Michael J. Syphers

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Department of Physics, Northern Illinois University, DeKalb, IL 60115 msyphers@niu.edu

EXPERIENCE

Research Professor, Department of Physics, Northern Illinois University, DeKalb, IL **since 2015**

Professor of Physics, NSCL and Department of Physics and Astronomy, Michigan State University, East Lansing, MI **2010-2015**

Scientist, Accelerator Division, Fermilab, Batavia, IL **1985-89; 98-2010**

- Assistant Head, Accelerator Division (2005 to 2010)
- Head, Beam Physics Department (1999 to 2004)

Scientist, Brookhaven National Lab., Upton, NY **1994-98**

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

Scientist, SSC Laboratory, Dallas, TX **1989-94**

- Head, Accelerator Theory Group *(1991-94)*

EDUCATION

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

PUBLICATIONS

Selected Publications (Total Publications: >150. Invited Talks since 2009: 14)

- *D.A. Edwards, M.J. Syphers,* An Introduction to the Physics of High Energy Accelerators, *John Wiley & Sons, NY (1993).*
- D. Stratakis, *et al.*, "Commissioning and first results of the Fermilab Muon Campus", Phys. Rev. Accel. Beams **22**, 011001 (2019).
- M.J. Syphers, "Muon g-2: An Interplay between Beam Dynamics and a Muon Decay Experiment at the Precision Frontier", invited talk, Proc. 10th Intl. Part. Accel. Conf.,WEYYPLS1, Melbourne, Australia (2019).
- M.J. Syphers and F. Zimmermann, "Accelerator Physics of Colliders", in M. Tanabashi *et al.* (Particle Data Group), Phys. Rev. D **98**, 030001 (2018).
- *D. Stratakis,* et al., Accelerator performance analysis of the Fermilab Muon Campus, *Phys. Rev. Accel. Beams* **20**, *111003 (2017).*
- *V. Anastassopoulos, et al.,* A Storage Ring Experiment to Detect a Proton Electric Dipole Moment,", *Rev. Sci. Inst.* **87**, *115116 (2016).*
- *I. Logashenko, et al.,* The Measurement of the Anomalous Magnetic Moment of the Muon at Fermilab, *J. Phys. Chem. Ref. Data* **44**, *031211 (2015).*
- *G.E. Annala, D.J. Harding, M.J. Syphers,* Coil Creep and Skew-Quadrupole Field Components in the Tevatron, *Jour. Inst.* **7** *T03001 (2012) 1-16.*
- *R. Miyamoto, S.E. Kopp, A. Jansson, M.J. Syphers,* Parameterization of the Driven Betatron Oscillation, *Phys. Rev. ST-AB* **11**, *084002 (2008).*

TEACHING

University Semester Courses –
Graduate level introductory Accelerator Physics: Northern Illinois (2016-19); Michigan State (2011); North Texas (1991); Texas (1990); Northwestern (1989).
Introductory Physics: Michigan State (2012-2015).

U.S. Particle Accelerator School (credit awarded by host institutions) –
Undergraduate Courses: Old Dominion (2018, 2015), Texas (2016, 2012, 1998), California–Berkeley (2005), Indiana (2003), Rice (2001), Vanderbilt(1999), Washington (1997)
Graduate Level Courses: Accelerator Design – Northern Illinois (2019), Michigan State (2012), UCLA (1994); *Beam Optics* – California–Santa Cruz (2008); *Accelerator Physics* – Stanford (1992), Harvard (1990), Cornell (1988)

ADDITIONAL

Fellow, American Physical Society
Member (elected), Exec. Comm., Div. Physics of Beams, American Physical Society
Member, High Energy Physics Advisory Panel, Dept. of Energy/Natl. Science Found.
Deputy Director, Northern Illinois Center for Accelerator and Detector Development
Graduate, Strategic Lab Leadership Program, U. Chicago Booth School of Business