



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 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

## 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

- 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
- 2013/5 - 2026/6      Executive Director  
Canadian Institute of Nuclear Physics

|                 |                                                                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2003/1 - 2003/8 | Visiting Professor<br>Physics - Hall C, Thomas Jefferson National Accelerator Facility<br>Full-time, Visiting Professorship<br>Tenure Status: Non Tenure Track                 |
| 1997/7 - 2003/6 | Associate Professor<br>Physics, Science, The University of Regina<br>Full-time, Associate Professor<br>Tenure Status: Tenure                                                   |
| 1994/7 - 1997/6 | Assistant Professor<br>Physics, Science, The University of Regina<br>Full-time, Assistant Professor<br>Tenure Status: Tenure Track                                             |
| 1990/2 - 1994/6 | Research Scientist and Adjunct Assistant Professor<br>Physics, Science, The University of Regina<br>Full-time, Adjunct, Assistant Professor<br>Tenure Status: Non Tenure Track |
| 1988/3 - 1990/1 | Research Associate<br>Cyclotron Facility, Science / Bloomington, Indiana University<br>Full-time<br>Tenure Status: Non Tenure Track                                            |

## Research Funding History

### Awarded [n=4]

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025/1 - 2030/11<br>Principal Applicant | Solenoidal Large Intensity Device (SoLID) Heavy Gas Cherenkov Detector, Grant<br><b>Funding Sources:</b><br>Innovation Saskatchewan<br>IF2023 matching funds<br>Total Funding - 300,000<br>Portion of Funding Received - 300,000<br>Funding Competitive?: Yes<br>University of Regina<br>IF2023 matching funds<br>Total Funding - 209,500<br>Portion of Funding Received - 209,500<br>Funding Competitive?: Yes<br>Canada Foundation for Innovation (CFI)<br>Innovation Fund 2023 Competition<br>Total Funding - 509,500<br>Portion of Funding Received - 509,500<br>Funding Competitive?: Yes |
| 2025/4 - 2030/3<br>Co-applicant         | The Canadian Institute of Nuclear Physics (CINP), Grant<br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Major Resources Support<br>Total Funding - 446,000<br>Portion of Funding Received - 0<br>Funding Competitive?: Yes<br>Co-applicant : Caballero Suarez, O; Grinyer G; Kanungo, R; Mammei R; Ruiz C;                                                                                                                                                                                                              |

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025/4 - 2027/3<br>Co-applicant                           | Principal Applicant : Hackman, G<br><br>Canadian Participation at the Electron-Ion Collider (EIC), Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Discovery Project Grant<br>Total Funding - 370,000<br>Portion of Funding Received - 56,860<br>Funding Competitive?: Yes<br><br>Co-investigator : Gericke M; Hornidge D; Junginger T; Kester O; Laxdal R; Longo S;<br>Mammei J; Papandreou Z; Teymurazyan A;<br><br>Principal Investigator : Deconinck W |
| 2021/4 - 2026/3<br>Principal Investigator                 | Studies of hadron structure with electromagnetic probes, Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Individual Discovery<br>Total Funding - 550,000<br>Portion of Funding Received - 550,000<br>Funding Competitive?: Yes                                                                                                                                                                                                                             |
| <b>Completed [n=7]</b><br>2020/4 - 2025/3<br>Co-applicant | The Canadian Institute of Nuclear Physics (CINP), Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Major Resources Support<br>Total Funding - 385,000<br>Portion of Funding Received - 0<br>Funding Competitive?: Yes<br><br>Co-applicant : Gericke, M; Grinyer, G; Jeon, Sangyong; Kanungo, R; Martin, J; Ruiz, C;<br><br>Principal Applicant : Hackman, G                                                                                                 |
| 2023/4 - 2025/3<br>Co-applicant                           | Canadian Participation at the Electron-Ion Collider (EIC), Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Discovery Project Grant<br>Total Funding - 120,000<br>Portion of Funding Received - 57,500<br>Funding Competitive?: Yes<br><br>Co-applicant : Hornidge D; Longo S; Papandreou Z;<br><br>Principal Applicant : Deconinck W                                                                                                                       |
| 2021/4 - 2023/3<br>Co-investigator                        | Canadian Participation at the Electron-Ion Collider (EIC), Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Discovery Project Grant<br>Total Funding - 147,000<br>Portion of Funding Received - 39,000<br>Funding Competitive?: Yes<br><br>Co-applicant : Hornidge, D; Papandreou, Z;                                                                                                                                                                       |

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018/4 - 2021/3<br>Co-investigator        | Principal Applicant : Deconinck, W<br><br>Investigating Hadron Structure with CB-TAPS at MAMI, Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Project Grant<br>Total Funding - 405,000<br>Portion of Funding Received - 30,000<br>Funding Competitive?: Yes<br><br>Co-investigator : Sarty, Adam;<br><br>Principal Investigator : Hornidge, David                        |
| 2016/4 - 2021/3<br>Principal Investigator | Studies of hadronic structure using electromagnetic probes, Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics - Individual<br>Total Funding - 525,000<br>Portion of Funding Received - 525,000<br>Funding Competitive?: Yes                                                                                                                                                 |
| 2015/4 - 2020/3<br>Co-applicant           | The Canadian Institute of Nuclear Physics (CINP), Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Major Resources Support<br>Total Funding - 225,000<br>Portion of Funding Received - 0<br>Funding Competitive?: Yes<br><br>Co-applicant : Barrette, Jean; Gwinner, Gerald; Jens Dilling; Kanungo, Rituparna; Martin, Jeffery;<br><br>Principal Applicant : Garrett, Paul |
| 2019/3 - 2019/9<br>Co-applicant           | Pion Experiments at Jefferson Lab and Feasibility Studies for EIC, Grant<br><br><b>Funding Sources:</b><br>Mathematics of Information Technology and Complex Systems (MITACS)<br>Globalink Research Award<br>Total Funding - 6,000<br>Portion of Funding Received - 0<br>Funding Competitive?: Yes<br><br>Co-applicant : Horn, Tanja;<br><br>Principal Applicant : Kay, Stephen                                                                            |
| <b>Under Review [n=1]</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2026/4 - 2031/3<br>Principal Investigator | Studies of hadron structure with electromagnetic probes, Grant<br><br><b>Funding Sources:</b><br>Natural Sciences and Engineering Research Council of Canada (NSERC)<br>Subatomic Physics Individual Discovery<br>Total Funding - 1,068,090<br>Portion of Funding Received - 1,068,090<br>Funding Competitive?: Yes                                                                                                                                        |

## Student/Postdoctoral Supervision

### Bachelor's [n=3]

|                                         |                                                                                                                                                                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024/5 - 2024/8<br>Principal Supervisor | Zach Sullivan (In Progress) , University of Regina<br>Student Degree Expected Date: 2026/5<br>Thesis/Project Title: Rate dependent detector studies for the PionLT experiment at Jefferson Lab<br>Present Position: Undergraduate student |
| 2023/4 - 2023/8<br>Principal Supervisor | Portia Switzer (Completed) , University of Winnipeg<br>Thesis/Project Title: Beam spin asymmetry analysis for the $\Delta^0 \pi^+$ final state from KaonLT data<br>Present Position: Graduate student, University of Saskatchewan         |
| 2021/2 - 2021/4<br>Co-Supervisor        | Kirby, Emma (Completed) , University of Regina<br>Thesis/Project Title: SHMS Heavy Gas Cherenkov prototype testing<br>Present Position: Housing Assistant                                                                                 |

### Bachelor's Honours [n=2]

|                                          |                                                                                                                                                                                                                           |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025/5 - 2025/12<br>Principal Supervisor | Ivan Zhenchuk (In Progress) , University of Regina<br>Student Degree Expected Date: 2027/5<br>Thesis/Project Title: Beam spin asymmetries for the $p(e,e'K^+)\Lambda$ reaction<br>Present Position: Undergraduate student |
| 2019/5 - 2019/8<br>Principal Supervisor  | Heinrich, Nathan (Completed) , University of Regina<br>Thesis/Project Title: Measurements of Exclusive Kaon and Pion Production at Jefferson Lab<br>Present Position: Graduate Student, University of Regina              |

### Master's Thesis [n=2]

|                                           |                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2021/12 - 2023/12<br>Principal Supervisor | Preet, Love (Completed) , University of Regina<br>Thesis/Project Title: Understanding hadronic mass through light meson structure at the Electron-Ion Collider<br>Present Position: Research Associate, University of Regina Small Modular Nuclear Reactor Engineering                                 |
| 2016/9 - 2019/8<br>Principal Supervisor   | Evans, Rory (Completed) , University of Regina<br>Thesis/Project Title: Detector prototyping and simulation of exclusive $\pi^-$ production from a polarized $^3\text{He}$ target with the SoLID spectrometer<br>Present Position: Programmer/Electrical Designer, GN Thermoforming Equipment, Halifax |

### Doctorate [n=7]

|                                          |                                                                                                                                                                                                                                                           |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2026/1 - 2029/12<br>Principal Supervisor | Awais Bin Zahid (In Progress) , University of Regina<br>Student Degree Expected Date: 2029/12<br>Thesis/Project Title: Deep Exclusive Meson Production at the EIC and Jefferson Lab<br>Present Position: Graduate student                                 |
| 2025/9 - 2029/8<br>Principal Supervisor  | Sadoun, Nermin (In Progress) , University of Regina<br>Student Degree Expected Date: 2029/8<br>Thesis/Project Title: L/T-separated $\pi^-/\pi^+$ ratios over a wide $Q^2$ range from Jefferson Lab<br>Present Position: PhD student, University of Regina |

|                                          |                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2022/9 - 2028/8<br>Principal Supervisor  | Postuma, Alicia (In Progress) , University of Regina<br>Student Degree Expected Date: 2028/8<br>Thesis/Project Title: Beam spin asymmetries in the deep exclusive meson electroproduction. Started as a MSc student in Sept 2022, fast tracked to PhD in May 2023.<br>Present Position: Graduate Student                                         |
| 2021/1 - 2026/10<br>Principal Supervisor | Junaaid, Muhammad (In Progress) , University of Regina<br>Student Degree Expected Date: 2026/10<br>Thesis/Project Title: Pion Electromagnetic Form Factor to High $Q^2$<br>Present Position: PhD Student, University of Regina                                                                                                                   |
| 2020/9 - 2026/12<br>Principal Supervisor | Heinrich, Nathan (In Progress) , University of Regina<br>Student Degree Expected Date: 2026/12<br>Thesis/Project Title: Scaling studies of the L/T-separated deep exclusive $\pi^+$ electroproduction reaction. Started as a MSc student September 2020, fast tracked to PhD in June 2021<br>Present Position: PhD Student, University of Regina |
| 2019/7 - 2025/5<br>Principal Supervisor  | Usman, Ali (Completed) , University of Regina<br>Thesis/Project Title: Beam spin asymmetries of the deep exclusive $p(e,e'\pi^+)\Delta^0$ reaction up to $Q^2=5.5 \text{ GeV}^2$ .<br>Present Position: Natural Sciences Research Grant Officer, University of Regina                                                                            |
| 2018/9 - 2024/8<br>Principal Supervisor  | Kumar, Vijay (Completed) , University of Regina<br>Thesis/Project Title: Measurement of the pion exclusive electroproduction cross-section in the E12-19-006 experiment in Hall-C at Jefferson Lab<br>Present Position: PDF                                                                                                                      |

**Post-doctorate [n=4]**

|                                         |                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024/9 - 2025/6<br>Principal Supervisor | Vijay Kumar (Completed) , University of Regina<br>Thesis/Project Title: Low $Q^2$ Pion data analysis<br>Present Position: PDF                                                                                                                                                                                                     |
| 2023/8 - 2026/8<br>Principal Supervisor | Abdennacer Hamdi (In Progress) , University of Regina<br>Thesis/Project Title: Physics analysis of Low $Q^2$ data from the KaonLT and experiment at Jefferson Lab, and detector simulations for the Electron-Ion Collider<br>Present Position: Post-doctoral Fellow, University of Regina                                         |
| 2018/8 - 2023/5<br>Principal Supervisor | Kay, Stephen (Completed) , University of Regina<br>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.<br>Present Position: Research Scientist, University of York, UK |
| 2013/10 - 2020/3<br>Co-Supervisor       | Martel, Philippe (Completed) , Mt. Allison University/JGU Mainz<br>Thesis/Project Title: Proton Spin Polarizabilities experiments at MAMI<br>Present Position: Software Engineer, Stryker                                                                                                                                         |

**Research Associate [n=1]**

|                                         |                                                                                                                                                                                                                                                                    |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024/1 - 2025/3<br>Principal Supervisor | Love Preet (Completed) , University of Regina<br>Thesis/Project Title: Feasibility studies of Deep Exclusive Meson Production at the Electron-Ion Collider<br>Present Position: Research Associate, University of Regina Small Modular Nuclear Reactor Engineering |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Event Administration

|                  |                                                                                                                                                                                                        |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024/7 - 2027/6  | Coordinating Committee, Hall C Collaboration, responsible for organization of two workshops per year, each January and June., Workshop, 2025/1 - 2027/6                                                |
| 2024/4 - 2026/4  | Program Committee, American Physical Society Division 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 <a href="https://www.jlab.org/indico/event/375/">https://www.jlab.org/indico/event/375/</a> , 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 - 2027/6 | Editorial Board Member, Particles (MDPI), Journal                                 |
| 2025/3 - 2025/5 | Referee, Physics Letters B, 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                                           |

## Organizational Review Activities

|                  |                                                                                  |
|------------------|----------------------------------------------------------------------------------|
| 2025/3 - 2025/4  | Referee, U.S. National Science Foundation Proposal Review (PHY - Nuclear Theory) |
| 2024/9 - 2024/10 | Referee, U.S. Department of Energy Office of Science Proposal Review             |
| 2024/6 - 2024/6  | Referee, U.S. Department of Energy Office of Science Proposal Review             |



|                   |                                                                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024/5 - 2024/6   | Referee, University of Giessen<br>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 Intent                    |
| 2024/3 - 2024/3   | Referee, U.S. National Science Foundation<br>Proposal Review (PHY - Nuclear & Hadron Quantum Chromodynamics)                                               |
| 2023/5 - 2023/5   | Referee, Catholic University of America<br>Tenure and promotion to Associate Professor                                                                     |
| 2023/4 - 2023/4   | Referee, U.K. Science and Technology Facilities Council (STFC)<br>Nuclear Physics Grants Panel, 3 reviews                                                  |
| 2022/11 - 2022/11 | Referee, University of Winnipeg<br>Evaluation for Promotion to Professor                                                                                   |
| 2022/9 - 2022/9   | Referee, U.S. Department of Energy<br>Office of Science External Grant Proposal Review                                                                     |
| 2022/3 - 2022/3   | Referee, U.S. Department of Energy<br>Office of Science External Grant Proposal Review                                                                     |
| 2022/2 - 2022/2   | Referee, U.S. National Science Foundation<br>Physics Division, Nuclei and Hadron Quantum Chromodynamics Proposal Review                                    |
| 2021/3 - 2021/3   | Referee, Memorial University of Newfoundland<br>Assessment for Distinguished University Professor                                                          |
| 2021/2 - 2021/2   | Referee, U.S. National Science Foundation<br>Physics Division, Nuclear Structure & Reactions Proposal Review                                               |
| 2020/12 - 2020/12 | Referee, U.S. Department of Energy<br>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 Sum Rule |
| 2020/3 - 2020/3   | Referee, U.S. National Science Foundation<br>Physics Division, Nuclear and Hadron Quantum Chromodynamics Proposal Review                                   |
| 2020/3 - 2020/3   | Referee, U.S. Department of Energy<br>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<br>Office of Science Grant Proposal Review                                                                              |
| 2019/2 - 2019/3   | Referee, U.S. National Science Foundation<br>PHY - Nuclear Precision Measurements Proposal Review                                                          |
| 2019/1 - 2019/2   | Referee, Al al Bayt University<br>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                      |

## 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 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

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025/1 - 2025/12 | Chair, CINP Brief Writing Committee, Canadian Institute of Nuclear Physics<br>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 2027-41. As Chair, I was lead editor of the document.                                                                                            |
| 2020/6 - 2021/9  | Ex-Officio, Canadian Subatomic Physics Long Range Planning Committee (SAP-LRPC), Natural Sciences and Engineering Research Council of Canada (NSERC)<br>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<br>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<br>Astroparticle Institute<br>Long range planning for astroparticle physics research in Canada                                                                                                                                                                                                                                     |
| 2015/7 - 2020/6  | Committee Member, TRIUMF Policy and Planning Advisory Committee (PPAC), TRIUMF<br>This committee evaluates all requests for TRIUMF infrastructure in support of off-site and on-site programs.                                                                                                                                                                                                                    |

## Presentations

- Hamdi A\*, Kumar V\*. (2026). Low Q2 results from the PionLT and KaonLT experiments at Jefferson Lab. American Physical Society Global Physics Summit, Denver, CO, United States of America  
Main Audience: Researcher  
Invited?: No, Keynote?: No
- Preet L\*, Kay SJD. (2025). Early Science Projections for pi+ Form Factor Studies with ePIC at EIC. Canadian Association of Physicists Congress, Saskatoon, SK, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: Yes
- Postuma AC\*. (2025). A new angle into the proton: Backward-angle Meson Electroproduction. Canadian Association of Physicists Congress, Saskatoon, SK, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
- Junaid M\*. (2025). Measurement of Charged Pion Form Factor at Jefferson Lab. Canadian Association of Physicists Congress, Saskatoon, SK, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
- Gaskell D, Horn T, Markowitz P. (2025). PionLT/KaonLT - First Separated Cross Sections from JLab 12 GeV Data. Jefferson Lab User Organization Annual Meeting, Newport News VA, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
- Usman A\*. (2025). Measurement of the Beam Spin Asymmetry for  $ep \rightarrow e'\pi + \Delta^0$  at Jefferson Lab. Hall C User Meeting, Jefferson Lab (hybrid), Newport News, VA, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No

7. Usman A\*. (2025). Probing hadron structure through  $ep \rightarrow e'\pi + \Delta^0$  reaction at Jefferson Lab. Canadian Association of Physicists Congress, Saskatoon, SK, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
8. Hamdi A\*. (2025). Exclusive Kaon Electroproduction at Jefferson Lab. Canadian Association of Physicists Congress, Saskatoon, SK, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
9. Kumar V\*. (2025). PionLT Low Q<sup>2</sup> L/T Separated Cross Section Analysis. Hall C User Meeting, Jefferson Lab (hybrid), Newport News VA, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
10. Kay SJD, Preet L\*. (2025). Meson form factor measurements and the importance of B0. EIC Detector 2 Working Group meeting, Brookhaven National Laboratory, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
11. Puckett A. (2024). Meson and Nucleon Form Factors. Science at the Luminosity Frontier: JLab @ 22 GeV, Frascati INFN-LNF, Italy  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
12. (2024). Measurement of the Charged Pion and Kaon Form Factors to High Q<sup>2</sup> at JLab and the EIC. CFNS Workshop, Elucidating the Structure of Nambu-Goldstone Bosons, Stony Brook NY, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
13. 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
14. (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
15. 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
16. 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
17. (2024). The SoLID GPD Program. ECT\* Workshop, Towards Improved Hadron Femtography with Hard Exclusive Reactions, Trento, Italy  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
18. (2024). Probing the onset of QCD's Hard-Soft Factorization via Deep Exclusive Meson Production. Canadian Association of Physicists Congress, London, ON, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No

19. (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
20. Usman A\*. (2024). Measurement of Beam Spin Asymmetry for Exclusive Pion Electroproduction at JLab Hall C. APS-DNP Annual Meeting, Boston MA, United States of America  
Main Audience: Researcher  
Invited?: No, Keynote?: No
21. Preet L\*, Kay SJD. (2024). Far Forward Reconstruction Studies for Deep Exclusive Meson Production Reactions at the EIC. Canadian Association of Physicists Congress, London, ON, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
22. (2024). Deep Exclusive  $p(e,e'\pi^+)n$  and  $p(e,e'K^0)\Lambda$  Studies at Jefferson Lab. ECT\* Workshop, Towards Improved Hadron Femtography with Hard Exclusive Reactions, Trento, Italy  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
23. 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
24. (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
25. (2023). Measurement of the Charged Pion Form Factor to High  $Q^2$ . ECT\* Workshop: Precision Tests of Fundamental Physics with Light Mesons, Trento, Italy  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
26. 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
27. Usman A\*. (2023). Measurement of the  $e+p \rightarrow e'+\pi^+ +\Delta^0$  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
28. 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
29. 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
30. Postuma A\*. (2023). From Spin to Structure: Beam Spin Asymmetry and the Strong Force. Canadian Association of Physicists Congress, Fredericton, NB, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No

31. (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
32. Usman A\*. (2023). Charged Pion Electroproduction Reaction Studies at Jefferson Lab. Canadian Association of Physicists Congress, Fredericton, NB, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
33. Li WB, Pire, B, Cosyn W. (2022). Studying Color Transparency through u-Channel  $\pi^0$  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
34. (2022). Deep Exclusive  $\pi^-$  production using a transversely polarized  $^3\text{He}$  target and the Solenoidal Large Intensity Device (SoLID). Canadian Association of Physicists Congress, Hamilton, ON, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: Yes
35. (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
36. (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
37. (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
38. (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
39. Heinrich N\*. (2022). PionLT: Extraction of the Charged Pion Form Factor to High  $Q^2$ . Gordon Research Conference on Photonuclear Reactions, Holderness, NH, United States of America  
Main Audience: Researcher  
Invited?: No, Keynote?: No
40. 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
41. 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

42. (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
43. 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
44. 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
45. (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
46. (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, Keynote?: No
47. 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
48. 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
49. (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
50. (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
51. 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
52. 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

53. 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
54. 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
55. 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

## Publications

### Journal Articles

1. Afzal F, ... (2025). Measurement of Spin-Density Matrix Elements in  $\phi(1020)$  to  $K^0_S K^0_L$  Photoproduction with a Linearly Polarized Photon Beam at  $E_{\gamma}=8.2-8.8$  GeV. Physical Review C. 112: 025203 1-11.  
Published  
Refereed?: Yes
2. Bosted P, ..., Ambrose R\*, ..., Kay SJD\*, ..., Kumar V\*, ... (2025). Flavor, transverse momentum and azimuthal dependence of charged pion multiplicities in SIDIS with 10.6 GeV electrons. Physical Review C. Submitted  
Refereed?: Yes
3. Alsalmi S, ..., Butuceanu C\*, ... (2025). Investigation of Medium Modifications to  $^{12}\text{C}$  Structure Functions in the Resonance Region. Physical Review Letters. Submitted  
Refereed?: Yes
4. Afzal F, ... (2025). Baryon anti-baryon photoproduction cross sections off the proton. Physical Review C. Submitted  
Refereed?: Yes
5. Postuma AC\*, ..., Heinrich N\*, ..., Junaid M\*, Kay SJD\*, ..., Kumar V\*, ... Usman A\*. ... Ambrose R\*, ... (2025). Probing hard/soft factorization via beam-spin asymmetry in exclusive pion electroproduction from the proton. Physics Letters B. Revision Requested  
Refereed?: Yes
6. Adkins JK, ..., Kay SJD\*, ..., Usman A\*, ... (2025). Design of the ECCE Detector for the Electron Ion Collider. Nuclear Instruments and Methods A. 1073: 170240 1-29.  
Published  
Refereed?: Yes
7. Afzal F, ... (2025). Measurement of the Total Compton Scattering Cross Section between 6.5 and 11 GeV. Physics Letters B. 870: 139914.  
In Press  
Refereed?: Yes



8. Bhatt H, ..., Ambrose R\*, ..., Kay SJD\*, ..., Kumar V\*, ... (2025). Flavor Dependence of Charged Pion Fragmentation Functions. Physics Letters B. 865: 139485 1-6.  
Published  
Refereed?: Yes
9. Biswas D, ... Ahmed Z\*, ..., Ambrose R\*, ... Basnet S\*, ... Evans R\*, ... (2025). New Measurements of the Deuteron-to-Proton  $F_2$  Structure Function Ratio. Physical Review Letters. 135: 151902 1-7.  
Published  
Refereed?: Yes
10. Qattan I, ... (2025). High Precision Measurements of the Proton Electromagnetic Form Factors and their Ratio at  $Q^2=0.50, 2.64, 3.20$  and  $4.10 \text{ GeV}^2$ . Physical Review C. 112: 035205 1-31.  
Published  
Refereed?: Yes
11. Hamdi W, ..., Heinrich N\*, ..., Junaid M\*, ..., Postuma A\*, ... (2025). Intrinsic Energy and Time Resolution of the Jefferson Lab Hall C Neutral Particle Spectrometer. Nuclear Instruments and Methods A.  
Submitted  
Refereed?: Yes
12. Ali S, ..., Ambrose GR\*, ..., Hamdi A\*, Heinrich N\*, ..., Junaid M\*, ..., Kay SJD\*, Kumar V\*, ..., Li WB\*, ..., Usman A\*, ... (2025). The SHMS 11 GeV/c Spectrometer in Hall C at Jefferson Lab. Nuclear Instruments and Methods A. 1083: 171070.  
In Press  
Refereed?: Yes
13. Afzal F, ... Hamdi A\*, ... (2025). Search for the  $Y(2175)$  in the photoproduction cross-section measurement of  $\gamma p \rightarrow \phi \pi^+ \pi^- p$  at GlueX. Physical Review Letters.  
Submitted  
Refereed?: Yes
14. Afzal F, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*. (2024). First measurement using elliptically polarized photons of the double-polarization observable  $E$  for  $\gamma p \rightarrow p \pi^0$  and  $\gamma p \rightarrow n \pi^+$ . Physical Review Letters. 132: 121902 1-7,.  
Published  
Refereed?: Yes
15. Achenbach P, .... (2024). The Present and Future of QCD. Nuclear Physics A. 1047: 122874 1-111.  
Published  
Refereed?: Yes
16. 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. 308: 109444 1-22.  
Published  
Refereed?: Yes
17. Nycz M, ..., Kay SJD\*, ..., Kumar V\*, ..., Usman A\*, ... (2024). Quasielastic  $^3\text{He}(\vec{e}, e')$  Asymmetry in the Threshold Region. Physical Review Letters.  
Submitted  
Refereed?: Yes
18. Li R, ... Heinrich N\*, ..., Kay SJD\*, Kumar V\*, ... (2024). Pion electroproduction measurements in the nucleon resonance region. European Physical Journal A. 60: 168 1-7.  
Published  
Refereed?: Yes

19. Accardi A, ..., Heinrich N\*, ..., Junaid M\*, ..., Kumar V\*, ..., Postuma AC\*, ..., Preet L\*, ..., Usman A\*, ... (2024). Strong Interaction Physics at the Luminosity Frontier with 22 GeV electrons at Jefferson Lab. European Physical Journal A. 60: 173 1-101.  
Published  
Refereed?: Yes
20. Mornacchi E, ..., Martel PP\*, ..., Paudyal D\*, ... (2024). Evaluation of the E2/M1 ratio in the N -> Delta(1232) transition from the  $\gamma p \rightarrow p\pi^0$  reaction. Physical Review C. 109: 055201 1-15.  
Published  
Refereed?: Yes
21. 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
22. 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
23. 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
24. Bhetuwal D, ..., Ahmed Z\*, ..., Ambrose R\*, ..., Basnet S\*, ..., Evans R\*, ... (2023). Constraints on the onset of Color Transparency from quasi-elastic  $^{12}\text{C}(e,e'p)$  scattering up to  $Q^2=14.2$  (GeV/c) $^2$ . Physical Review C. 108: 025203 1-13.  
Published  
Refereed?: Yes
25. Li X, ..., Kay SJD\*, ..., Usman A\*. (2023). Exclusive J/ψ detection and physics with ECCE. Nuclear Instruments and Methods. A 1048: 167956 1-10.  
Published  
Refereed?: Yes
26. 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
27. 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
28. Seidl R, ..., Kay SJD\*, ..., Usman A\*. (2023). ECCE unpolarized TMD measurements. Nuclear Instruments and Methods. A 1055: 168458 1-11.  
Published  
Refereed?: Yes
29. Fanelli C, ..., Kay SJD\*, ... (2023). AI-assisted optimization of the ECCE tracking system at the Electron-Ion Collider. Nuclear Instruments and Methods. A 1047: 167748 1-14.  
Published  
Refereed?: Yes

30. 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
31. Arrington J, ... (2023). The Solenoidal Large Intensity Device (SoLID) for JLab 12 GeV. Journal of Physics G. 50: 110501 1-58.  
Published  
Refereed?: Yes
32. Zhang J-L, ..., Kay SJD\*, ..., Usman A\*. (2023). Search for  $e \rightarrow \tau$  charged lepton flavor violation at the EIC with the ECCE detector. Nuclear Instruments and Methods. A 1053: 168276 1-11.  
Published  
Refereed?: Yes
33. Karki A, ..., Ahmed Z\*, ... Ambrose R\*, ..., Basnet S\*, ... (2023). First measurement of the EMC Effect in  $^{10}\text{B}$  and  $^{11}\text{B}$ . Physical Review C. 108: 035201 1-7.  
Published  
Refereed?: Yes
34. Ghosal D, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*. (2023). Helicity dependent cross sections for the photoproduction of  $\pi^0\pi^{\pm}$  pairs from quasi-free nucleons. Physics Letters B. 837: 138273 1-8.  
Published  
Refereed?: Yes
35. 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
36. Sharma S, ... (2022). High-precision half-life determination of  $^{14}\text{O}$  via direct beta counting. European Physical Journal A. 58: 83 1-8.  
Published  
Refereed?: Yes
37. Adhikari S, ... (2022). Search for photoproduction of axion-like particles at GlueX. Physical Review D. 105: 052007 1-8.  
Published  
Refereed?: Yes
38. Cividini F, ..., Ahmed Z\*, ..., Kay SJD\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2022). Measurement of the helicity dependence for single  $\pi^0$  photoproduction from the deuteron. European Physical Journal A. 58(113 1-23)  
Published  
Refereed?: Yes
39. 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
40. 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

41. 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
42. 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
43. Bashkanov M, ..., Kay SJD\*, ..., Ahmed Z, ..., Paudyal D, ... (2022). Neutron polarization transfer  $C_x'$  in  $\pi^+$  photoproduction off proton. Physics Letters B. 847: 138283 1-7.  
Published  
Refereed?: Yes
44. 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
45. 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
46. 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
47. 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  
Refereed?: Yes
48. 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
49. Dlamini M, ..., Ahmed Z\*, ..., Li W\*, ..., (2021). Deep exclusive electroproduction of  $\pi^0$  at high  $Q^2$  in the quark valence regime. Physical Review Letters. 127: 152301 1-7.  
Published  
Refereed?: Yes
50. Mullen C, ..., Kay SJD\*, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2021). Single  $\pi^0$  production off neutrons bound in deuteron with linearly polarized photons. European Physical Journal A. 57: 205 1-11.  
Published  
Refereed?: Yes
51. 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

52. Bhetuwal D, ..., Ahmed Z\*, ..., Ambrose R\*, ..., Basnet S\*, ..., Evans R\*, ... (2021). Ruling out color transparency in quasi-elastic  $^{12}\text{C}(\text{e},\text{e}'\text{p})$  up to  $Q^2$  of 14.2 (GeV/c) $^2$ . Physical Review Letters. 126: 082301 1-6.  
Published  
Refereed?: Yes
53. 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
54. Dlamini M, ..., Ahmed Z\*, ..., Li WB\*, ... (2021). Deep exclusive electroproduction of  $\pi^0$  at high  $Q^2$  in the valence quark regime. Physical Review Letters. 127: 152301 1-7.  
Published  
Refereed?: Yes
55. Adhikari S, ... (2021). The GlueX Beamline and Detector. Nuclear Instruments and Methods A. 987: 164807 1-39.  
Published  
Refereed?: Yes
56. Benali M, ..., Ahmed Z\*, ... (2020). Deeply Virtual Compton Scattering off the Neutron. Nature Physics. 16: 191-198.  
Published  
Refereed?: Yes
57. Dieterle M, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2020). Helicity-dependent cross sections for the photoproduction of  $\pi^0$  pairs from nucleons. Physical Review Letters. 125: 062001 1-6.  
Published  
Refereed?: Yes
58. 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
59. 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
60. 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
61. Bashkanov M, ..., Kay SJD\*, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ..., (2020). Signatures of the  $d^*(2380)$  Hexaquark in  $d(\gamma, \text{p} \vec{\text{e}}\text{e})$ . Physical Review Letters. 124: 132001 1-6.  
Published  
Refereed?: Yes
62. 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
63. 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

64. 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
65. 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
66. 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
67. 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
68. 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
69. 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
70. Armstrong W, ..., Butuceanu C\*, ... (2019). Revealing Color Forces with Transverse Polarized Electron Scattering. *Physical Review Letters*. 122: 022002 1-7.  
Published  
Refereed?: Yes
71. 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

## Reports

1. Andreoiu C, Barkanova S, Christian G, Gezerlis A, Huber G, Martin JW, Sanadpen R. (2025). The 2027-2034 Vision for Nuclear Physics in Canada, with an outlook to 2041. 141. Canadian Institute of Nuclear Physics.
2. 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.
3. 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.
4. Benesch J, ... (2022). Jefferson Lab Hall C: Precision Physics at the Luminosity Frontier, arXiv:2209.11838 [nucl-ex]. 66. Thomas Jefferson National Accelerator Facility.
5. 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.

6. Garni S, ..., Ahmed Z\*, ..., Martel PP\*, ..., Paudyal D\*, ... (2022). Target and beam-target asymmetries for the  $\gamma p \rightarrow \pi^0 \pi^0 p$  reaction, arXiv:2207.14079. 17. Mainz Microtron (MAMI).
7. Adkins JK, ..., Kay SJD\*, ..., Usman A\*, ... (2022). Design of the ECCE Detector for the Electron Ion Collider, arXiv: 2209.02580. 32. ECCE Collaboration.
8. Adhikari S, ... (2020). Strange Hadron Spectroscopy with a Secondary K<sub>L</sub> Beam in Hall D, arXiv: 2008.08215 [hep-ex]. 103. Thomas Jefferson National Accelerator Facility.
9. Barkanova S, Dillmann I, Garnsworthy A, Gwinner G, Huber G, Mammei J. (2020). The 2022-2036 Horizon for Nuclear Physics in Canada -- From the Core of Matter to the Fuel of Stars. 187. Canadian Institute of Nuclear Physics.
10. Li WB, Huber GM, Stevens J. (2020). Backward-angle Exclusive  $\pi^0$  Production above the Resonance Region. arXiv:2008.10768 [nucl-ex]. 66. Thomas Jefferson National Accelerator Facility.

## Conference Publications

1. 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