

## REINHARD A. SCHUMACHER

### Professional Experience

CARNEGIE MELLON UNIVERSITY	Pittsburgh, Pennsylvania
Professor of Physics	6/99 - present
Assistant & Associate Professor of Physics	8/87 - 6/99
PAUL SCHERRER INSTITUTE	Villigen, Switzerland
(SWISS INSTITUTE FOR NUCLEAR RESEARCH)	
Post-Doctoral Research Physicist	10/83 - 9/87
WILLIAM H. BATES LINEAR ACCELERATOR	Middleton, Massachusetts
Research Assistant	9/78 - 8/83
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Cambridge, Massachusetts
Ph.D. Physics	September 1983
CASE WESTERN RESERVE UNIVERSITY	Cleveland, Ohio
B.S. Physics	May 1978

### Honors

- Elected to Fellowship in the American Physical Society, November 2014.
- The Julius Ashkin Award of the Mellon College of Science, Carnegie Mellon University, for excellence in undergraduate teaching, May 1995.
- Peter T. Demos Award for achievement in Graduate Student Research at the MIT-Bates Linear Accelerator, December 1984.

### Selected Professional Activities

2017:	Chair: APS Division on Nuclear Physics Pittsburgh meeting local organizing committee
2016:	NSF Experimental Nuclear Physics Review Panel Jefferson Lab Users Group Board of Directors Nominating Committee, member
2015-2017	Physical Review C Editorial Board
2014- present:	Member of the Jefferson Lab GlueX Collaboration
2014:	DOE review for Lattice Quantum Chromodynamics (LQCD-ext) project, Fermilab
2002-2012:	Member: Mainz University and Bonn University (Germany) Joint Program Advisory Committee for the MAMI and ELSA accelerator labs.
2003- present:	Hypernuclear & Strange Particle Physics "HYP", International Organizing Committee
2012:	Panel member: Deutsche Forschungsgemeinschaft (DFG) German Research Foundation review "Subnuclear Structure of Matter", Bonn, Germany
2009:	Excited Baryon Analysis Center (EBAC) review committee, Jefferson Lab.
2002, 2005:	Organizing Committee: NSTAR 2005 – Pittsburgh and Tallahassee
2000, 2003:	Member: DOE review board for the MIT/Bates BLAST program.
2002:	Session organizer: "XVI Conf. on Particles and Nuclei (PANIC'02)", Osaka, Japan.
1998-2001:	Divisional Associate Editor for Nuclear Physics, Physical Review Letters
2001:	MIT Laboratory for Nuclear Science review board for the DOE
1999-2001:	Chairman of the CLAS Collaboration at Jefferson Laboratory
1995-1997:	Member: Jefferson Laboratory (TJNAF) Users' Group Board of Directors
1988- present:	Member of the Jefferson Lab CLAS Collaboration
1985-1987:	Member of the CERN New Muon Collaboration (NMC)

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### Selected Publications

- R. Dickson, R.A. Schumacher *et al.* (CLAS Collaboration), *Photoproduction of the  $f_1(1285)$  Meson*, [Physical Review C 93, 065202 \(2016\)](#).
- K. Moriya, R. A. Schumacher *et al.* (CLAS Collaboration), *Spin and Parity Measurement of the  $\Lambda(1405)$  Baryon*, [Physical Review Letters 112, 082004 \(2014\)](#).
- H. Y. Lu, R. A. Schumacher *et al.* (CLAS Collaboration), *First Observation of the  $\Lambda(1405)$  Line Shape in Electroproduction*, [Physical Review C 88, 045202 \(2013\)](#).
- K. Moriya, R. A. Schumacher *et al.* (CLAS Collaboration), *Differential Photoproduction Cross Sections of the  $\Sigma(1385)$ ,  $\Lambda(1405)$ , and  $\Lambda(1520)$* , [Physical Review C 88, 045201 \(2013\)](#).
- R. A. Schumacher and K. Moriya, *Isospin Decomposition of the Photoproduced  $\Sigma\pi$  System Near the  $\Lambda(1405)$* , [Nuclear Physics A 914, 51 \(2013\)](#).
- K. Moriya, R. A. Schumacher *et al.* (CLAS Collaboration), *Measurement of the  $\Sigma\pi$  Photoproduction Line Shapes Near the  $\Lambda(1405)$* , [Physical Review C 87, 035206 \(2013\)](#).
- G. Bernero, J. Olitsky, and R. A. Schumacher, *Atmospheric Dependence of the Stopping Cosmic Ray Muon Rate at Ground Level*, [Journal of Physics G: Nucl. Part. Phys. 40, 065203 \(2013\)](#).
- R. A. Schumacher and M. M. Sargsian, *Scaling and Resonances in Elementary  $K^+ \Lambda$  Photoproduction*. [Physical Review C 83, 025207 \(2011\)](#).
- R. Schumacher, *Polarization in Hyperon Photo- and Electro-production*, [The European Physical Journal A 35, 299 \(2008\)](#).
- R. Bradford, R. A. Schumacher, *et al.*, *First Measurement of Beam-Recoil Observables  $C_x$  and  $C_z$  in Hyperon Photoproduction*, (CLAS Collaboration) [Physical Review C 75, 035205 \(2007\)](#).
- R. Bradford, R. A. Schumacher, J.W.C. McNabb, L. Todor, *et al.*, *Differential Cross Sections for  $\gamma+p \rightarrow K^+ + Y$  for  $\Lambda$  and  $\Sigma^0$  Hyperons*, (CLAS Collaboration) [Physical Review C 73, 035202 \(2006\)](#).
- R. A. Schumacher, *The Rise and Fall of Pentaquarks in Experiments*, [AIP Conference Proceedings 842, 409 \(2006\)](#).
- J. McNabb, R. A. Schumacher, L. Todor, *et al.*, *Hyperon Photoproduction in the Nucleon Resonance Region*, (CLAS Collaboration) [Physical Review C 69, 042201 \(2004\)](#).
- Reinhard A. Schumacher, *Strangeness Production and Other Recent Results from Hall B at Jefferson Lab*, [The European Physical Journal A - Hadrons and Nuclei 18, 371 \(2003\)](#).
- B.A. Mecking, *et al.*, *The CEBAF Large Acceptance Spectrometer (CLAS)*, [Nuclear Instruments and Methods A 503, 513 \(2003\)](#).

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Stephan A. Roth and Reinhard A. Schumacher, *A Computer-Controlled Tension Monitoring System for Drift Chamber Wires*, [Nuclear Instruments and Methods A 369, 215 \(1996\)](#).

Reinhard A. Schumacher, *Possible Violation of the Delta I = 1/2 Rule in Non-Mesonic Hypernuclear Weak Decay*, [Nuclear Physics A 547, 143 \(1992\)](#).

Reinhard A. Schumacher, *Special Relativity and the Michelson-Morley Interferometer*, [American Journal of Physics 62, 609 \(1994\)](#).

R.A. Schumacher, P.A. Amaudruz, C.H.Q. Ingram, U. Sennhauser, H. Breuer, N.S. Chant, A.E. Feldman, B.S. Flanders *et al.*, *Exclusive Quasi-Deuteron Absorption of Pions on  $^{16}\text{O}$  and  $^{18}\text{O}$  at 116 MeV*, [Phys.Rev. C38, 2205-2220 \(1988\)](#).

R.A. Schumacher, J.L. Matthews, W.W. Sapp, R.S. Turley, G.S. Adams, R.O. Owens, *Two-body Photodisintegration of  $^4\text{He}$  in the 100 MeV - 360 MeV Region.*, [Phys.Rev. C33, 50-58 \(1986\)](#).

R.A. Schumacher, G.S. Adams, D.R. Ingham, J.L. Matthews, W.W. Sapp, R.S. Turley, R.O. Owens, B.L. Roberts, *Cu( $\gamma$ , p)X Reaction at  $E_\gamma = 150$  MeV and 300 MeV.*, [Phys.Rev. C25, 2269-2277 \(1982\)](#).

E. R. Kinney, J. L. Matthews, W.W. Sapp, R.A. Schumacher, R.O. Owens, *A Simple Light Guide for Coupling to Thin Scintillator Sheets*, [Nuclear Instruments and Methods 185, 189 \(1981\)](#).