

CURRICULUM VITAE

Gabriel Niculescu

PERSONAL DATA

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EDUCATION

December 1998: Ph.D. degree: **Hampton University**

Separation of the longitudinal and transverse terms of the cross-section in the $H(e,e')K^+ \Lambda$ reaction

May 1991: Engineer Physicist (M.S. equivalent) degree: **Bucharest University**

Computation of Drift Velocity in Gases and Gas-Mixtures for Drift Chambers (including high pressure systems)

ACADEMIC POSITIONS

August 2003 – present: Assistant Professor, James Madison University

NSF GRANTS

June 2006 – May 2007: Co-PI on NSF grant “*Probing Subatomic Physics Via Lepton Interactions*”

June 2007 – May 2010: Co-PI on NSF grant “*Probing Subatomic Physics Via Lepton Interactions*”

2007 – 2010: Co-PI on NSF grant “*MRI: Collaborative Research: Development of the Detector Package for the Super HMS in Hall C at JLab*”

2008 -- 2010: PI on NSF grant “*MRI: Collaborative Proposal for the Development of the Pre-shower Calorimeter*”

For specific projects additional funds were obtained via Memorandum(s) of Understanding (MOUs) with Jefferson Lab and Fermilab.

RESEARCH EXPERIENCE

1996 – present: Participated in 21 Hall C experiments at Jefferson Lab:

E89008 – *Inclusive Scattering for Nuclei at $x > 1$ and High Q^2* ;

E89012 – *Two-Body Photodisintegration of the Deuteron at Forward Angles and Photon Energies between 1.5 and 4.0 GeV*;

E91003 – *A Study of Longitudinal Charged Pion Electroproduction in 2-D, 3-He and 4-He;*
 E91013 – *The Energy Dependence of Nucleon Propagation in Nuclei as Measured in the (e,e'p) Reaction;*
 E91016 – *Electroproduction of Kaons and Light Hypernuclei;*
 E93018 - *Longitudinal/Transverse Cross Section Separation in $p(e,e'K^+)\Lambda, \Sigma$ for $0.5 < Q^2 < 2.0$ (GeV/c)², $W > 1.7$ GeV, and $t_{\min} > 0.1$ (GeV/c)²;*
 E93021 – *The Charged Pion Form Factor;*
 E94014 – *The Delta(1232) Form Factor at High Momentum Transfer;*
 E94110 – *Measurement of $R = \sigma_L / \sigma_T$ in the Resonance Region;*
 E94-139 – *Measurement of the Nuclear Dependence and Momentum Transfer Dependence of the Quasielastic (e,e'p) Scattering at Large Momentum Transfer,*
 E96-003 – *Two-Body Photodisintegration of the Deuteron at High Energy*
 E-00-002 – *F_2N at Low Q^2*
 E-01-002 – *Baryon Resonance Electroproduction at High Momentum Transfer*
 E-00-116 – *Duality at Intermediate Q^2*
 E01-104 – *The Charged Pion Form Factor*
 E00-108 – *Duality in Meson Electroproduction*
 E02-109 and E04-001 – *Measurements of L-T Separated Structure Functions on Deuterium and Nuclei in the Resonance Region.*
 E05-017 – *A measurement of two-photon exchange in unpolarized elastic electron-proton scattering.*
 E06-009 – *Measurement of $R = \sigma_L / \sigma_T$ on Deuterium in the nucleon resonance region and beyond.*
 E04-001 – *Measurement of F_2 and $R = \sigma_L / \sigma_T$ on nuclear targets in the nucleon resonance region and beyond*

1990 – present: Participated in 65 Hall B experiments at Jefferson Lab:

E-89-004 – *Electromagnetic Production of Hyperons*
 E-89-015 – *Study of Coincidence Reactions in the Dip and Delta-Resonance Regions*
 E-89-017 – *Electroexcitation of the $\Delta(1232)$ in Nuclei*
 E-89-024 – *Radiative Decays of the Low-Lying Hyperons*
 E-89-027 – *Coincidence Reaction Studies with the CLAS Detector*
 E-89-031 – *Study of Multi-Nucleon Knockout with the CEBAF Large Acceptance Spectrometer*
 E-89-032 – *Study of the Local Properties of Nuclear Matter in Electron-Nucleus and Photon-Nucleus Interactions with Backward Particle Production Using the CLAS Detector*
 E-89-036 – *Study of Short-Range Properties of Nuclear Matter in Electron-Nucleus and Photon-Nucleus Interactions with Backward Particle Production using the CLAS Detector*
 E-89-037 – *Electroproduction of the $P_{33}(1232)$ Resonance*
 E-89-038 – *Measurements of $p(e,e'\pi^+)n$, $p(e,e'p)\pi^0$, and $n(e,e'\pi^-)p$ in the Second Resonance Region*
 E-89-039 – *Amplitudes for the $S_{11}(1535)$ and $P_{11}(1710)$ Resonances from an $ep \Rightarrow e'pn$ experiment*
 E-89-042 – *Measurement of the Electron Asymmetry in $p(e,e'p)\pi^0$ and $p(e,e'\pi^+)$ in the Mass Region of the $P_{33}(1232)$*
 E-89-043 – *Measurements of the Electroproduction of the γ (gnd), $\gamma^*(1520)$ and $f_0(975)$ via the $K^+ K p$ and $K^+ \pi^- p$ Final States*
 E-89-045 – *Study of Kaon Photoproduction on Deuterium*

E-91-002 – *The study of Excited Baryons at High Momentum Transfer with the CLAS Spectrometer*

E-91-008 – *Photoproduction of η and η' Mesons*

E-91-014 – *Quasi-Free Strangeness Production in Nuclei*

E-91-023 – *Measurement of Polarized Structure Functions in Inelastic Electron Proton Scattering using the CEBAF Large Acceptance Spectrometer*

E-91-024 – *Search for "Missing" Resonances in the Electroproduction of Omega Mesons*

E-93-006 – *Two Pion Decay of Electroproduced Baryon Resonances*

E-93-008 – *Inclusive η Photoproduction in Nuclei*

E-93-009 – *The Polarized Structure Function G_{1n} and the Q^2 Dependence of the Gerasimov-Drell-Hearn Sum Rule for the Neutron*

E-93-012 – *Electroproduction of Light Quark Mesons*

E-93-017 – *Study of $\gamma d \rightarrow pn$ and $\gamma d \rightarrow p\Delta^0$ Reactions for Small Momentum Transfers*

E-93-022 – *Measurement of the Polarization of the $\phi(1020)$ in Electroproduction*

E-93-030 – *Measurement of the Structure Functions for Kaon Electroproduction*

E-93-031 and E-01-112 – *Photoproduction of Vector Mesons at High t*

E-93-033 – *A Search for Missing Baryons Formed in $\gamma p \rightarrow p\pi^+\pi^-$ Using the CLAS at CEBAF*

E-93-036 – *Measurement of Single Pion Electroproduction from the Proton with Polarized Beam and Polarized Target Using CLAS*

E-93-044 – *Photoreactions on ^3He*

E-94-003 – *Study of the $\Delta(1232)$ Using Double Polarization Asymmetries*

E-94-005 – *Determination of the $N\Delta$ Axial Vector Transition Form Factor $G_A^{N\Delta}$ from the $ep \rightarrow e'\Delta^{++}\pi^-$*

E-94-008 – *Photoproduction of η and η' Mesons from Deuterium*

E-94-015 – *Study of the Axial Anomaly using the $rp\pi^+ \rightarrow \pi^+\pi^0$ Reaction near Threshold*

E-94-016 – *A Measurement of Rare Radiative Decays of the ϕ Meson*

E-94-017 – *The Neutron Magnetic Form Factor from Precision Measurements of the Ratio of Quasielastic Electron-Neutron to Electron-Proton Scattering in Deuterium*

E-94-019 – *Measuring Nuclear Transparency in Double Rescattering Processes*

E-94-102 – *Electron Scattering from a High Momentum Nucleon in Deuterium*

E-94-103 – *The Photoproduction of Pions*

E-94-109 – *Photoproduction of the Rho Meson from the Proton with Linearly Polarized Photons*

E-95-003 – *Measurement of K_{zero} Electroproduction*

E-97-001 – *Electroproduction of the $pp\pi^-$ System off the Deuteron beyond the Quasifree Region*

E-98-104 – *Measurement of the polarized electron beam asymmetry on exclusive reactions in nuclei with CLAS*

E-98-109 – *Photoproduction of phi Mesons with Linearly Polarized Photons*

E-99-005 – *Meson Spectroscopy in Few-Body Decays*

E-99-006 – *Polarization observables in the $^1\text{H}(e,e'K^+)A$ Reaction*

E-99-013 – *Photoproduction of omega mesons off protons with linearly polarized photons*

E-99-105 – *Deeply Virtual Electroproduction of Vector Mesons*

E-99-107 – *N^* Excitations at High Q^2 in the $p\pi$, p , and $n\pi^+$ Channels*

E-99-108 – *N^* Excitations at High Q^2 in the Two-Pion Channel*

E-00-112 – *Exclusive Kaon Electroproduction in Hall B at 6 GeV*

E-01-017 – *Extension to E99-005: Meson Spectroscopy in Few-Body Decays*

E-02-104 – *Quark Propagation through Cold QCD Matter*
 E-02-110 – *Q^2 Dependence of Nuclear Transparency for Incoherent π^0 Electroproduction*
 E-02-112 – *Search for Missing Nucleon Resonances in the Photoproduction of Hyperons Using a Polarized Photon Beam and A Polarized Target*
 E-03-006 – *The GDH Sum Rule with nearly real photons and the proton g_1 structure function at low momentum transfer*
 E-03-012 – *The Structure of the Free Neutron via Spectator Tagging*
 E-03-105 – *Pion Photoproduction from a Polarized Target*
 E-03-113 – *Investigation of Exotic Baryons States in Photoproduction Reactions with CLAS*
 E-04-005 – *Search for New Forms of Hadronic Matter in Photoproduction*
 E-04-010 – *Search for Exotic Cascades with CLAS Using an Untagged Virtual Photon Beam*
 E-04-017 – *Study of Pentaquark States in Photoproduction off Protons*
 E-04-021 – *Spectroscopy of Exotic Baryons with CLAS: Search for Ground and Excited States*
 E-04-116 – *Beyond the Born Approximation: A Precise Comparison of Positron-Proton and Electron-Proton Elastic Scattering in CLAS*
 E-06-003 – *Deeply Virtual Compton Scattering with CLAS at 6 GeV*

1998 – present: Member in the CLAS collaboration at Jefferson Lab.

- Active involvement in data acquisition and analysis, detector calibration and maintenance, as well as detector development and construction.
- Regularly (2-3/year) reviewing (Ph-D dissertation type) data analysis documents and paper manuscripts.
- Leading role in the data analysis of Sigma- hyperon photoproduction. This analysis was completed during the summer of 2009 and the resulting paper is under collaboration review.
- Co-spokesperson on the Jefferson Lab experiment E12-06-117 “Quark Propagation and Hadron Formation”.

2002 – present: Collaborator in the following Fermilab experiments/projects: E871 (HyperCP), E907 (MIPP), and E938 (Minerva). For more info about the Minerva Collaboration & experiments see: D. A. Harris et al *Neutrino Scattering Uncertainties and Their Role in Long Baseline Oscillation Experiments*. ePrint Archive: **hep-ex/0410005** and D. Drakoulakos et al *Proposal to Perform a High-Statistics Neutrino Scattering Experiment Using a Fine-Grained Detector in the NUMI Beam*. FERMILAB-PROPOSAL-0938, Feb 2004. e-Print Archive: **hep-ex/0405002**

2003 – present: Member in the Hall B **BoNuS** Collaboration. The JMU group is involved in the development, building, and operating the BoNuS detector that was used in Hall B at Jefferson Lab to detect low energy (spectator protons). This detector enables the direct study of the neutron structure. More info can be found at http://www.jlab.org/~kuhn/BoNuS_Welcome.html.

2002 – Summer 2003: Postdoctoral associate at the University of Virginia. While at UVA I worked with the high energy group of Drs. Ken Nelson and Craig Dukes. Collaborator on several Fermilab experiments/projects: E871 (HyperCP), E907 (MIPP), and (the cancelled) E921 (CKM). My involvement with these experiments covers all aspects of designing, simulating, building, and testing detectors for high energy experiments, as well as analyzing

large (Billions of triggers) sets in search for parity violation signatures in hyperon decays. As part of these analysis I was in charge of the procurement, deployment, and operation of an array (farm) of high performance computers at the University of Virginia, used to supplement the (super)computer arrays used to complement the computing facilities the experiments used at Fermilab and at the National Energy Research Scientific Computing Center (NERSC, Berkeley, California).

1998 – 2002: Postdoctoral associate at Ohio University. Active involvement in various CLAS related analysis and maintenance tasks:

- Leading role in the analysis of the CLAS kaon electroproduction data (experiment E93-030, "Measurement of the structure functions for kaon electroproduction"). This analysis involved the extraction of all four structure functions accessible with unpolarized beams and targets.
- Monte Carlo simulation group
- drift chamber maintenance and repair
- 2000-2001: CLAS librarian (maintenance of 500,000+ lines of Fortran/C/C++ code),
- leader of the **e1d** calibration/data reduction group ~3.5 Billion triggers, ~13 TerraBytes raw data
- Co-spokesperson on the Jefferson Lab experiment **E00 - 112** "Exclusive Kaon Electroproduction in Hall B at 6-GeV". Experiment ran successfully, results were published in PRL.
- Co-spokesperson on the Jefferson Lab experiment **E00 – 108** "Duality in Meson Electroproduction" (Hall C). Results published in PRL.

1996 – 1998—Graduate student at Hampton University

- Analysis of Jefferson Lab **E93-018** $H(e,e'K^+)\Lambda$ data for my doctoral thesis. The data was taken four different momentum transfer values, $Q^2 = (0.52, 0.75, 1.00 \text{ and } 2.00 \text{ (GeV/c)}^2)$, and for each settings measurements at three different values of the virtual photon polarization, ε , were performed. This enabled the extraction of the transverse and longitudinal parts of the cross-section via a Rosenbluth separation. Results of this analysis (transverse and longitudinal parts of the cross-section) were published in Physical Review Letters and, at that time more, than doubled the existing world data set, with significantly smaller uncertainties.
- The t -dependence of the $H(e,e'K^+)\Lambda$ cross-section as measured during **E93-018** was also studied and the (model dependent) kaon form factor was extracted via a Chew-Low extrapolation.
- Involvement the extraction of QCD moments and higher twist effects from the global (e,e') inclusive data acquired in Hall C in 1996. Work published in a series of PRL articles that have been cited extensively since.
- Contributed various pieces of software to both the online and offline (including Monte Carlo simulations) analysis programs used in Hall C (fitting of spectrometer matrix elements, pathlength corrections and coincidence timing, meson electroproduction & decay simulations, etc).

1994 -- 1995: Participated in experiment IUCF E387 – "*Measurements of the Differential Cross*

Sections and Polarization Transfer Observables in the 2-H(p,n) reaction” at Indiana University Cyclotron Facility (IUCF). Results from this analysis have been published in IEE Transactions on Nuclear Science (1998).

Extensive hardware experience accumulated in Hall C at Jefferson Lab:

- maintenance and repair of the High Momentum Spectrometer (HMS) drift chambers,
- studies of resonant cavities used for beam current/position monitoring (also theoretical studies of cavity properties and stability),
- refurbishing and deployment of an array of neutron bars and veto scintillator for monitoring the neutral background in Hall C,
- measurement of the beam halo (using NaI(Tl) detectors). }

Summer 1992 – Fall 1993: Testing, installation, repairs, and commissioning of the HMS drift chambers in Hall C at Jefferson Lab.

Timing response studies (at the NuHEP Center at Hampton University) of straw tube drift chambers and microstrip chambers using ultraviolet-light-ionized photoelectrons.

Summer 1990 and Spring 1991: Thesis work at the Joint Institute for Nuclear Research, (JINR) Dubna, Russia. Software development for the theoretical calculation of the drift velocity in gases and gas mixtures, for drift chamber use. In particular the focus was on computing drift velocities in gases at very high pressure (i.e. 100~atmospheres). The whole effort was geared towards the building of a vertex detector to be used at the (now defunct) SSC.

TEACHING EXPERIENCE

2003 – present

GSCI101, Physics, Chemistry an the Human Experience, James Madison University

GSCI104, Scientific perspectives, James Madison University

PHYS140L, Introductory Laboratory, James Madison University

PHYS150L, Introductory Laboratory II, James Madison University

PHYS150, College Physics II, James Madison University

PHYS215, Energy and the Environment, James Madison University

PHYS240, University Physics I, James Madison University

PHYS247, Data Acquisition and Analysis techniques, James Madison University

PHYS397, Introduction to Robotics, James Madison University

PHYS398, Problems in Physics, James Madison University

2002 -- Summer 2003: Working with and supervising the research of University of Virginia graduate and undergraduate students on the UVA campus.

1999 – August 2002: Supervising Ohio University graduate students at Jefferson Lab.

1993: Electricity and Magnetism (recitation), Hampton University

1992: General Physics Lab, Hampton University

OUTREACH

1997 – present: Judge for the Virginia Junior Academy of Science Finals

2005 -- present: Judge for the Virginia Symposium on Science and Humanities (physics, math, computer science)

2005 – 2007: Conceived, organized, and implemented the Electronics section of the JMU Department of Physics' High School Outreach program concentrating on robot building.

2007 -- present: Judge for First Lego League Regional Tournament

2009: Organizer and lecturer at the Virginia Initiative for Robotics in STEM Education (VIRSE) workshop held at James Madison University in July 2009.

ACADEMIC HISTORY

June 1990: United States Particle Accelerator School, (USPAS), Harvard University

September 1991: First Balkan School of Physics, Istanbul, Turkey

June 1993: United States Particle Accelerator School, (USPAS), Harvard University

June 1994: Hampton University Graduate Studies at CEBAF, Hampton University

June 1994: United States Particle Accelerator School (USPAS), Indiana University

PUBLICATIONS

1. Yu. Grishkin et al., *Preliminary Study of a New Type of Gas Microstrip Chamber on a Sapphire Substrate*, Nucl. Inst. Meth. **A354** (1995) 309
2. K. Baker et al., *Drift Chambers for Hall C at CEBAF*, Nucl. Inst. Meth. **A367** (1995) 92
3. T. Angelescu et al., *Kaon Electroproduction at CEBAF*, Roum. Rep. Phys. **48** (1996) 347
4. T. Angelescu et al., *Modelling Kaon Electroproduction on Protons and Light Nuclei*, Fizika **B5** (1996) 113
5. I. Niculescu et al., *Calibration of a Neutron Polarimeter to Measure the Electric Form Factor of the Neutron*, IEEE, Trans. Nucl. Sci. **45** (1998) 68
6. D. Abbott et al., *Quasifree ($e, e'p$) Reaction and Proton Propagation in Nuclei*, Phys. Rev. Lett., **80** (1998) 5072
7. K. Baker et al., *Associated Lambda Production at Jefferson Lab*, Nucl.Phys. **A639** (1998) 189
8. D. Abbott et al., *Kaon Electroproduction on Deuterium*, Nucl.Phys. **A639** (1998) 197
9. G. Niculescu et al., *Longitudinal and Transverse Cross Sections in $p(e, e'K^+)A$* , Phys. Rev. Lett. **81** (1998) 1805
10. T. Angelescu et al., *Polarization measurements in kaon electroproduction*, Rom. Rep. Phys., **50** (1998), 497
11. J. Arrington et al., *Inclusive Electron – Nucleus Scattering at Large Momentum Transfer*, Phys. Rev. Lett. **82** (1999) 2056
12. C. Armstrong et al., *Electroproduction of the $S_{11}(1535)$ Resonance at High Momentum Transfer*, Phys. Rev. **D60** (1999) 052004
13. V.V. Frolov et al., *Electroproduction of the $\Delta(1232)$ Resonance at High Momentum Transfer*, Phys. Rev. Lett. **82** (1999) 45
14. C. Bochna et al., *Measurement of Deuteron Photodisintegration up to 4.0 GeV*, Phys. Rev. Lett. **81** (1998) 4576
15. I. Niculescu et al., *Extraction of Higher Twists from Electron-Proton Inclusive Data at Large Bjorken x* , Phys. Rev. **D60** (1999) 94001
16. D.G. Meekins et al., *Coherent π^0 Photoproduction on the Deuteron up to 4 GeV*, Phys. Rev. **C60** (1999) 052201

17. T. Angelescu et al, *K⁺ electroproduction in exclusive e(pol.) + p --> e'(pol.) + K⁺ + Lambda reaction*, Rom. Rep. Phys. **51** (1999) 551
18. D. Dutta et al., *Separated Spectral Functions for the Quasifree C-12(e,e'p) Reaction*, Phys. Rev. **C61** (2000) 061602(R).
19. M.D. Mestayer, R. Feuerbach, K.H. Hicks, G. Niculescu, *Hyperon electroproduction with CLAS*, Nucl. Phys. A **663** (2000) 432
20. I. Niculescu et al., *Evidence for Valence Quark – Hadron Duality*, Phys. Rev. Lett. **85** (2000) 1182
21. I. Niculescu et al., *Experimental Verification of Quark – Hadron Duality*, Phys. Rev. Lett. **85** (2000) 1186
22. J. Volmer et al., *Measurement of the Charged Pion Electromagnetic Form Factor*, Phys. Rev. Lett. **87**, (2001) 1713.
23. C. Armstrong et al., *Moments of the Proton Structure Function at Low Q²*, Phys. Rev. **D63** (2001) 094008
24. J. Reinhold et al., *Electroproduction of kaons and light hypernuclei*, Nucl. Phys. **A684** (2001) 470.
25. K. Lukashin et al., *Exclusive Electroproduction of ϕ Mesons at 4.2 GeV*, Phys. Rev. **C63** (2001) 065205.
26. J. Arrington et al., *x- and ξ Scaling of the Nuclear Structure Function at Large x*, Phys. Rev. **C64** (2001) 014602
27. E. C. Schulte et al., *Measurement of the high energy two – body deuteron photodisintegration differential cross section*, Phys. Rev. Lett. **87** (2001) 102302.
28. B. Zeidman et al., *Electroproduction of Kaons on Light Nuclei*, Nucl. Phys. **A691** (2001) 37
29. S. P. Barrow et al., *Electroproduction of the Lambda(1520) hyperon*, Phys. Rev. **C64** (2001) 044601.
30. S. Stepanyan et al., *First observation of exclusive deeply virtual Compton scattering in polarized electron beam asymmetry measurements*, Phys. Rev. Lett. **87** (2001) 182002.
31. K. Garrow et al., *Nuclear Transparency from Quasielastic A(e,e'p) Reactions up to Q²=8.1(GeV/c)²*, Phys. Rev. **C66** (2002) 044613
32. K. Joo et al, *Q² dependence of quadrupole strength in the gamma* p ---> Delta+(1232) ---> p pi0 transition*, Phys. Rev. Lett. **88** (2002) 122001
33. R. De Vita et al., *First Measurement of the Double Spin Asymmetry in Polarized-e Polarized-p → e'π⁺ n in the Resonance Region*, Phys. Rev. Lett **88** (2002) 082001
34. D. Gaskell et al., *Measurement of Longitudinal and Transverse Cross Sections in the He3(e,e'π⁺)H3 Reaction at W = 1.6 GeV*, Phys. Rev. **C65** (2002) 011001.
35. M. Dugger et al., *Eta Photoproduction on the Proton for Photon Energies from 0.75 GeV to 1.95 GeV*, Phys. Rev. Lett. **89** (2002) 222002.
36. D. Gaskell et al., *Longitudinal Electroproduction of Charged Pions from H-1, H-2, He-3*, Phys. Rev. Lett. **87** (2001) 202301
37. M. Ripani et al., *Measurement of ep → e'pπ⁺π⁻ and Baryon Resonance Analysis*. Phys. Rev. Lett. **91** (2003) 022002
38. D. S. Carman et al., *First Measurement of Transferred Polarization in the Exclusive Polarized-e → e'K⁺pol-Λ reaction*. Phys. Rev. Lett. **90** (2003) 131804
39. J. Yun et al, *Measurement of inclusive spin structure functions of the deuteron*, Phys. Rev. **C67** (2003) 055204

40. H. Avakian et al, *Measurement of beam-spin asymmetries for π^+ + electroproduction above the baryon resonance region*, Phys. Rev. **D69** (2004) 112004
41. K.S. Egiyan et al. *Observation of Nuclear Scaling in the $A(e, e')$ Reaction at $x_B > 1$* , Phys. Rev. **C68** (2003) 014313
42. K. Joo et al., *Measurement of the Polarized Structure Function $\Sigma(LT')$ for $p(\text{Polarized-}p, e'p) \pi^0$ in the DELTA(1232) Resonance Region*. Phys. Rev. **C68** (2003) 032201.
43. M. Osipenko et al. *A Kinematically Complete Measurement of the Proton Structure Function F_2 in the Resonance Region and Evaluation of its Moments*. Phys. Rev. **D67** (2003) 092001
44. D. Dutta et al. *A Study of the Quasielastic $(e, e'p)$ Reaction on C-12, FE-56 and AU-97*. Phys. Rev. **C68** (2003) 064603
45. J. W. C. McNabb et al, *Hyperon photoproduction in the nucleon resonance region*, Phys. Rev. **C69** (2004) 042201
46. R. Fatemi et al, *Measurement of the proton spin structure function $g(1)(x, Q^{*2})$ for Q^{*2} from 0.15 to 1.6 GeV^{*2} with CLAS*, Phys. Rev. Lett. **91** (2003) 222002
47. A. Biselli et al, *Study of $e p \rightarrow e p \pi^0$ in the Delta(1232) mass region using polarization asymmetries*, Phys. Rev. **C68** (2003) 035202
48. S. Stepanyan et al *Observation of an Exotic $S=+1$ Baryon in Exclusive Photoproduction from the Deuteron*. Phys.Rev.Lett. **91** (2003) 252001
49. R. A. Niyazov et al., *Two Nucleon Momentum Distributions Measured in $\text{He-3}(E, E' PP)N$* . Phys.Rev.Lett.**92** (2004) 052303, Erratum-ibid.**92** (2004) 099903
50. K. McCormick et al., *Tensor Polarization of the Phi Meson Photoproduced at High t* . Phys.Rev.**C69** (2004) 032203
51. V. Kubarovsky et al., *Observation of an Exotic Baryon with $S=+1$ in Photoproduction from the Proton*. Phys.Rev.Lett.**92** (2004) 032001, Erratum-ibid.**92** (2004) 049902
52. M. E. Christy et al *Measurements of Electron Proton Elastic Cross-Section for $0.4 < Q^2 < 5.5 (\text{GeV}/c)^2$* . Phys. Rev. **C70** (2004) 015206
53. P. Ambrozewicz et al., *Near Threshold Electroproduction of the Omega Meson at $Q^2=0.5\text{-GeV}^2$* . Phys.Rev.**C70** (2004) 035203
54. A. V. Stavinisky et al *Proton Source Size Measurements in the $eA \rightarrow e' ppX$ Reaction*. Phys. Rev. Lett. **93** (2004) 192301
55. P. Rossi et al., *Onset of asymptotic scaling in deuteron photodisintegration* Phys.Rev.Lett. (2005) 012301.
56. M. Mirazita et al *Complete Angular Distribution Measurements of Two Body Deuteron Photodisintegration Between 0.5-GEV and 3-GEV*. Phys.Rev.**C70** (2004) 014005
57. D. Protopopescu et al., *Survey of $A(LT')$ Asymmetries in Semi-Exclusive Electron Scattering on He-4 and C-12*. Nucl.Phys.**A748** (2005) 3572005
58. K. Joo et al., *Measurement of the Polarized Structure Function $\Sigma(LT')$ for $P(\text{Polarized-}e, e' \pi^+)N$ in the Delta(1232) Resonance Region*. Phys.Rev.**C70** (2004) 042201
59. C. Hadjidakis et al. *Exclusive Rho0 Meson Electroproduction from Hydrogen at CLAS*. Phys.Lett.**B605** (2005) 256
60. G. Warren et al *Measurement of the Electric Form-Factor of the Neutron at $Q^2 = 0.5\text{-GeV}^2/c^2$ and $1.0\text{-GeV}^2/c^2$* . Phys.Rev.Lett.**92** (2004) 042301

61. D. Protopopescu et al., *Survey of $A(LT\text{-prime})$ asymmetries in semi-exclusive electron scattering on He-4 and C-12* Nucl.Phys.A**748** (2005) 357
62. C. Hadjidakis et al., *Exclusive ρ^0 meson electroproduction from hydrogen at CLAS*. Phys.Lett.B**605** (2005) 256
63. S. Niccolai et al, *Complete measurement of three-body photodisintegration of He-3 for photon energies between 0.35-GeV and 1.55-GeV*, Phys. Rev. **C70** (2004) 064003
64. J.W. Price et al., *Exclusive photoproduction of the cascade (Ξ) hyperons*. Phys.Rev.C**71** (2005) 058201
65. F. Dohrmann, *Angular distributions for hyper He-3 He-4 bound states in the He-3 He-4($e, e\text{-prime } K^+$) reaction*, Phys. Rev. Lett **93** (2004) 242501
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