



Protected when completed

This is a draft version only. Do not submit to any funding organization. Only the final version from the History page can be submitted.

Dr. Garth M. Huber

Correspondence language: English

Contact Information

The primary information is denoted by (*)

Address

Mailing (*)

Department of Physics
University of Regina
3737 Wascana Parkway
Regina Saskatchewan S4S0A2
Canada

Telephone

Work (*) 001-306-5854240

Email

Work (*) huberg@uregina.ca



This is a draft version only. Do not submit to any funding organization. Only the final version from the History page can be submitted.

Protected when completed

Dr. Garth Huber

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes

Degrees

- 1988/2 Doctorate, Physics, The University of Regina
- 1984/5 Bachelor's Honours, Physics, The University of Regina
- 1984/5 Bachelor's, Mathematics, The University of Regina

User Profile

Research Specialization Keywords: Cherenkov Detector, Data Analysis Software, Deep Exclusive Meson Production, Electron Scattering, Experimental Methods, Hadronic Structure, Intermediate Energy Subatomic Physics, Non-perturbative QCD & Factorization, Pion Form Factor

Employment

- 2013/5 Executive Director
Canadian Institute of Nuclear Physics
- 2009/9 Visiting Faculty
Physics, Science / Seattle, University of Washington
Part-time, Visiting Professorship
Tenure Status: Non Tenure Track
Visitor at National Institute for Nuclear Theory (INT)
- 2003/7 Professor
Physics, Science, The University of Regina
Full-time, Professor
Tenure Status: Tenure
- 2003/1 - 2003/8 Visiting Professor
Physics - Hall C, Thomas Jefferson National Accelerator Facility
Full-time, Visiting Professorship
Tenure Status: Non Tenure Track
- 1997/7 - 2003/6 Associate Professor
Physics, Science, The University of Regina
Full-time, Associate Professor
Tenure Status: Tenure

1994/7 - 1997/6	Assistant Professor Physics, Science, The University of Regina Full-time, Assistant Professor Tenure Status: Tenure Track
1990/2 - 1994/6	Research Scientist and Adjunct Assistant Professor Physics, Science, The University of Regina Full-time, Adjunct, Assistant Professor Tenure Status: Non Tenure Track
1988/3 - 1990/1	Research Associate Cyclotron Facility, Science / Bloomington, Indiana University Full-time Tenure Status: Non Tenure Track

Research Funding History

Awarded [n=4]

2021/4 - 2026/3 Principal Investigator	Studies of hadron structure with electromagnetic probes, Grant Funding Sources: Natural Sciences and Engineering Research Council of Canada (NSERC) Subatomic Physics Individual Discovery Total Funding - 55,000 Portion of Funding Received - 550,000 Funding Competitive?: Yes
2020/4 - 2025/3 Co-applicant	The Canadian Institute of Nuclear Physics (CINP), Grant Funding Sources: Natural Sciences and Engineering Research Council of Canada (NSERC) Subatomic Physics Major Resources Support Total Funding - 385,000 Portion of Funding Received - 0 Funding Competitive?: Yes Co-applicant : Gericke, M; Grinyer, G; Jeon, Sangyong; Kanungo, R; Martin, J; Ruiz, C; Principal Applicant : Hackman, G
2021/4 - 2023/3 Co-investigator	Canadian Participation at the Electron-Ion Collider (EIC), Grant Funding Sources: Natural Sciences and Engineering Research Council of Canada (NSERC) Subatomic Physics Discovery Project Grant Total Funding - 147,000 Portion of Funding Received - 39,000 Funding Competitive?: Yes Co-investigator : Gericke, M; Hornidge, D; Mammei, J; Papandreou, Z; Principal Investigator : Deconinck, W
2018/4 - 2021/3 Co-applicant	CPP+, the MRS Application of the Centre for Particle Physics, Grant Funding Sources: Natural Sciences and Engineering Research Council of Canada (NSERC) Subatomic Physics Major Resources Support Total Funding - 1,291,885 Portion of Funding Received - 0

Funding Competitive?: Yes

Principal Applicant : Pinfeld, James

Completed [n=10]

2018/4 - 2021/3

Co-investigator

Investigating Hadron Structure with CB-TAPS at MAMI, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Project Grant

Total Funding - 405,000

Portion of Funding Received - 30,000

Funding Competitive?: Yes

Co-investigator : Sarty, Adam;

Principal Investigator : Hornidge, David

2016/4 - 2021/3

Principal Investigator

Studies of hadronic structure using electromagnetic probes, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics - Individual

Total Funding - 525,000

Portion of Funding Received - 525,000

Funding Competitive?: Yes

2015/4 - 2020/3

Co-applicant

The Canadian Institute of Nuclear Physics (CINP), Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Major Resources Support

Total Funding - 225,000

Portion of Funding Received - 0

Funding Competitive?: Yes

Co-applicant : Barrette, Jean; Gwinner, Gerald; Jens Dilling; Kanungo, Rituparna; Martin, Jeffery;

Principal Applicant : Garrett, Paul

2019/3 - 2019/9

Co-applicant

Pion Experiments at Jefferson Lab and Feasibility Studies for EIC, Grant

Funding Sources:

Mathematics of Information Technology and Complex Systems (MITACS)

Globalink Research Award

Total Funding - 6,000

Portion of Funding Received - 0

Funding Competitive?: Yes

Co-applicant : Horn, Tanja;

Principal Applicant : Kay, Stephen

2015/4 - 2018/3

Co-investigator

Investigations of Hadronic Structure using CB-TAPS at the Mainz Microtron, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Project Grant

Total Funding - 430,000

Portion of Funding Received - 101,374

Funding Competitive?: Yes

Co-investigator : Sarty, Adam;

Principal Investigator : Hornidge, David

2016/4 - 2018/3

Principal Investigator

SoLID Heavy Gas Cherenkov Detector Prototype, Grant

Funding Sources:

Sylvia Fedoruk Canadian Centre for Nuclear Innovation

Total Funding - 67,252

Portion of Funding Received - 58,480

Funding Competitive?: Yes

Canada Foundation for Innovation (CFI)

John R. Evans Leaders Fund (JELF)

Total Funding - 49,980

Portion of Funding Received - 49,980

Funding Competitive?: Yes

2016/4 - 2018/3

Co-applicant

CPP+, the MRS Application of the Centre for Particle Physics, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Major Resources Support

Total Funding - 660,000

Portion of Funding Received - 0

Funding Competitive?: Yes

Principal Applicant : Pinfeld, James

2011/4 - 2016/3

Principal Investigator

Studies of Hadron Structure using Electromagnetic Probes, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Individual Discovery Grant

Total Funding - 282,000

Portion of Funding Received - 282,000

Funding Competitive?: Yes

2012/4 - 2015/3

Co-investigator

Investigating Hadron Structure with CB-TAPS at MAMI, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Project Grant

Total Funding - 330,000

Portion of Funding Received - 60,750

Funding Competitive?: Yes

Co-investigator : Sarty, Adam;

Principal Investigator : Hornidge, David

2013/12 - 2014/5

Co-applicant

Investigation of Portable, Low Cost, Radiation Detection Technology for use with Wireless Personal Radiation Detection Equipment, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Engage Grant

Total Funding - 25,000

Portion of Funding Received - 0

Funding Competitive?: Yes

Co-applicant : Lolos, GJ;

Co-investigator : Kaletsch, K;

Principal Investigator : Papandreou, Z

Student/Postdoctoral Supervision

Bachelor's [n=1]

2021/2 - 2021/4
Co-Supervisor Kirby, Emma (Completed) , University of Regina
Thesis/Project Title: SHMS Heavy Gas Cherenkov prototype testing
Present Position: Undergraduate Student

Bachelor's Honours [n=6]

2019/5 - 2019/8
Principal Supervisor Heinrich, Nathan (Completed) , University of Regina
Thesis/Project Title: Measurements of Exclusive Kaon and Pion Production at Jefferson Lab
Present Position: Graduate Student, University of Regina

2018/5 - 2018/8
Principal Supervisor Walls, Coulter (Completed) , University of Regina
Thesis/Project Title: Extraction of the pion form factor from pi+ electroproduction data using the CKY Regge model
Present Position: Graduate Student, University of Manitoba

2017/9 - 2018/4
Principal Supervisor Hladun, Michael (Completed) , University of Regina
Thesis/Project Title: Simulations of Deep Exclusive Vector Meson Production
Present Position: Computer programmer, Lumentum

2016/9 - 2017/4
Academic Advisor Bacchiu, Alexander (Completed) , University of Regina
Thesis/Project Title: The Search for Exotic Hadrons - Tetraquarks and Pentaquarks
Present Position: Graduate Student, Carleton University

2016/5 - 2016/8
Principal Supervisor Strugari, Matthew (Completed) , University of Regina
Thesis/Project Title: Hardware and Software development for Nuclear Physics experiments at Jefferson Lab
Present Position: Graduate Student, Dalhousie University

2015/5 - 2015/8
Co-Supervisor Avila, Ethan (Completed) , Acadia University
Thesis/Project Title: Testing and rehabilitation of the HMS (High Momentum Spectrometer) focal plane detectors at JLab.
Present Position: Graduate Student, Dalhousie University

Master's Thesis [n=3]

2016/9 - 2019/8
Principal Supervisor Evans, Rory (Completed) , University of Regina
Thesis/Project Title: Detector prototyping and simulation of exclusive pi- production from a polarized ³He target with the SoLID spectrometer
Present Position: Programmer/Electrical Designer, GN Thermoforming Equipment, Halifax

2016/9 - 2018/12
Principal Supervisor Ambrose, Ryan (Completed) , University of Regina
Thesis/Project Title: SHMS Heavy Gas Cherenkov detector commissioning
Present Position: PhD Student, Dalhousie University

2015/9 - 2018/8
Principal Supervisor Basnet, Samip (Completed) , University of Regina
Thesis/Project Title: Deep Exclusive pi+ Production from low to high -t at Jefferson Lab Hall C
Present Position: PhD Student, KU Leuven, Belgium

Doctorate [n=6]

- 2020/11 - 2026/4
Principal Supervisor Junaid, Muhammad (In Progress) , University of Regina
Thesis/Project Title: L/T-separated ratios in Deep Exclusive π^-/π^+ Production from Deuterium Target. SoLID Heavy Gas Cherenkov detector prototyping for Jefferson Lab.
Present Position: PhD Student, University of Regina
- 2020/9 - 2027/4
Principal Supervisor Heinrich, Nathan (In Progress) , University of Regina
Thesis/Project Title: Measurement of the Charged Pion Form Factor to High Q^2 . SoLID Heavy Gas Cherenkov detector prototyping for Jefferson Lab.
Present Position: PhD Student, University of Regina
- 2019/7 - 2025/4
Principal Supervisor Usman, Ali (In Progress) , University of Regina
Student Degree Expected Date: 2025/4
Thesis/Project Title: Exclusive $p(e,e'\pi^+)n$ and $p(e,e'\pi^+)\Delta_0$ L/T-separated cross sections up to $Q^2=5.5$ GeV². SoLID Heavy Gas Cherenkov detector prototyping for Jefferson Lab.
Present Position: PhD Student, University of Regina
- 2018/9 - 2024/4
Principal Supervisor Kumar, Vijay (In Progress) , University of Regina
Student Degree Expected Date: 2024/4
Thesis/Project Title: Exclusive K^+ and π^+ form factors from electroproduction method at $Q^2<0.5$ GeV² and comparison to exact elastic form factors from CERN-SPS. SoLID Heavy Gas Cherenkov detector prototyping for Jefferson Lab.
Present Position: PhD student, University of Regina
- 2013/1 - 2017/10
Principal Supervisor Li, Wenliang (Bill) (Completed) , University of Regina
Thesis/Project Title: Exclusive Backward-Angle Omega Meson Electroproduction
Present Position: PDF, College of William & Mary
- 2012/8 - 2017/8
Co-Supervisor Paudyal, Dilli (Completed) , University of Regina
Thesis/Project Title: Spin Polarizability of a Proton using Polarized Photon Beam and Polarized Butanol Target at Mainz Microtron
Present Position: Sessional Lecturer, University of Regina

Post-doctorate [n=4]

- 2018/8 - 2023/6
Principal Supervisor Kay, Stephen (In Progress) , University of Regina
Thesis/Project Title: Acquisition and analysis of Kaon-LT data from Jefferson Lab Hall C. SoLID Heavy Gas Cherenkov detector prototyping for Jefferson Lab. Physics simulations for the Electron-Ion Collider.
Present Position: Research Associate, University of Regina
- 2017/9 - 2018/12
Co-Supervisor Paudyal, Dilli (Completed) , University of Regina
Thesis/Project Title: Global analysis of spin polarizabilities and drafting of manuscripts.
Present Position: Sessional Lecturer, University of Regina
- 2013/10 - 2019/9
Co-Supervisor Martel, Philippe (In Progress) , Mt. Allison University/JGU Mainz
Thesis/Project Title: Proton Spin Polarizabilities experiments at MAMI
Present Position: Research Associate, Johannes Gutenberg University of Mainz
- 2013/7 - 2018/6
Principal Supervisor Ahmed, Zafar (Completed) , University of Regina
Thesis/Project Title: JLab Hall C data reconstruction. Proton spin polarizabilities experiment at MAMI. Commissioning of SHMS+HMS with beam at JLab. Studies of pion electroproduction with the SoLID detector at JLab, and with the future EIC.
Present Position: Computer analyst

Event Administration

2018/9 - 2021/8	Organizing Committee and Program Committee, Nucleus Nucleus Collision Conference (NN2021), Whistler BC, Conference, 2021/6 - 2021/6
2020/9 - 2021/4	Program Committee, American Physical Society Topical Group on Hadronic Physics biennial meeting, Sacramento CA, Conference, 2021/4 - 2021/4
2019/7 - 2020/9	Organizer, Jefferson Lab Workshop on Backward-Angle (u-Channel) Physics https://www.jlab.org/indico/event/375/ , Workshop, 2020/9 - 2020/9
2019/4 - 2020/4	Program Committee, American Physical Society (APS) April Meeting, Washington DC, Conference, 2020/4 - 2020/4
2018/8 - 2019/4	Co-Chair, American Physical Society Topical Group on Hadronic Physics biennial meeting, Denver CO, Conference, 2019/4 - 2019/4
2016/1 - 2016/7	Organizer, Jefferson Lab User's Group Annual Workshop, Workshop, 2016/7 - 2016/7
2015/1 - 2015/6	Organizer, Jefferson Lab User's Group Annual Workshop, Workshop, 2015/6 - 2015/6
2014/9 - 2015/5	Member, International Advisory Board, Conference on the Intersections of Particle and Nuclear Physics, Vail CO, Conference, 2015/5 - 2015/5

Editorial Activities

2017/7 - 2021/6	Editorial Board Member, Particles (MDPI), Journal
2021/2 - 2021/2	Referee, Physics International, Journal
2018/12 - 2018/12	Referee, Particles (MDPI), Journal
2015/11 - 2018/10	Subject Editor for Nuclear Physics, FACETS, Journal
2017/10 - 2017/10	Referee, Physics International, Journal
2014/7 - 2017/6	Regional Editor, Physics International, Journal
2016/3 - 2016/10	Referee, Physics International, Journal
2015/2 - 2015/3	Referee, Physics International, Journal

Expert Witness Activities

2016/7 - 2016/9	Evidence review, RCMP Homicide Investigation Report, Canada, Regina We were asked by the RCMP Forensic Identification Section (FIS) to provide a physics-based review of certain information in a homicide case, in the form of a 4 page written report.
-----------------	---

Organizational Review Activities

2021/2 - 2021/2	Referee, U.S. National Science Foundation Physics Division, Nuclear Structure & Reactions Proposal Review
2020/12 - 2020/12	Referee, U.S. Department of Energy Office of Science External Grant Proposal Review

2020/4 - 2020/4 Review Committee, Jefferson Lab GlueX Collaboration
Review of the scientific merit and technical feasibility of an proposal to measure the GDH Sum Rule

2020/3 - 2020/3 Referee, U.S. National Science Foundation
Physics Division, Nuclear and Hadron Quantum Chromodynamics Proposal Review

2020/3 - 2020/3 Referee, U.S. Department of Energy
Office of Science External Grant Proposal Review

2019/9 - 2019/9 Referee, E.W.R. Steacie Memorial Fund
Review of a nominee for the Steacie Memorial Prize

2019/3 - 2019/3 Referee, U.S. Department of Energy
Office of Science Grant Proposal Review

2019/2 - 2019/3 Referee, U.S. National Science Foundation
PHY - Nuclear Precision Measurements Proposal Review

2019/1 - 2019/2 Referee, Al al Bayt University
Research Evaluation for Promotion to Full Professor

2018/12 - 2019/1 Referee, Natural Sciences and Engineering Research Council of Canada (NSERC)
External referee for two Discovery Grant applications

2018/11 - 2018/11 Referee, The University of Manitoba
Research Evaluation for Promotion to Full Professor

2018/9 - 2018/9 Referee, Steacie Memorial Fund
E.W.R. Steacie Memorial Fellowship Reviewer

2018/3 - 2018/4 Referee, University of Winnipeg
CRC Tier 1 renewal review

2018/3 - 2018/4 Referee, Memorial University of Newfoundland
Assessment for Distinguished University Professor

2017/7 - 2017/10 Referee, Steacie Memorial Fund
E.W.R. Steacie Memorial Fellowship Reviewer

2017/7 - 2017/8 External Examiner, University of Victoria
Ph.D. thesis of Nafisa Tasneem

2017/6 - 2017/7 Referee, Canada Council for the Arts
Killam Fellowship Reviewer

2016/4 - 2016/4 Proposal Review, U.S. Department of Energy
Office of Science Grant Proposal Review #xxxx18

2016/4 - 2016/4 Proposal Review, U.S. National Science Foundation
PHY - Nuclear & Hadron Quantum Chromodynamics Mid-Scale Proposal Review

2016/4 - 2016/4 Proposal Review, U.S. Department of Energy
Office of Science, Grant Proposal Review #xxxx29

2016/2 - 2016/2 Proposal Review, U.S. National Science Foundation
PHY - Nuclear & Hadron Quantum Chromodynamics Individual Proposal Review

2015/9 - 2015/10 Referee, University of Winnipeg
External referee for granting of tenure and promotion to Associate Professor

2015/1 - 2015/1 Proposal Review, U.S. National Science Foundation
Grant Proposal Reviewer (PHY - Hadrons and Light Nuclei)

International Collaboration Activities

- 2020/5 - 2035/6 Deputy Spokesperson and Collaboration Member, Canada
I am one of the founding members of EIC-Canada, and served as Deputy Spokesperson from 2020-22. This is the umbrella organization that was formed to coordinate Canadian experimental efforts at the Electron-Ion Collider (EIC) in the USA.
- 2015/12 - 2035/6 Collaboration Member, United States
Member of the Electron-Ion Collider User's Group (EICUG), <http://www.eicug.org>.
Institutional Representative for the University of Regina on the EICUG Institutional Board.
- 2015/10 - 2035/6 Collaboration Member, United States
Solenoidal Large Intensity Detector (SoLID) Collaboration member, GPD working group, Heavy Gas Cherenkov working group. I have supervised one MSc student so far on SoLID Heavy Gas Cherenkov detector work and physics simulations for the extraction of GPD E-tilde from single spin asymmetry data.
- 1994/7 - 2035/6 Collaboration Member, United States
Hall C User's Group, Thomas Jefferson National Accelerator Facility. This is the umbrella organization representing the user's of the Hall C facility at JLab. As one of these users, I have made substantial contributions to the Hall C scientific program: co-spokesperson of several experiments, analysis software and calibration of the HMS Aerogel Cherenkov detector, construction of Heavy Gas Cherenkov detector for the Super HMS. I have also supervised numerous undergraduate and graduate students on Hall C projects, as well as two postdoctoral fellows stationed there.
- 1990/4 - 2035/6 Collaboration Member, United States
Hall A Collaboration, Thomas Jefferson National Accelerator Facility. As part of my duties with the Hall A collaboration, I have helped construct one Aerogel Cherenkov detector, and a series of scintillator hodoscopes. I have participated in many data taking runs, and have supervised three M.Sc. students on topics related to this work.
- 1990/4 - 2035/6 Member, United States
I have been a member of the Jefferson Lab User's Group for many years and have contributed extensively to its scientific program. In 2014, I was elected to a 2-year term on the User's Group Board of Directors (UGBOD).
- 2001/1 - 2029/6 Collaboration Member, United States
Hall D (GlueX) Collaboration, Thomas Jefferson National Accelerator Facility. As part of this collaboration, I have contributed to the design of the Barrel Calorimeter by preparing reports on the Barrel Calorimeter readout and performing simulation studies of the invariant mass resolution for neutral particle reconstruction. I have also contributed as a sub-committee member of the collaboration.
- 2009/4 - 2022/4 Collaboration Member, Germany
Member of the A2 Collaboration, at the Institute for Nuclear Physics, Mainz, Germany. This is the scientific collaboration that maintains and performs experiments at the Crystal Ball + TAPS facility. I have supervised several undergraduate and one graduate students on research at this facility, as well as contributed to the co-supervision of several Postdoctoral Research Associates. Within this collaboration, I am an active member of the Compton working group.

Committee Memberships

- 2020/6 - 2021/9 Ex-Officio, Canadian Subatomic Physics Long Range Planning Committee (SAP-LRPC), Natural Sciences and Engineering Research Council of Canada (NSERC)
As CINP Executive Director, I am a non-voting committee member and resource person of the LRPC as they develop the overall plan for subatomic physics research in Canada. The scope of the plan is the years 2022-36, and will be in effect from 2022-26.
- 2020/1 - 2020/12 Chair, CINP Brief Writing Committee, Canadian Institute of Nuclear Physics
This committee gathers input from the Canadian nuclear physics research community and develops a "brief" for input to the Canadian Subatomic Physics Long Range Plan for the years 2022-36. As Chair, I was lead editor of the document.
- 2019/1 - 2020/12 Committee Member, Astroparticle Physics Community Planning Committee, McDonald Astroparticle Institute
Long range planning for astroparticle physics research in Canada
- 2015/7 - 2020/6 Committee Member, TRIUMF Policy and Planning Advisory Committee (PPAC), TRIUMF
This committee evaluates all requests for TRIUMF infrastructure in support of off-site and on-site programs.
- 2017/7 - 2018/7 Committee Member, Review Panel, U.S. National Science Foundation
- 2015/6 - 2016/9 Ex-Officio, Subatomic Physics Long Range Planning Committee (SAP-LRPC), Natural Sciences and Engineering Research Council of Canada (NSERC)
As CINP Executive Director, I was a resource person to the LRPC as they developed an overall plan for subatomic physics research in Canada for the years 2017-21, with a view through to 2026.
- 2014/6 - 2016/6 Committee Member, Jefferson Lab User's Group Board of Directors, Jefferson Lab User's Group
This is an elected position. We represent User concerns to Jefferson Lab management and the US Department of Energy, and also organize an annual User's Group Workshop.
- 2015/4 - 2015/10 Chair, CINP Brief Writing Committee, Canadian Institute of Nuclear Physics
This committee is charged by NSERC to gather input from the Canadian nuclear physics research community and develop a "Brief" for input to the NSERC Subatomic Physics Long Range Plan for the years 2016-21. As Chair, I was lead editor on the document.

Presentations

- (2021). Deep Exclusive pi- Production using a Transversely Polarized 3He target and the SoLID Spectrometer. APS April Meeting (Online), United States
Invited?: No, Keynote?: No
- (2020). Hall C Backward Angle Experimental Program. CLAS Mini-Workshop on large angle physics (Online), Newport News, VA, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
- (2020). Backward Exclusive omega Electroproduction from JLab 6 GeV Hall C. Jefferson Lab Backward-Angle (u-Channel) Physics Workshop (Online), Newport News, VA, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No

4. Ahmed Z*. (2020). Pion Form Factor from Exclusive π^+ Production at EIC. APS April Meeting (Online), Washington, DC, United States
Main Audience: Researcher
Invited?: No, Keynote?: No
5. Kay SJD*. (2020). Light Meson Form Factors from Exclusive Measurements. DOI: 10.5281/zenodo.4019443. Workshop on Pion and Kaon Structure Functions at the EIC (Online), Stony Brook, NY, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
6. Kay SJD*. (2020). Backward Meson Electroproduction from JLab 12 GeV Hall C Kaon-LT Experiment. Jefferson Lab Backward-Angle (u -Channel) Physics Workshop (Online), Newport News, VA, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
7. Li WB*. (2019). Exclusive Backward-Angle Meson Electroproduction -- Unique Access to u -channel Physics. APS Topical Group on Hadronic Physics Biennial Workshop, Denver, CO, United States
Main Audience: Researcher
Invited?: No, Keynote?: No
8. Li WB*. (2019). Exclusive Backward-Angle Meson Electroproduction – Unique Access to u -channel Physics. Institut fuer Kernphysik, University of Mainz, Mainz, Germany
Main Audience: Researcher
Invited?: Yes, Keynote?: No
9. Li WB*. (2018). Backward Angle Omega Meson Electroproduction. Hall C Winter Workshop, Jefferson Lab, Newport News, VA, United States
Main Audience: Researcher
Invited?: No, Keynote?: No
10. Ahmed Z*. (2018). Light Meson Form Factors at EIC. Workshop on Pion and Kaon Structure at an Electron Ion Collider (PIEIC 2018), Washington, DC, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
11. (2018). The experimental determination of the pion and kaon form factors and structure functions. American Physical Society April Meeting, Columbus, OH, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
12. Li WB*. (2018). Exclusive Backward-Angle Meson Electroproduction -- Unique Access to u -channel Physics. Canadian Association of Physicists Congress, Halifax, NS, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No
13. (2018). The Nucleon Polarizability Program at MAMI-A2. Catholic University of America Physics Seminar, Washington, DC, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
14. (2018). Deep Exclusive $p(e,e'\pi^+)n$ and $p(e,e'K^+)\Lambda$ Studies at Jefferson Lab. The George Washington University. This was also given at the University of Victoria (Victoria, BC) in 2017., Washington DC, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No

15. (2017). New Perspectives on the Charged Pion Form Factor. Canadian Association of Physicists Congress, Kingston, ON, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No
16. Li WB*. (2017). u -Channel omega Meson Production from the Fpi-2 Experiment. Jefferson Lab Hall C Winter Workshop, Newport News, VA, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
17. Ahmed Z*, Ye Z. (2017). E12-10-006B: Deep Exclusive π^- Production with Transversely Polarized ^3He using SoLID. SoLID Run Group Review, Jefferson Lab, Newport News, VA, United States
Main Audience: Decision Maker
Invited?: Yes, Keynote?: No
18. Basnet S*. (2017). π^+ Electroproduction at High $-t$. Canadian Association of Physicists Congress, Kingston, ON, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No
19. (2017). Transverse Meson Structure from Exclusive Measurements. Workshop on Pion and Kaon Structure at an Electron Ion Collider, Argonne, IL, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
20. (2016). Deep Exclusive $p(e,e'\pi^+)n$ Studies at Jefferson Lab. Argonne National Laboratory Physics Division Seminar. This presentation was also given as a Special Seminar at the University of Basel Physics Department (Basel, Switzerland), Argonne, IL, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
21. (2016). Deep Exclusive π^- Production using a Transversely Polarized ^3He Target and the SoLID Spectrometer. APS Division of Nuclear Physics Meeting, Vancouver, BC, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No
22. (2016). Exploring the Electromagnetic Structure of the Charged Pion and Kaon. Canadian Association of Physicists Annual Congress, Ottawa, ON, Canada
Main Audience: Researcher
Invited?: No, Keynote?: No
23. (2015). The Reliable Determination of F_π Beyond $Q^2=6 \text{ GeV}^2$. APS Division of Nuclear Physics Meeting, Santa Fe, NM, United States
Main Audience: Researcher
Invited?: No, Keynote?: No
24. A2 Collaboration. (2015). The Nucleon Polarizability Program at MAMI A2. Conference on the Intersections of Particle and Nuclear Physics (CIPANP), Vail, CO, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No
25. (2015). Deep Exclusive Meson Production: Studies of Underlying Quark-Gluon Structure at Jefferson Lab's Hall C. TRIUMF Colloquium Oct 6; Prairie Universities Physics Seminar Series: University of Saskatchewan Jan 6, University of Lethbridge Feb 26, University of Calgary Feb 27., Vancouver, BC, Canada
Main Audience: Knowledge User
Invited?: Yes, Keynote?: No

26. (2015). Backward Angle Vector Meson Production. Workshop on Exclusive Meson Production and Short-Range Hadron Structure, Newport News, VA, United States
Main Audience: Researcher
Invited?: Yes, Keynote?: No

Publications

Journal Articles

1. Adhikari S, ... (2021). Measurement of beam asymmetry for $\pi^- \Delta^{++}$ photoproduction on the proton at $E_{\gamma}=8.5$ GeV. Physical Review C. 103: L022201 1-7.
Published
Refereed?: Yes
2. Sharma S, ... (2021). High-precision half-life determination of ^{14}O via direct beta counting. Physical Review C.
Submitted
Refereed?: Yes
3. Mullen C, ..., Kay SJD*, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2021). Single π^0 production off neutrons bound in deuteron with linearly polarized photons. European Physical Journal A. 57: 205 1-11.
Published
Refereed?: Yes
4. Adhikari S, ... (2021). Measurement of Spin-Density Matrix Elements in $\Lambda(1520)$ Photoproduction at 8.2 to 8.8 GeV. Physical Review C.
Submitted
Refereed?: Yes
5. Christy ME, ..., Ahmed Z*, ..., (2021). Form Factors and Two-Photon Exchange in High-Energy Elastic Electron-Proton Scattering. Physical Review Letters.
Submitted
Refereed?: Yes
6. Ayerbe Gayoso C, ... Kay SJD*, ... (2021). Progress and Opportunities in Backward angle (u-channel) Physics. European Physical Journal A.
Submitted
Refereed?: Yes
7. Bhetuwal D, ..., Ahmed Z*, ..., Ambrose R*, ..., Basnet S*, ..., Evans R*, ... (2021). Ruling out color transparency in quasi-elastic $^{12}\text{C}(e,e'p)$ up to Q^2 of 14.2 (GeV/c) 2 . Physical Review Letters. 126: 082301 1-6.
Published
Refereed?: Yes
8. Arrington J, ..., Kay SJD*, ... (2021). Revealing the structure of light pseudoscalar mesons at the Electron-Ion Collider. Journal of Physics G. 48: 075106 1-47.
Published
Refereed?: Yes
9. Adhikari S, ... (2021). The GlueX Beamline and Detector. Nuclear Instruments and Methods A. 987: 164807 1-39.
Published
Refereed?: Yes

10. Benali M, ..., Ahmed Z*, ... (2020). Deeply Virtual Compton Scattering off the Neutron. *Nature Physics*. 16: 191-198.
Published
Refereed?: Yes
11. Dieterle M, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2020). Helicity-dependent cross sections for the photoproduction of π^0 pairs from nucleons. *Physical Review Letters*. 125: 062001 1-6.
Published
Refereed?: Yes
12. Paudyal D*, ..., Martel PP*, ..., (2020). Extracting the Spin Polarizabilities of the proton by measurement of Compton double-polarization observables. *Physical Review C*. 102: 035205 1-7.
Published
Refereed?: Yes
13. Adhikari S, ..., (2020). Measurement of the photon beam asymmetry in $\gamma p \rightarrow K^+ \Sigma^0$ at $E_{\gamma} = 8.5$ GeV. *Physical Review C*. 101: 065206 1-7.
Published
Refereed?: Yes
14. Yero C, ..., Ahmed Z*, ..., Ambrose R*, ..., Basnet B*, ..., Evans R*, ... (2020). Probing the Deuteron at Very Large Internal Momenta. *Physical Review Letters*. 125: 262501 1-6.
Published
Refereed?: Yes
15. Bashkanov M, ..., Kay SJD*, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ..., (2020). Signatures of the $d^*(2380)$ Hexaquark in $d(\gamma, p)\vec{n}$. *Physical Review Letters*. 124: 132001 1-6.
Published
Refereed?: Yes
16. Dlamini M, ..., Ahmed Z*, ..., Li WB*, ... (2020). Deep exclusive electroproduction of π^0 at high Q^2 in the valence quark regime. *Physical Review C*.
Submitted
Refereed?: Yes
17. Li W*, ..., Xu C*, ... (2019). Unique Access to u-channel Physics: Exclusive Backward-Angle Omega Meson Electroproduction. *Physical Review Letters*. 123: 182501 1-6.
Published
Refereed?: Yes
18. A. Ali, ... (2019). First measurement of near-threshold J/ψ exclusive photoproduction off of the proton. *Physical Review Letters*. 123: 072001 1-6.
Published
Refereed?: Yes
19. Briscoe WJ, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2019). Cross section for $\gamma n \rightarrow \pi^0 n$ measured at the Mainz A2 experiment. *Physical Review C*. 100: 065205 1-13.
Published
Refereed?: Yes
20. Aguilar AC, ..., Ahmed Z*, ... (2019). Pion and Kaon Structure at the Electron-Ion Collider. *European Physical Journal A*. 55: 190 1-15.
Published
Refereed?: Yes
21. Bashkanov M, Kay S*, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2019). Deuteron photodisintegration by polarized photons in the region of the $d^*(2380)$. *Physics Letters B*. 789: 7-12.
Published
Refereed?: Yes

22. Adhikari S, ... (2019). Beam asymmetry Σ for the photoproduction of η and η' mesons at $E_\gamma=8.8$ GeV. *Physical Review C Rapid Communications*. 100: 052201(R) 1-7.
Published
Refereed?: Yes
23. Akondi CS, ..., Martel PP*, ..., Middleton DG*, ..., Paudyal D*, ... (2019). Experimental Study of the $\gamma p \rightarrow K^0 \Sigma^+$, $\gamma n \rightarrow K^0 \Lambda$ and $\gamma n \rightarrow K^0 \Sigma^0$ Reactions at the Mainz Microtron. *European Physical Journal A*. 55: 202 1-17.
Published
Refereed?: Yes
24. Sokhoyan V, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2019). Measurement of the beam-helicity asymmetry in photoproduction of $\pi^0 \eta$ pairs on carbon, aluminum and lead. *Physics Letters B*. 802: 135243 1-7.
Published
Refereed?: Yes
25. Armstrong W, ..., Butuceanu C*, ... (2019). Revealing Color Forces with Transverse Polarized Electron Scattering. *Physical Review Letters*. 122: 022002 1-7.
Published
Refereed?: Yes
26. Basnet S*, Huber GM, Li WB*, ..., Xu C*, ... (2019). Exclusive π^+ electroproduction off the proton from low to high $-t$. *Physical Review C*. 100: 065204 1-8.
Published
Refereed?: Yes
27. Prakhov S, ..., Ahmed Z*, ..., Martel PP*, ..., Middleton DG*, ..., Paudyal D*, ... (2018). High-statistics measurement of the $\eta \rightarrow 3\pi^0$ decay at MAMI. *Physical Review C*. 97: 065203 1-10.
Published
Refereed?: Yes
28. Kaeser A, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2018). First measurement of helicity-dependent cross sections in $\pi^0 \eta$ photoproduction from quasi-free nucleons. *Physics Letters B*. 786: 305-312.
Published
Refereed?: Yes
29. Maxwell JD, ..., Butuceanu C*, ... (2018). Design and Performance of the Spin Asymmetries on the Nucleon Experiment. *Nuclear Instruments and Methods in Physics Research A*. 885: 145-159.
Published
Refereed?: Yes
30. Puckett AJR, ..., Butuceanu C*, ... (2018). Technical Supplement to "Polarization Transfer Observables in Elastic Electron-Proton Scattering at $Q^2=2.5, 5.2, 6.8$ and 8.5 GeV 2 ". *Nuclear Instruments and Methods in Physics Research*. A910: 54-79.
Published
Refereed?: Yes
31. Albayrak I, ..., Butuceanu C*, ... (2018). Measurements of Non-Singlet Moments of Nucleon Structure Functions and Comparison to Lattice QCD for $Q^2=4$ GeV 2 . *Physical Review Letters*. 123: 022501 1-7.
Published
Refereed?: Yes
32. Liyanage A, ..., Butuceanu C*, ... (2018). Proton Form Factor Ratio $m_p G_{Ep}/G_{Mp}$ from Double Spin Asymmetry. *Physical Review C*. 101: 035206 1-12.
Published
Refereed?: Yes

33. Adlarson P, ..., Ahmed Z*, ..., Martel PP*, ... Paudyal D*, ... (2018). Measurement of the decay $\eta \rightarrow \pi^0 \pi^0$ at MAMI. Physical Review D. 98: 012001 1-15.
Published
Refereed?: Yes
34. Carmignotto M, ..., Vidakovic S*, ..., Xu C*, ... (2018). Separated kaon electroproduction cross section and kaon form factor from 6 GeV JLab data. Physical Review C. 97: 025204 1-6.
Published
Refereed?: Yes
35. Tvaskis V, ..., Xu C*, ... (2018). Measurements of the Separated Longitudinal Structure Function F_L from Hydrogen and Deuterium Targets at Low Q^2 . Physical Review C. 97: 054204 1-11.
Published
Refereed?: Yes
36. Dieterle M, ..., Ahmed Z*, ..., Martel PP*, ..., Middleton DG*, ..., Paudyal D*, ... (2018). Photoproduction of π^0 mesons off protons and neutrons in the second and third nucleon resonance region. Physical Review C. 97: 065205 1-28.
Published
Refereed?: Yes
37. Sokhoyan V, ..., Ahmed Z*, ..., Middleton DG*, ..., Martel PP*, ..., Paudyal D*, ... (2018). Study of the $\gamma p \rightarrow \pi^0 \eta p$ reaction with the A2 setup at MAMI. Physical Review C. 97: 055212 1-15.
Published
Refereed?: Yes
38. Kasharevov VL, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2017). Study of eta and etaprime Photoproduction at MAMI. Physical Review Letters. 118: 212001 1-6.
Published
Refereed?: Yes
39. Mazouz M, ... (2017). Rosenbluth separation of the π^0 Electroproduction Cross Section off the Neutron. Physical Review Letters. 118: 222002 1-6.
Published
Refereed?: Yes
40. Al Ghouh H, ... (2017). Measurement of the beam asymmetry Σ for π^0 and eta photoproduction on the proton at $E_\gamma=9$ GeV. Physical Review C. 95: 042201(R) 1-6.
Published
Refereed?: Yes
41. Puckett AJR, ..., Butuceanu C*, ... (2017). Polarization Transfer Observables in Elastic Electron-Proton Scattering at $Q^2=2.5, 5.2, 6.8$ and 8.5 GeV². Physical Review C. 96: 055203 1-40.
Published
Refereed?: Yes
42. Adlarson P, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2017). Measurement of the $\pi^0 \rightarrow e^+e^- \gamma$ Dalitz decay at MAMI. Physical Review C. 95: 025202 1-10.
Published
Refereed?: Yes
43. Sokhoyan V, ..., Martel PP*, ..., Middleton DG*, ..., Paudyal D*, ... (2017). Determination of the scalar polarizabilities of the proton using beam asymmetry Σ_3 in Compton scattering. European Physical Journal A. 53: 14 1-6.
Published
Refereed?: Yes

44. Adlarson P, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2017). Measurement of the $\omega \rightarrow \pi^0 e^+ e^-$ and $\eta \rightarrow e^+ e^- \gamma$ Dalitz decays with the A2 setup at MAMI. *Physical Review C*. 95: 035208 1-18.
Published
Refereed?: Yes
45. Dieterle M., ... Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2017). First measurement of the polarization observable E and helicity-dependent cross sections in single π^0 photoproduction from quasi-free nucleons. *Physics Letters B*. 770: 523-531.
Published
Refereed?: Yes
46. Witthauer L, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2017). Helicity-dependent cross sections and double-polarization observable E in η photoproduction from quasifree protons and neutrons. *Physical Review C*. 95: 055201 1-20.
Published
Refereed?: Yes
47. Albayrak I, ..., Butucanu, C*, ... (2017). Non-Singlet Moments of the Nucleon Extracted from Longitudinal-Transverse Separations of Deuteron and Proton Cross Sections for $Q^2=4 \text{ GeV}^2$ and Comparison to Lattice QCD. *Physical Review Letters*.
Submitted
Refereed?: Yes
48. Kaeser A, ..., Middleton DG*, ... (2016). Photoproduction of η pairs off nucleons and deuterons. *European Physical Journal A*. 52: 252 1-17.
Published
Refereed?: Yes
49. Gardner S, ..., Martel PP*, ..., Middleton DG*, ..., Paudyal D*, ... (2016). Photon asymmetry measurements of $\vec{\gamma} p \rightarrow \pi^0 p$ for $E_\gamma=320-650 \text{ MeV}$. *European Physical Journal A*. 52: 333 1-11.
Published
Refereed?: Yes
50. Witthauer L, ..., Ahmed Z*, ..., Martel PP*, ..., Paudyal D*, ... (2016). Insight into the Narrow Structure in η Photoproduction on the Neutron from Helicity-Dependent Cross Sections. *Physical Review Letters*. 117: 132502 1-5.
Published
Refereed?: Yes
51. Annand JRM, ..., Middleton DG*, ... (2016). T and F asymmetries in π^0 photoproduction on the proton. *Physical Review C*. 93: 055209 1-10.
Published
Refereed?: Yes
52. Defurne M, ..., (2016). Rosenbluth Separation of the π^0 Electroproduction Cross Section. *Physical Review Letters*. 117: 262001 1-6.
Published
Refereed?: Yes
53. Witthauer L, ..., Ahmed Z*, ..., Martel, PP*, ..., Paudyal D*, ... (2016). Insight into the narrow structure in η photoproduction on the neutron from helicity-dependent cross sections. *Physical Review Letters*. 117: 132502 1-5.
Published
Refereed?: Yes
54. Huber, GM. (2015). The Proton Radius Puzzle (Editorial). *Physics International*. 6(1): 1-2.
Published
Refereed?: Yes, Open Access?: Yes

55. Fanelli C, ..., Butuceanu C*, ... (2015). Polarization Transfer in Wide-Angle Compton Scattering and Single-Pion Photoproduction from the Proton. *Physical Review Letters*. 115: 152001 1-6.
Published
Refereed?: Yes
56. Kaeser A, ..., Middleton DG*, ... (2015). The isospin structure of photoproduction of pieta pairs from the nucleon in the threshold region. *Physics Letters B*. 748: 244-250.
Published
Refereed?: Yes
57. Huber GM, Blok HP, Butuceanu C*, ..., Kovaltchouk V*, ..., van der Meer RLJ*, ..., Vidakovic S*, ... (2015). Separated response functions in exclusive, forward pi+/- electroproduction on deuterium. *Physical Review C*. 91: 015202 1-23.
Published
Refereed?: Yes
58. Dieterle M, ..., Middleton DG*, ... (2015). Photoproduction of pi0-pairs off protons and off neutrons. *European Physical Journal A*. 51: 142 1-18.
Published
Refereed?: Yes
59. Adlarson P, ..., Middleton DG*, ..., Paudyal D*, ... (2015). Measurement of pi0 photoproduction on the proton at MAMI-C. *Physical Review C*. 92: 024617 1-12.
Published
Refereed?: Yes
60. Martemianov M, ..., Middleton DG*, ... (2015). A new measurement of the neutron detection efficiency for the NaI Crystal Ball detector. *Journal of Instrumentation (Institute of Physics)*. 10: T04001 1-11.
Published
Refereed?: Yes
61. Annand JRM, ..., Middleton DG*, ... (2015). First measurement of target and beam-target asymmetries in the $\gamma p \rightarrow \pi^0 \eta p$ reaction. *Physical Review C*. 91: 055208 1-9.
Published
Refereed?: Yes
62. Martel PP, ..., Middleton DG*, ... (2015). Measurements of Double-Polarized Compton Scattering Asymmetries and Extraction of the Proton Spin Polarizabilities. *Physical Review Letters*. 114: 112501 1-5.
Published
Refereed?: Yes
63. Schumann S, ..., Middleton DG*, ... (2015). Threshold pi0 Photoproduction on Transversely Polarized Protons at MAMI. *Physics Letters B*. 750: 252-258.
Published
Refereed?: Yes

Reports

1. Adhikari S, ... (2020). Strange Hadron Spectroscopy with a Secondary K_L Beam in Hall D, arXiv: 2008.08215 [hep-ex]. 103. Thomas Jefferson National Accelerator Facility.
2. Li WB, Huber GM, Stevens J. (2020). Backward-angle Exclusive pi0 Production above the Resonance Region. arXiv:2008.10768 [nucl-ex]. 66. Thomas Jefferson National Accelerator Facility.
3. Meziani Z, ... (2016). A Search for the LHCb Charmed 'Pentaquark' using Photo-Production of J/Psi at Threshold in Hall C at Jefferson Lab, arXiv:1609.00676 [hep-ex]. 18. Thomas Jefferson National Accelerator Facility.

Conference Publications

1. Al Ghouh H, ... (2016). First Results from the GlueX Experiment. AIP Conf. Proc. 1735 (2016), arXiv:1512.03699 [nucl-ex]. Hadron 2015 Conference, Newport News, VA, United States
Conference Date: 2015/9
Paper
Published
Refereed?: Yes, Invited?: Yes
2. Huber GM, Collicott C. (2015). The Nucleon Polarizability Program at MAMI-A2. SLAC eCONF archive, <http://www.slac.stanford.edu/econf>, and arXiv: 1508.07979. Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2015), Vail, United States
Conference Date: 2015/5
Paper
Published
Refereed?: No, Invited?: Yes