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# Dr. Garth M. Huber

Correspondence language: English

### **Contact Information**

The primary information is denoted by (\*)

#### **Address**

Mailing (\*)

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# **Telephone**

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# 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

# Recognitions

2024/5 2024 Award for Outstanding Graduate Supervision - 1,000

The University of Regina

Prize / Award

Recognition of exceptional contributions to graduate education at 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]

2024/9 - 2027/12 Principal Applicant Solenoidal Large Intensity Device (SoLID) Heavy Gas Cherenkov Detector, Grant

#### **Funding Sources:**

Innovation Saskatchewan IF2023 matching funds Total Funding - 300,000

Portion of Funding Received - 300,000

Funding Competitive?: Yes University of Regina IF2023 matching funds Total Funding - 209,500

Portion of Funding Received - 209,500

Funding Competitive?: Yes

Canada Foundation for Innovation (CFI) Innovation Fund 2023 Competition

Total Funding - 509,500

Portion of Funding Received - 509,500

Funding Competitive?: Yes

2021/4 - 2026/3 Principal Investigator Studies of hadron structure with electromagnetic probes, Grant

or Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Subatomic Physics Individual Discovery

Total Funding - 550,000

Portion of Funding Received - 550,000

Funding Competitive?: Yes

2020/4 - 2025/3 The Canadian Institute of Nuclear Physics (CINP), Grant

Co-applicant 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

2023/4 - 2025/3 Co-applicant 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 - 120,000

Portion of Funding Received - 57,500

Funding Competitive?: Yes

Co-applicant : Hornidge D; Longo S; Papandreou Z;

Principal Applicant: Deconinck W

Completed [n=7]

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-applicant: Hornidge, D; Papandreou, Z;

Principal Applicant: Deconinck, W

2018/4 - 2021/3

Investigating Hadron Structure with CB-TAPS at MAMI, Grant

Co-investigator 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

Studies of hadronic structure using electromagnetic probes, Grant

Principal Investigator 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

The Canadian Institute of Nuclear Physics (CINP), Grant

Co-applicant

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

Research Grant

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

# Student/Postdoctoral Supervision

Bachelor's [n=3]

2024/5 - 2024/8 Zach Sullivan (In Progress), University of Regina

Principal Supervisor Student Degree Expected Date: 2026/5

Thesis/Project Title: Rate dependent detector studies for the PionLT experiment at

Jefferson Lab

Present Position: Undergraduate student

2023/4 - 2023/8 Portia Switzer (In Progress), University of Winnipeg

Principal Supervisor Student Degree Expected Date: 2025/4

Thesis/Project Title: Beam spin asymmetry analysis for the Delta0pi+ final state from

KaonLT data

Present Position: Undergraduate Student

2021/2 - 2021/4 Kirby, Emma (Completed), University of Regina

Co-Supervisor Thesis/Project Title: SHMS Heavy Gas Cherenkov prototype testing

Present Position: Housing Assistant

Bachelor's Honours [n=3]

2019/5 - 2019/8 Heinrich, Nathan (Completed), University of Regina

Principal Supervisor Thesis/Project Title: Measurements of Exclusive Kaon and Pion Production at Jefferson

Lab

Present Position: Graduate Student, University of Regina

2018/5 - 2018/8 Walls, Coulter (Completed), University of Regina

Principal Supervisor 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 Hladun, Michael (Completed), University of Regina

Principal Supervisor Thesis/Project Title: Simulations of Deep Exclusive Vector Meson Production

Present Position: Computer programmer, Lumentum

Master's Thesis [n=4]

2021/12 - 2023/12 Preet, Love (Completed), University of Regina

Principal Supervisor Thesis/Project Title: Understanding hadronic mass through light meson structure at the

Electron-Ion Collider

Present Position: Research Associate, University of Regina

2016/9 - 2019/8 Evans, Rory (Completed), University of Regina

Principal Supervisor Thesis/Project Title: Detector prototyping and simulation of exclusive pi- production from a

polarized <sup>3</sup>He target with the SoLID spectrometer

Present Position: Programmer/Electrical Designer, GN Thermoforming Equipment, Halifax

2016/9 - 2018/12 Ambrose, Ryan (Completed), University of Regina

Principal Supervisor Thesis/Project Title: SHMS Heavy Gas Cherenkov detector commissioning

Present Position: PhD Student, Dalhousie University

2015/9 - 2018/8 Basnet, Samip (Completed), University of Regina

Principal Supervisor 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=5]

2022/9 - 2027/8 Postuma, Alicia (In Progress), University of Regina

Principal Supervisor Student Degree Expected Date: 2027/8

Thesis/Project Title: Beam spin asymmetries in the deep exclusive meson

electroproduction

Present Position: Graduate Student

2020/11 - 2026/4 Junaid, Muhammad (In Progress), University of Regina

Principal Supervisor Thesis/Project Title: Pion Electromagnetic Form Factor to High Q<sup>2</sup>

Present Position: PhD Student, University of Regina

2020/9 - 2026/8 Heinrich, Nathan (In Progress), University of Regina

Principal Supervisor Thesis/Project Title: Scaling studies of the L/T-separated deep exclusive  $\pi^+$  electro-

production reaction

Present Position: PhD Student, University of Regina

2019/7 - 2024/12 Usman, Ali (In Progress), University of Regina

Principal Supervisor Student Degree Expected Date: 2024/12

Thesis/Project Title: Beam spin asymmetries of the deep exclusive p(e,e'pi\*)Delta0

reaction up to Q2=5.5 GeV2.

Present Position: PhD Student, University of Regina

2018/9 - 2024/8 Kumar, Vijay (In Progress), University of Regina

Principal Supervisor Student Degree Expected Date: 2024/8

Thesis/Project Title: Measurement of the pion exclusive electroproduction cross-section in

the E12-19-006 experiment at Jefferson Lab Present Position: PhD student, University of Regina

Post-doctorate [n=5]

2023/8 - 2026/8 Abdennacer Hamdi, University of Regina

Principal Supervisor Thesis/Project Title: Physics analysis of data from the KaonLT and PionLT experiments at

Jefferson Lab, and detector simulations for the Electron-Ion Collider

Present Position: Post-doctoral Fellow

2018/8 - 2023/5 Kay, Stephen, University of Regina

Principal Supervisor 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 Scientist, University of York, UK

2017/9 - 2018/12 Paudyal, Dilli, University of Regina

Co-Supervisor Thesis/Project Title: Global analysis of spin polarizabilities and drafting of manuscripts.

Present Position: Research Programmer Analyst, Farm Credit Canada

2013/10 - 2020/3 Martel, Philippe, Mt. Allison University/JGU Mainz

Co-Supervisor Thesis/Project Title: Proton Spin Polarizabilities experiments at MAMI

Present Position: Software Engineer, Stryker

2013/7 - 2018/6 Ahmed, Zafar, University of Regina

Principal Supervisor 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

#### Research Associate [n=1]

2024/1 - 2026/4 Love Preet, University of Regina

Principal Supervisor Thesis/Project Title: Feasibility studies of Deep Exclusive Meson Production at the

Electron-Ion Collider

Present Position: Research Associate

### **Event Administration**

| 2024/4 - 2026/4  | Program Committee, American Physical Society Divison of Nuclear Physics (APS-DNP) Responsible for all DNP conference programs for duration. 2 conferences/year X 2 years, Conference, 2024/4 - 2026/4 |
|------------------|---|
| 2024/7 - 2024/12 | Program Committee, 2nd International Workshop on Science at the Luminosity Frontier: Jefferson Lab at 22 GeV, Laboratori Nazionali di Frascati, Italy, Conference, 2024/12 - 2024/12                  |
| 2023/8 - 2024/6  | Program Committee, Nucleus Nucleus Collision Conference (NN2024), Whistler BC, Conference, 2024/6 - 2024/6  |
| 2022/10 - 2023/5 | Program Committee, Science at the Luminosity Frontier: Jefferson Lab at 22 GeV, Workshop, 2023/1 - 2023/1   |
| 2021/9 - 2022/6  | Co-Organizer, Physics Opportunities of the Electron-Ion Collider, Canadian Association of Physicists Congress, McMaster University, Hamilton ON, Workshop, 2022/6 - 2022/6                            |
| 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  |

# **Editorial Activities**

| 2017/7 - 2025/6   | Editorial Board Member, Particles (MDPI), Journal                                 |
|-------------------|---|
| 2023/3 - 2023/9   | Referee, Association of Asia Pacific Physical Societies (AAPPS) Bulletin, Journal |
| 2022/9 - 2022/9   | Referee, Physics International, 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                               |

# **Organizational Review Activities**

2024/6 - 2024/6 Referee, U.S. Department of Energy Office of Science Proposal Review

| 2024/5 - 2024/6   | Referee, University of Giessen Evaluation for Granting of Habilitation in Experimental Physics  |
|-------------------|---|
| 2024/4 - 2024/5   | Referee, Queen's University at Kingston<br>CFI Innovation Fund 2025 Competition, Reviewer for 3 Astroparticle Physics Notices of<br>Intent                    |
| 2024/3 - 2024/3   | Referee, U.S. National Science Foundation Proposal Review (PHY - Nuclear & Hadron Quantum Chromodynamics)   |
| 2023/5 - 2023/5   | Referee, Catholic University of America Tenure and promotion to Associate Professor   |
| 2023/4 - 2023/4   | Referee, U.K. Science and Technology Facilities Council (STFC) Nuclear Physics Grants Panel, 3 reviews  |
| 2022/11 - 2022/11 | Referee, University of Winnipeg Evaluation for Promotion to Professor   |
| 2022/9 - 2022/9   | Referee, U.S. Department of Energy Office of Science External Grant Proposal Review   |
| 2022/3 - 2022/3   | Referee, U.S. Department of Energy Office of Science External Grant Proposal Review   |
| 2022/2 - 2022/2   | Referee, U.S. National Science Foundation Physics Division, Nuclei and Hadron Quantum Chromodynamics Proposal Review  |
| 2021/3 - 2021/3   | Referee, Memorial University of Newfoundland Assessment for Distinguished University Professor  |
| 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<br>Review of the scientific merit and technical feasibility of an proposal to measure the GDH<br>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<br>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)<br>External referee for two Discovery Grant applications                         |
| 2018/11 - 2018/11 | Referee, The University of Manitoba<br>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

#### **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 of America

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 of America

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 of America

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 of America

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 of America

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 Hands Orang Regular (NOROR)

the User's Group Board of Directors (UGBOD).

2001/1 - 2029/6 Collaboration Member, United States of America

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   |

#### **Presentations**

- (2024). Measurement of the Charged Pion and Kaon Form Factors to High Q2 at JLab and the EIC. CFNS Workshop, Elucidating the Structure of Nambu-Goldstone Bosons, Stony Brook, United States of America Main Audience: Researcher Invited?: Yes, Keynote?: No
- 2. Postuma AC\*. (2024). Beam-Spin Asymmetry of Exclusive Pion Production in the KaonLT Experiment. Jefferson Lab Halls A/C Collaboration Meeting (hybrid), Newport News, United States of America Main Audience: Researcher Invited?: Yes, Keynote?: No
- 3. (2024). u-channel Exclusive Electroproduction at Jefferson Lab. CFNS Workshop on Baryon Dynamics, Stony Brook, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

4. Preet L\*. (2024). DEMPgen: Physics event generator for Deep Exclusive Meson Production at Jefferson Lab and the EIC. Jefferson Lab EIC Meeting (hybrid), Newport News, United States of America Main Audience: Researcher Invited?: Yes, Keynote?: Yes

5. Kumar V\*. (2024). Pion Form Factor Measurements at JLab and the EIC. International Workshop on Probing Hadron Structure at the Electron-Ion Collider, Bangalore, India

Main Audience: Researcher Invited?: Yes, Keynote?: No

6. (2024). L-T Separations in Deep Exclusive Meson Production with JLab 22 GeV. Jefferson Lab Halls A/C Collaboration Meeting (hybrid), Newport News, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

7. (2024). The SoLID GPD Program. ECT\* Workshop, Towards Improved Hadron Femtography with Hard Exclusive Reactions III, Trento, Italy

Main Audience: Researcher Invited?: Yes, Keynote?: No

8. Kay SJD\*. (2023). Future Pion Structure Studies with JLab 22 GeV and EIC. APS Topical Group on Hadronic Physics Biennial Workshop, Minneapolis, MN, United States of America

Main Audience: Researcher Invited?: No, Keynote?: No

9. (2023). L-T Separations in Deep Exclusive Meson Production at JLab 20+ GeV. Hall C User Meeting, Jefferson Lab (hybrid), Newport News, VA, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

10. (2023). Measurement of the Charged Pion Form Factor to High Q2. ECT\* Workshop: Precision Tests of Fundamental Physics with Light Mesons, Trento, Italy

Main Audience: Researcher Invited?: Yes, Keynote?: No

11. Preet L\*. (2023). Understanding Hadronic Mass through Light Meson Structure at the EIC. Winter Nuclear and Particle Physics Conference, Banff, AB, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

12. Usman A\*. (2023). Measurement of the e+p -> e'+pi+ +Delta0 reaction at Jefferson Lab Hall C. ECT\*-APCTP Joint Workshop: Exploring Resonance Structure with Transition GPDs, Trento, Italy Main Audience: Researcher

Invited?: Yes, Keynote?: No

13. Kay SJD\*. (2023). The Electron--Ion Collider: The Quest to Make Sense of QCD. TRIUMF Seminar, Vancouver, BC, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: Yes

14. Heinrich N\*. (2023). Update on GPD Factorization Validity Studies for Meson Production. APS Topical Group on Hadronic Physics Biennial Workshop, Minneapolis, MN, United States of America

Main Audience: Researcher Invited?: No, Keynote?: No

15. Postuma A\*. (2023). From Spin to Structure: Beam Spin Asymmetry and the Strong Force. Canadian Association of Physicists Congress, Frederickton, NB, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

16. (2023). Probing Hadron Structure with Deep Exclusive Reactions at Halls A/C. Halls A/C/Summer Workshop, Jefferson Lab (hybrid), Newport News, VA, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

17. Usman A\*. (2023). Charged Pion Electroproduction Reaction Studies at Jefferson Lab. Canadian Association of Physicists Congress, Frederickton, NB, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

- 18. Li WB, Pire, B, Cosyn W. (2022). Studying Color Transparency through u-Channel pi0 Electroproduction off a Nuclear Target. APS Division of Nuclear Physics Meeting, New Orleans, LA, United States of America Main Audience: Researcher Invited?: No, Keynote?: No
- 19. (2022). Deep Exclusive pi- production using a transversely polarized 3He target and the Solenoidal Large Intensity Device (SoLID). Canadian Association of Physicists Congress, Hamilton, ON, Canada Main Audience: Researcher Invited?: No, Keynote?: Yes
- 20. (2022). Deep Exclusive Meson Production in Hall C with Upgraded JLab Beam. The Next Generation of 3D Imaging Workshop, Jefferson Lab, Newport News, VA, United States of America Main Audience: Researcher Invited?: Yes, Keynote?: No
- 21. (2022). Opportunities for Studies of Exclusive Processes with JLab20+. ECT\* Workshop: Opportunities with JLab Energy and Luminosity Upgrade (hybrid), Trento, Italy Main Audience: Researcher Invited?: Yes, Keynote?: No
- 22. (2022). Pion and Kaon Form Factors from Deep Exclusive Meson Production at Jefferson Lab and EIC. Stony Brook University Center for Frontiers in Nuclear Science, Stony Brook, NY, United States of America Main Audience: Researcher Invited?: Yes, Keynote?: Yes
- 23. (2022). Electron-Ion Collider -- A major new scientific facility to probe the heart of nuclear matter. Prairie Universities Physics Seminar Series (online), University of Winnipeg and University of Calgary, Winnipeg and Calgary, Canada Main Audience: Researcher

Invited?: Yes, Keynote?: Yes

- 24. Heinrich N\*. (2022). PionLT: Extraction of the Charged Pion Form Factor to High Q2. Gordon Research Conference on Photonuclear Reactions, Holderness, NH, United States of America Main Audience: Researcher Invited?: No, Keynote?: No
- 25. Kay SJD\*, Trotta R. (2022). Studying meson structure at the EIC through the Sullivan process. Perceiving the Emergence of Hadronic Mass through AMBER@CERN workshop VII (online), Geneva, Switzerland Main Audience: Researcher Invited?: Yes, Keynote?: No
- 26. Usman A\*. (2022). Measurement of Charged Pion Form Factor at Jefferson Lab. Canada-Cuba-America-Mexico (C2AM) Graduate Student Physics Conference (online), Saint Johns, NL, Canada Main Audience: Researcher Invited?: No, Keynote?: No
- 27. (2022). Measuring the Pion Form Factor via Deep Exclusive Electroproduction at JLab and EIC. Hadron Physics Online Forum (HAPOF), Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China

Main Audience: Researcher Invited?: Yes, Keynote?: Yes

28. Kay SJD\*. (2022). Pion and Kaon Form Factor Measurements at the EIC. Canadian Association of Physicists Congress, McMaster University, Hamilton, ON, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

29. Kay SJD\*. (2022). Pion and Kaon Form Factor Measurements at the EIC. APS Division of Nuclear Physics Meeting, New Orleans, LA, United States of America

Main Audience: Researcher Invited?: No, Keynote?: No

30. (2022). Deep exclusive pi- production using a transversely polarized 3He target and the Solenoidal Large Intensity Device (SoLID). Canadian Association of Physicists Congress, McMaster University, Hamilton, ON, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

- 31. (2021). Deep Exclusive pi- Production using a Transversely Polarized 3He target and the SoLID Spectrometer. APS April Meeting (online), United States of America Invited?: No. Kevnote?: No
- 32. Kay SJD\*. (2021). Experimental Advances in Pion and Kaon Structure Studies. Strong QCD from Hadron Structure Experiments IV (online), Nanjing, China

Main Audience: Researcher Invited?: Yes, Keynote?: No

33. Kay SJD\*. (2021). Meson Structure at the EIC. Workshop on Hadron Structure at High-Energy, High-Luminosity Facilities (online), Nanjing, China

Main Audience: Researcher Invited?: Yes, Keynote?: No

34. (2020). Hall C Backward Angle Experimental Program. CLAS Mini-Workshop on large angle physics (online), Newport News, VA, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

35. (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 of America Main Audience: Researcher

Invited?: Yes, Keynote?: No

36. Ahmed Z\*. (2020). Pion Form Factor from Exclusive pi+ Production at EIC. APS April Meeting (online), Washington, DC, United States of America

Main Audience: Researcher Invited?: No, Keynote?: No

37. 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 of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

38. 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 of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

39. 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 of America

Main Audience: Researcher Invited?: No, Keynote?: No

40. 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?: Yes

41. Li WB\*. (2018). Backward Angle Omega Meson Electroproduction. Hall C Winter Workshop, Jefferson Lab, Newport News, VA, United States of America

Main Audience: Researcher Invited?: No, Keynote?: No

42. 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 of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

43. (2018). The experimental determination of the pion and kaon form factors and structure functions. American Physical Society April Meeting, Columbus, OH, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: No

44. 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

45. (2018). The Nucleon Polarizability Program at MAMI-A2. Catholic University of America Physics Seminar, Washington, DC, United States of America

Main Audience: Researcher Invited?: Yes, Keynote?: Yes

46. (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 of America

Main Audience: Researcher Invited?: Yes, Keynote?: Yes

#### **Publications**

#### **Journal Articles**

1. Afzal F, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*. (2024). First measurement using elliptically polarized photons of the double-polarization observable E for gamma p -> ppi0 and gamma p -> npi+. Physical Review Letters. 132: 121902 1-7,.

Published Refereed?: Yes

2. Achenbach P, ...,. (2024). The Present and Future of QCD. Nuclear Physics A. 1047: 122874 1-111.

Published Refereed?: Yes 3. Postuma AC\*, ..., Heinrich N\*, ..., Junaid M\*, Kay SJD\*, ..., Kumar V\*, ... Usman A\*. ... Ambrose R\*., ... (2024). Regge and GPD Comparison of Beam Spin Asymmetry in Exclusive Pion Production. Physical Review Letters.

Submitted

Refereed?: Yes

4. Ahmed A\*, Evans RS\*, ..., Kay SJD\*, ..., Preet L\*, Usman A\*. (2024). DEMPgen: Physics event generator for Deep Exclusive Meson Production at Jefferson Lab and the EIC. Computer Physics Communications. Submitted

Refereed?: Yes

5. Bhatt H, ..., Ambrose R\*, ..., Kay SJD\*, ..., Kumar V\*, ... (2024). Flavor Dependence of Charged Pion Fragmentation Functions. Physical Review Letters.

Submitted

Refereed?: Yes

6. Biswas D, ... Ahmed  $Z^*$ ., ..., Ambrose  $R^*$ , ... Basnet  $S^*$ ., ... Evans  $R^*$ ., ... (2024). New Measurements of the Deuteron to Proton  $F_2$  Structure Function Ratio. Physical Review Letters.

Submitted

Refereed?: Yes

7. Accardi A, ... (2024). Strong Interaction Physics at the Luminosity Frontier with 22 GeV electrons at Jefferson Lab. Journal of Physics G.

In Press

Refereed?: Yes

8. Ali S, ..., Ambrose GR\*, ..., Hamdi A\*, Heinrich N\*, ..., Junaid M\*, ..., Kay SJD\*, Kumar V\*, ..., Li WB\*, ..., Usman A\*, ... (2024). The SHMS 11 GeV/c Spectrometer in Hall C at Jefferson Lab. Nuclear Instruments and Methods A.

Submitted

Refereed?: Yes

9. Mornacchi E, ..., Martel PP\*, ..., Paudyal D\*, ... (2024). Evaluation of the E2/M1 ratio in the N -> Delta(1232) transition from the  $\gamma p$  ->  $p\pi^0$  reaction. Physical Review C. 109: 055201 1-15. Published

Refereed?: Yes

10. Bashkanov M, ..., Kay SJD\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2023). First measurement of the polarization transfer C^n\_x' in deuteron photodisintegration. Physics Letters. B 844: 138080 1-6. Published

Refereed?: Yes

11. Bylinkin A, ..., Kay SJD\*, ..., Usman A\*, ... (2023). Detector Requirements and Simulation Results for the EIC Exclusive, Diffractive and Tagging Physics Program using the ECCE Detector Concept. Nuclear Instruments and Methods. A 1052: 168238 1-40.

Published

Refereed?: Yes

12. Adhikari S, ... (2023). Measurement of the J/psi photoproduction cross section over the full near-threshold kinematic region. Physical Review C. 108: 025201 1-14.

Published

Refereed?: Yes

13. Bhetuwal D, ..., Ahmed Z\*, ..., Ambrose R\*, ..., Basnet S\*, ..., Evans R\*, ..., (2023). Constraints on the onset of Color Transparency from quasi-elastic <sup>12</sup>C(e,e'p) scattering up to Q²=14.2 (GeV/c)². Physical Review C. 108: 025203 1-13.

Published

14. Li X, ..., Kay SJD\*, ..., Usman A\*. (2023). Exclusive J/\(\psi\) detection and physics with ECCE. Nuclear Instruments and Methods. A 1048: 167956 1-10.

Published

Refereed?: Yes

Burkert VD, ... (2023). Precision Studies of QCD in the Low Energy Domain of the EIC. Progress in Particle and Nuclear Physics. 131: 104032 1-74.

Published

Refereed?: Yes

Seidl R, ..., Kay SJD\*, ..., Usman A\*. (2023). ECCE sensitivity studies for single hadron transverse single spin asymmetry measurements. Nuclear Instruments and Methods. A 1049: 168017 1-18.

Published

Refereed?: Yes

17. Seidl R, ..., Kay SJD\*, ..., Usman A\*. (2023). ECCE unpolarized TMD measurements. Nuclear Instruments and Methods. A 1055: 168458 1-11.

Published

Refereed?: Yes

Fanelli C, ..., Kay SJD\*, ... (2023). Al-assisted optimization of the ECCE tracking system at the Electron-Ion Collider. Nuclear Instruments and Methods. A 1047: 167748 1-14.

Published

Refereed?: Yes

19. Adhikari S, ... (2023). Measurement of Spin-Density Matrix Elements in rho(770) production with a linearly polarized photon beam at E gamma=8.2-8.8 GeV. Physical Review C. 108: 055204 1-15.

Published

Refereed?: Yes

20. Arrington J. ... (2023). The Solenoidal Large Intensity Device (SoLID) for JLab 12 GeV. Journal of Physics G. 50: 110501 1-58.

Published

Refereed?: Yes

Zhang J-L, ..., Kay SJD\*, ..., Usman A\*. (2023). Search for e -> tau charged lepton flavor violation at the EIC with the ECCE detector, Nuclear Instruments and Methods, A 1053: 168276 1-11.

Published

Refereed?: Yes

22. Karki A, ..., Ahmed Z\*, ... Ambrose R\*, ..., Basnet S\*, ... (2023). First measurement of the EMC Effect in <sup>10</sup> B and <sup>11</sup>B. Physical Review C. 108: 035201 1-7.

Published

Refereed?: Yes

Ghosal D, ..., Ahmed Z\*, .., Martel PP\*, ..., Paudyal D\*. (2023). Helicity dependent cross sections for the 23. photoproduction of pi0pi+/- pairs from quasi-free nucleons. Physics Letters B. 837: 138273 1-8. Published

Refereed?: Yes

24. Van Hulse C, ..., Kay SJD\*, ..., Usman A\*. (2023). Evaluation of longitudinal double-spin asymmetry measurements in semi-inclusive deep-inelastic scattering from the proton for the ECCE detector design. Nuclear Instruments and Methods, A 1056: 168563 1-12.

Published

Refereed?: Yes

Sharma S, ... (2022). High-precision half-life determination of <sup>14</sup>0 via direct beta counting. European Physical Journal A. 58: 83 1-8.

Published

26. Adhikari S, ... (2022). Search for photoproduction of axion-like particles at GlueX. Physical Review D. 105: 052007 1-8.

Published

Refereed?: Yes

Cividini F, ..., Ahmed Z\*, ..., Kay SJD\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2022). Measurement of the helicity dependence for single π<sup>0</sup> photoproduction from the deuteron. European Physical Journal A. 58(113 1-23)

**Published** 

Refereed?: Yes

28. Adhikari S, ... (2022). Measurement of Spin-Density Matrix Elements in Lambda(1520) Photoproduction at 8.2 to 8.8 GeV. Physical Review C. 105: 035201 1-10.

Published

Refereed?: Yes

29. Christy ME, ..., Ahmed Z\*, ...,. (2022). Form Factors and Two-Photon Exchange in High-Energy Elastic Electron-Proton Scattering. Physical Review Letters. 128: 102002 1-7.

Published

Refereed?: Yes

30. Bock F, ..., Kay SJD\*, ... (2022). Design and simulated performance of calorimetry systems for the ECCE detector at the Electron-Ion Collider. Nuclear Instruments and Methods. A 1055: 168484 1-17. Published

Refereed?: Yes

31. Bernauer JC, ..., Kay SJD\*, ... (2022). Scientific computing plan for the ECCE detector at the Electron-Ion Collider. Nuclear Instruments and Methods. A 1047: 167589 1-11.

Published

Refereed?: Yes

32. Bashkanov M, ..., Kay SJD\*, ..., Ahmed Z, ..., Paudyal D, ... (2022). Neutron polarization transfer C\_x' in π<sup>+</sup>photoproduction off proton. Physics Letters B. 847: 138283 1-7.

Published

Refereed?: Yes

33. Abdul Khalek R, ..., Kay SJD\*, ... (Electron-Ion Collider User Group). (2022). Science Requirements and Detector Concepts for the Electron-Ion Collider: EIC Yellow Report. Nuclear Physics A. 1026: 122447 1-902.

Published

Refereed?: Yes

34. Mornacchi E, Martel PP\*, ..., Ahmed Z\*, ..., Paudyal D\*, ... (2022). Measurement of Compton scattering at MAMI for the extraction of the electric and magnetic polarizabilities of the proton. Physical Review Letters. 128: 132503 1-6.

Published

Refereed?: Yes

35. Li R, ..., Heinrich N\*, ..., Kay SJD\*, ..., Kumar V\*, ... (2022). Measured proton electromagnetic structure deviates from theoretical predictions. Nature https://doi.org/10.1038/s41586-022-05248-1.

Published Refereed?: Yes

36. Georges F, ..., Ahmed Z\*, .., Li WB\*, ... (2022). Deeply virtual Compton scattering cross section at high Bjorken x\_B. Physical Review Letters. 128: 252002 1-7.

Published

37. Adhikari S, ... (2021). Measurement of beam asymmetry for pi<sup>-</sup>Delta<sup>++</sup> photoproduction on the proton at Egamma=8.5 GeV. Physical Review C. 103: L022201 1-7.

Published

Refereed?: Yes

38. Dlamini M, ..., Ahmed Z\*, ..., Li W\*, ..., (2021). Deep exclusive electroproduction of  $\pi^0$  at high Q² in the quark valence regime. Physical Review Letters. 127: 152301 1-7.

Published

Refereed?: Yes

39. Mullen C, ..., Kay SJD\*, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2021). Single pi<sup>0</sup> production off neutrons bound in deuteron with linearly polarized photons. European Physical Journal A. 57: 205 1-11. Published

Refereed?: Yes

40. Ayerbe Gayoso C, ... Kay SJD\*, ... (2021). Progress and Opportunities in Backward angle (u-channel) Physics. European Physical Journal A. 57: 342 1-28.

Published

Refereed?: Yes

41. Bhetuwal D, ..., Ahmed Z\*, ..., Ambrose R\*, ..., Basnet S\*, ..., Evans R\*, ... (2021). Ruling out color transparency in quasi-elastic <sup>12</sup>C(e,e'p) up to Q² of 14.2 (GeV/c)². Physical Review Letters. 126: 082301 1-6.

Published

Refereed?: Yes

42. 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

43. Dlamini M, ..., Ahmed Z\*, ..., Li WB\*, ... (2021). Deep exclusive electroproduction of  $\pi^0$  at high Q² in the valence quark regime. Physical Review Letters. 127: 152301 1-7.

Published

Refereed?: Yes

44. Adhikari S, ... (2021). The GlueX Beamline and Detector. Nuclear Instruments and Methods A. 987: 164807 1-39.

Published

Refereed?: Yes

45. Benali M, ..., Ahmed Z\*, ... (2020). Deeply Virtual Compton Scattering off the Neutron. Nature Physics. 16: 191-198.

Published

Refereed?: Yes

46. Dieterle M, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2020). Helicity-dependent cross sections for the photoproduction of pi<sup>0</sup> pairs from nucleons. Physical Review Letters. 125: 062001 1-6. Published

Refereed?: Yes

47. 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

48. Adhikari S, ...,. (2020). Measurement of the photon beam asymmetry in *gamma p->K<sup>+</sup>Sigma<sup>0</sup>* at Egamma=8.5 GeV. Physical Review C. 101: 065206 1-7.

Published

49. 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

50. 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

51. Li W\*, ..., Xu C\*, ... (2019). Unique Acess to u-channel Physics: Exclusive Backward-Angle Omega Meson Electroproduction. Physical Review Letters. 123: 182501 1-6.

Published

Refereed?: Yes

52. A. Ali, ... (2019). First measurement of near-threshold  $J/\psi$  exclusive photoproduction off of the proton. Physical Review Letters. 123: 072001 1-6.

Published

Refereed?: Yes

53. Briscoe WJ, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2019). Cross section for  $\gamma n - \gamma n$  measured at the Mainz A2 experiment. Physical Review C. 100: 065205 1-13.

Published

Refereed?: Yes

54. 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

55. 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

56. Adhikari S, ... (2019). Beam asymmetry  $\Sigma$  for the photoproduction of  $\eta$  and  $\eta$  ' mesons at E $\gamma$ =8.8 GeV. Physical Review C Rapid Communications. 100: 052201(R) 1-7.

Published

Refereed?: Yes

57. Akondi CS, ..., Martel PP\*, ..., Middleton DG\*, ..., Paudyal D\*, ... (2019). Experimental Study of the *gamma p->K<sup>0</sup>Sigma*<sup>+</sup>, *gamma n->K<sup>0</sup>Lambda* and *gamma n->K<sup>0</sup>Sigma*<sup>0</sup> Reactions at the Mainz Microtron. European Physical Journal A. 55: 202 1-17.

Published

Refereed?: Yes

58. 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

59. Armstrong W, ..., Butuceanu C\*, ... (2019). Revealing Color Forces with Transverse Polarized Electron Scattering. Physical Review Letters. 122: 022002 1-7.

Published

60. Basnet S\*, Huber GM, Li WB\*, ..., Xu C\*, ... (2019). Exclusive  $\pi^+$  electroproduction off the proton from low to high -t. Physical Review C. 100: 065204 1-8. Published

Refereed?: Yes

Prakhov S, ..., Ahmed Z\*, ..., Martel PP\*, ..., Middleton DG\*, ..., Paudyal D\*, ... (2018). High-statistics measurement of the eta->3pi0 decay at MAMI. Physical Review C. 97: 065203 1-10. Published

Refereed?: Yes

Kaeser A, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2018). First measurement of helicity-dependent cross sections in pi0eta photoproduction from quasi-free nucleons. Physics Letters B. 786: 305-312. Published

Refereed?: Yes

Maxwell JD, ..., Butuceanu C\*, ... (2018). Design and Performance of the Spin Asymmetries on the Nucleon 63. Experiment. Nuclear Instruments and Methods in Physics Research A. 885: 145-159. Published

Refereed?: Yes

Puckett AJR, ..., Butuceanu C\*, ... (2018). Technical Supplement to "Polarization Transfer Observables in 64. Elastic Electron-Proton Scattering at Q2=2.5, 5.2, 6.8 and 8.5 GeV2. Nuclear Instruments and Methods in Physics Research. A910: 54-79.

Published Refereed?: Yes

Albayrak I, ..., Butuceanu C\*, ... (2018). Measurements of Non-Singlet Moments of Nucleon Structure 65. Functions and Comparison to Lattice QCD for Q<sup>2</sup>=4 GeV<sup>2</sup>. Physical Review Letters. 123: 022501 1-7. Published

Refereed?: Yes

Liyanage A, ..., Butuceanu C\*, ... (2018). Proton Form Factor Ratio *mup G\_Ep/G\_Mp* from Double Spin Asymmetry, Physical Review C, 101: 035206 1-12.

Published

Refereed?: Yes

Adlarson P, ..., Ahmed Z\*, ..., Martel PP\*, ... Paudyal D\*, ... (2018). Measurement of the decay etaprime-67. >pi0pi0eta at MAMI. Physical Review D. 98: 012001 1-15.

Published

Refereed?: Yes

Carmignotto M, ..., Vidakovic S\*, ..., Xu C\*, ... (2018). Separated kaon electroproduction cross section and 68. kaon form factor from 6 GeV JLab data. Physical Review C. 97: 025204 1-6. Published

Refereed?: Yes

Tvaskis V, ..., Xu C\*, ... (2018). Measurements of the Separated Longitudinal Structure Function F\_L from Hydrogen and Deuterium Targets at Low Q<sup>2</sup>. Physical Review C. 97: 054204 1-11. Published

Refereed?: Yes

Dieterle M, ..., Ahmed Z\*, ..., Martel PP\*, ..., Middleton DG\*, ..., Paudyal D\*, ... (2018). Photoproduction of pi0 mesons off protons and neutrons in the second and third nucleon resonance region. Physical Review C. 97: 065205 1-28.

Published

71. Sokhoyan V, ..., Ahmed Z\*, ..., MIddleton DG\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2018). Study of the gamma p->pi<sup>0</sup> eta p reaction with the A2 setup at MAMI. Physical Review C. 97: 055212 1-15. Published Refereed?: Yes

### Reports

- 1. Atac H, ... (2023). Measurement of the Generalized Polarizabilities of the Proton in Virtual Compton Scattering, arXiv:2308.07197 [nucl-ex]. 25. Thomas Jefferson National Accelerator Facility.
- 2. Li X, ..., Kay SJD\*, ...Usman A\*, ... (2022). Open heavy flavor studies for the ECCE detector at the Electron Ion Collider, arXiv: 2207.10632. 11. ECCE Collaboration.
- 3. Benesch J, ... (2022). Jefferson Lab Hall C: Precision Physics at the Luminosity Frontier, arXiv:2209.11838 [nucl-ex]. 66. Thomas Jefferson National Accelerator Facility.
- 4. Li WB, Stevens J. (2022). Accessing DEMP and DVCS at Backward Angles above the Resonance Region, arXiv:2205.11763 [nucl-ex]. 32. Thomas Jefferson National Accelerator Facility.
- 5. Garni S, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2022). Target and beam-target asymmetries for the gamma p -> pi0 pi0 p reaction, arXiv:2207.14079. 17. Mainz Microtron (MAMI).
- 6. Adkins JK, ..., Kay SJD\*, ..., Usman A\*, ... (2022). Design of the ECCE Detector for the Electron Ion Collider, arXiv: 2209.02580. 32. ECCE Collaboration.
- 7. 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.
- 8. 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.

#### **Conference Publications**

 Huber GM, Li WB, Cosyn W, Pire B. (2022). u-Channel Color Transparency Observables. MDPI Physics. Jefferson Lab Color Transparency Workshop (online), Newport News, United States of America (451-461) Conference Date: 2021/6

Paper Published

Refereed?: Yes, Invited?: No