scientist, Brookhaven National Lab., Upton, NY **1994 to 1998**

- Project Manager, RHIC Polarized Proton Collider project
- Accelerator Physicist, Alternating Gradient Synchrotron Department

Scientist, SSC Laboratory, Dallas, TX **1989 to 1994**

- Head, Accelerator Theory Group (1991 to 1994)

Engineering Physicist, Fermilab, Batavia, IL **1985 to 1989**

PUBLICATIONS

(Total Publications: >100. Invited Talks since 2005: 6)
Selected Publications:

- D. A. Edwards, M. J. Syphers, *An Introduction to the Physics of High Energy Accelerators*, John Wiley & Sons, NY (1993).
- T. Adams, et al., *Renaissance of the ~ 1 TeV Fixed-Target Program*, *Int. J. Mod. Phys. A* Vol. 25, No. 4 (2010) 777813.
- R. Miyamoto, S.E. Kopp, A. Jansson, M.J. Syphers, *Parameterization of the Driven Betatron Oscillation*, *Phys. Rev. ST-AB* 11, 084002 (2008).
- M. J. Syphers, L. Michelotti, *Dispersive Effects in a Bent NLC Main Linac*, *Proc. 2001 Part. Accel. Conf., 0-7803-7191-7/01*, 3786 (2001).
- D. Jeon, et al., *A mechanism of anomalous diffusion in particle beams*, *Phys. Rev. Lett.* 80, 2314 (1998).
- M. Bei, et al., *Experimental test of coherent betatron resonance excitations*, *Phys.Rev.E56*, 6002 (1997).

TEACHING**University Semester Courses –**

Graduate level introductory Accelerator Physics: Michigan State, with D. Leitner (2011); North Texas, with D.A. Edwards (1991); Texas, with D.A. Edwards and A.W. Chao (1990); Northwestern, with D.A. Edwards (1989).

U.S. Particle Accelerator School Courses –

Undergraduate level Accelerator Physics: Texas (2012); California, Berkeley (2005); Indiana (held at Baton Rouge, LA) (2003); Rice (2001), Vanderbilt(1999), Texas (with L.K. Spentzouris) (1998); Washington (with L.K. Spentzouris) (1997)
Graduate level Beam Optics: California, Santa Cruz (2008)
Graduate level Accelerator Design: California, Los Angeles (1994)
Graduate level Accelerator Physics (with D.A. Edwards): Stanford (1992); Harvard (1990); Cornell (1988)

High School Physics Teacher – *Batavia High School, Batavia, IL (1979-1980)*

ADDITIONAL

Fellow, American Physical Society
Graduate, Strategic Lab Leadership Program, U. Chicago Booth School of Business