**FREDRICK IVER OLNESS** January 30, 2024

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## Education:

- Ph.D. in Theoretical Particle Physics, Minor in Mathematics.
  University of Wisconsin–Madison.
- M.S. in Physics. University of Wisconsin–Madison.
- B.S. in Physics and Mathematics. Duke University, Honors Research Thesis,
  Graduated with Distinction in Physics; Magna Cum Laude.

## Academic Positions:

- **Southern Methodist University**, Department of Physics, Theoretical Particle Physics
  Assistant Professor: *1991 - 1996.*
  Associate Professor: *1996 - 2003.*
  Professor: *2003 - present.*
  Dedman Distinguished Professor: *2010 - present.*
  Chair: *2001 - 2007 & 2010 - 2015.*
  President, Faculty Senate: *2009 - 2010.*

- **CFNS**, *Associate Member*, Center for Frontiers in Nuclear Science (CFNS),
  Stony Brook University. *2023 - Present*
- **PITT PACC**, *Associate Member*, University of Pittsburgh Pittsburgh Particle Physics Astrophysics and Cosmology Center. *2017 - Present*
- **CERN**, *(Centre Européen pour la Recherche Nucléaire)* Guest Scientific Associate, Theoretical Physics Group & Atlas Collaboration. *July 2007 - Aug. 2008.*
- **Fermilab**, Visiting Scientist, Theoretical Physics Group. *Sept. 1997 - Aug. 1998.*
- **Superconducting SuperCollider Laboratory**, SSC Fellow 1993-94. Physics Research Group, Guest Scientist. *August 1991 to 1994.*
- **University of Oregon**, Institute of Theoretical Science, Theoretical Particle Physics Group. Postdoctoral Research Fellow.
- **Universität Dortmund**, Institut für Theoretische Physik. Visiting faculty member, guest of Prof. E. A. Paschos. *April–May 1989.*

- **Illinois Institute of Technology**, Theoretical Particle Physics Group. Postdoctoral Research Fellow.
- **University of Wisconsin–Madison**, Theoretical Particle Physics Group. Research Assistant.
- **University of Wisconsin–Madison**, Experimental High Energy Physics Group. Research Assistant. Assisted in the preparation of experiment **E609** at Fermilab.
- **Los Alamos Scientific Laboratory**. Undergraduate Research Assistant, Geophysics Group. Developed computer codes to simulate multiphase fluid flow on CDC 7600 and Cray 1 systems. *(Two summers)*
- **Duke University**, Triangle Universities Nuclear Laboratory. Undergraduate Research Assistant. Performed and analyzed a $^{13}C(p,\gamma)^{14}N$ experiment as a portion of Honors Research Thesis.

## Awards, Grants, and Fellowships:

- 2024: Initiated DOE Theory grant at SMU in May 1992. Continued funding from 1992 to present, and supplemental funding for CTEQ related activities at Fermilab.
  Principal Investigator for Theory Task.
- 2023-27: SURGE - Saturated Glue Topical Collaboration.
  The Saturated Glue (SURGE) Collaboration is a Topical Collaboration in Nuclear Theory, funded by the US Department of Energy, Office of Science, Office of Nuclear Physics for the period 2023-2027.
  Working group convener: Framework and global analysis.
  https://www.bnl.gov/physics/surge/
- 2023-27: HEFTY: Topical Collaboration on Heavy-Flavor TheorY for QCD Matter
  HEFTY is a Topical Collaboration in Nuclear Theory, funded by the US Department of Energy, Office of Science, Office of Nuclear Physics for the period 2023-2027.
  External Associate: WG2 Heavy Flavors working group. https://hefty.tamu.edu/
- 2024: 36 of my papers have been designated as "Very well-known" (100+ citations), and 11 of these have been designated as "Renowned" (500+ citations).
  (Designations based upon citations as recorded in the inSpires database)
- 2022: Muenster University support for research sabbatical in Muenster, Germany.
- 2020: Received Kosciuszko Foundation fellowship to host Dr. Aleksander Kusina for Spring 2020 at SMU.
- 2017 Robert S. Hyer Research Award, of the Texas Section of the American Physical Society, graduate mentor award together with graduate student Eric Godat.
  `https://www.aps.org/units/tsaps/awards/hyer/`
- 2015: Hosted & received grant support for the *XXIII International Workshop on Deep-*

*Inelastic Scattering and Related Subjects* **(DIS2015)** meeting on the SMU campus in April 2015. Supporting agencies included NSF, DOE, BNL, JLab, Fermilab, DESY, & CERN.

- 2010 SMU Dedman Family Distinguished Professor, (Dedman College SMU)
- 2010 DESY Theorist of the Week: March 2010, (Deutsches Elektronen-Synchrotron) Hamburg, Germany
- 2009 SMU Ford Research Fellowship Recipient
- 2007-08 CERN support for research sabbatical in Geneva, Switzerland
- 2006-08: Received DFG (Deutsche Forschungsgemeinschaft) German Research Foundation fellowship for postdoc Ji-Young Yu.
- 2007 Recipient: Sam Taylor Fellowship.
- 2007 SMU "M" Award: This is the most highly coveted recognition given to students, faculty, staff, and administrators for service to the University.
- 2006 Recipient: University Distinguished Citizen Award.
- 2005: Fellow of the American Physical Society. Elected 2005 *"for significant contributions to understanding nucleon structure and heavy quark production in perturbative quantum chromodynamics."* Elected membership limited to 1/2% of APS members.
- 2000 Recipient: SMU President's Associates Outstanding Faculty Award.
- QuarkNet Grant awarded by DOE and NSF to involve local HS teachers with LHC research. 2000-01. Organized a 2-week workshop for 18 teachers, 4-14 June 2001. Workshops held annually through 2019.
  `www.physics.smu.edu/~olness/quarknet/`
- SSC Fellowship, 1993-94. One of 6 Theory Faculty selected in a nation-wide competition.
- TNRLC Grant to CTEQ Collaboration. 1992-1994.
- H.O.P.E. *Honored on Professor Excellence* Distinguished Honoree Award, Spring 2001. Based on teaching excellence, and selected by SMU student Resident Assistants.
  I also received the HOPE award in both 1999 and 2000.
- SMU University Research Council Faculty Research Grant.
  1994: Research visit to CERN, DESY, Moriond, ITEP, Dubna.
  1999: Research visit to 13'th Hadron Collider Workshop, Mumbai, India.
  2004: Research visit to CERN Les Houches Workshop.
  2017: PDF-Lattice QCD conference organization at Oxford University, UK.
  2018: KEK Seminar Vist, Tsukuba, Japan, & DIS2019 Workshop, Osaka, Japan.
- SMU Instructional Technology Grant to develop Mathematica tools for the physics curriculum, 1993.

## Recent Professional Activities:

- **Workshop Organizer**, The 1st Workshop on the Muon-Ion Collider (MuIC), Rice University, Houston, TX. 13-15 December 2023, https://muic2023.rice.edu/
- **JLab Theory Consultant**, 2023: Experiment PR12-14-002, Contact: Dien Nguyen and Cynthia Keppel. Precision Measurements and Studies of a Possible Nuclear Dependence of $R = \sigma_L/\sigma_T$.
  We worked with the collaboration members to asses their impact on crucial PDF constraints; this helped them pass the PAC review.
- **Workshop Organizer**, The 2023 CFNS-CTEQ Summer School on the Physics of the Electron-Ion Collider. Hosted by Center for Frontiers in Nuclear Science (CFNS), Stony Brook University, USA, June 5-16, 2023.
- **Local Workshop Organizer, Presenter, Judge**, The 2023 Regeneron International Science and Engineering Fair (ISEF). Dallas, Texas, USA May 14-19, 2023. https://www.societyforscience.org
- **CTEQ Collaboration** (Coordinated Theoretical-Experimental Project on QCD).
  **Member**, 1992–Present.
  **Co-Spokesperson**, 2010 - 2014. (www.cteq.org)
- **xFitter Developer Team:** Member, Open-source PDF analysis framework. 2013–Present. (xfitter.org)
- **Institutional Representative**, EIC Users Group, working to realize the new Electron Ion Collider (EIC) under construction at Brookhaven National Laboratory. http://www.eicug.org/
- **Chair, Award Selection Committee** for the "Guido Altarelli Award." (2022-Present) The prize is awarded to a Junior Scientist for an outstanding scientific contribution to the field covered by the DIS Conference series. Chair: 2022-Present. Member: 2015-Present.
- **DoE ECA Review Panel:**, DoE Office of Nuclear Science Early Career Award. This international panel recommends outstanding early career candidates for DoE ECA funding awards. March 2022. http://www.doe.gov/
- **LOC: DIS2024 Workshop:** 2024 International Workshop on Deeply Inelastic Scattering & Related Subjects, **Local Organizing Committee (LOC).**
  Grenoble, France, 8-12 April, 2024.
  `www.dis2024.org`
- **DoE Review Panel:**, JLab SoLID (Solenoidal Large Intensity Device) Project. This project would provide Jefferson Laboratory with a major facility upgrade extending into the next decade. March, 2021. http://www.jlab.org/
- **Nominating Committee**, APS GHP: (Group on Hadron Physics). 2021–present.

- **Workshop Organizer**, EIC – CFNS Workshop:
  "Physics Opportunities with Heavy Quarkonia at the EIC." Center for Frontiers in Nuclear Science (CFNS), Stony Brook University, 25–27 October 2021.

- **Workshop Organizer**, EIC – CFNS Workshop:
  "Opportunities with Heavy Flavor at the EIC." Center for Frontiers in Nuclear Science (CFNS), Stony Brook University, 4–6 November 2020.

- **Invited Keynote Lecture**, Jefferson Laboratory, Experimental Hall A&C" Summer Meeting. "Nuclear PDFs & Lepton–Nucleon Scattering," 16 July 2020.

- **LOC: DIS2020 Workshop:** XXVII International Workshop on Deeply Inelastic Scattering & Related Subjects, **Local Organizing Committee (LOC).** Brooklyn, New York. 23-27 March 2020, hosted by Stony Brook University. [*Cancelled due to COVID-19.*]

- **Workshop Organizer**, Parton Distribution and Lattice Calculations (PDFLattice 2019)
  Michgan State University, Kellogg Biological Station. 25-27 September 2019.
  The conference white-paper has been published: **Prog.Part.Nucl.Phys.** 121 (2021) 103908.

- **Editor: DIS Strategy Document for EPPSU**, The DIS International Advisory Committee (IAC) appointed 5 editors representing the DIS community to draft the DIS whitepaper for the European Particle Physics Strategy Update 2020 (EPPSU); I was selected to represent the theory community. [arXiV:1812.08110]

- **Co-Convener:** Parton Distribution Functions (PDFs) working group.
  *LHeC Physics Programme Study Group*, (2014– 2023) `lhec.web.cern.ch`

  - **Workshop Organizer**, Workshop on LHeC/Perle/FCC-he.
    IJCLab Orsay, October 26-28.2022

  - **Workshop:** Electrons for the LHC - LHeC/FCCeh and Perle Workshop.
    24-25 October 2019, Chavannes de Bogis, & CERN, Geneva Switzerland.

  - **Workshop:** Electrons for the LHC - LHeC/FCCeh and Perle Workshop.
    27-29 June 2018, Laboratoire de l'Accélérateur Linéaire (LAL) Orsay, France.

  - **Workshop organization:** *Workshop on the LHeC and FCC-eh*,
    11-13 September 2017, CERN, Geneva, Switzerland.

- **Invited Plenary Speaker**, Electron Ion Collider (EIC) Users Group Meeting, 30 July – 2 August, 2018. The Catholic University of America, Washington DC. *CTEQ and PDFs in the EIC era.*

- **Workshop Organizer**, Parton Distribution and Lattice Calculations in the LHC era.
  Oxford University, UK. 22–24 March 2017.
  The conference white-paper has been published in
  *Progress in Particle and Nuclear Physics: 100 (2018) 107-160.*

- **Organizing committee**, *Joint CTEQ and POETIC 7 Meeting*
  (7th International Conference on Physics Opportunities at an Electron-Ion-Collider)
  Temple University, November 14-18, 2016

- **CTEQ Summer School & Workshop:**
  Organizing Committee & Lecturer: CTEQ (Coordinated Theoretical-Experimental Project on QCD) Summer School & Workshop. `www.cteq.org`
  - **2024** CTEQ Summer School: 21-31 August, Muenster University, Germany
  - **2023** CFNS-CTEQ Summer School: 5-19 June, Stony Brook University, NY, USA
  - **2022** CTEQ Summer School: 6-16 July, University of Pittsburgh, PA, USA
  - **2021** CTEQ Summer School: 5-15 September; University Dresden, Germany (*Virtual*)
  - **2020** CTEQ Summer School: University Karlsruhe, Germany (*Cancelled: Covid-19*)
  - **2019** CTEQ Summer School: 16-26 July; University of Pittsburgh, PA, USA
  - **2018** CTEQ Summer School: 18-28 June; University of Mayaguez, Puerto Rico, USA
    - *Also presented PDF tutorial.*
  - **2017** CTEQ Summer School: 18-28 July; University of Pittsburgh, PA, USA
    - *Also presented 4 introductory lectures.*
  - **2016** CTEQ-MCnet Summer School: 6-16 July; DESY Lab, Hamburg, Germany
  - **2015** CTEQ Summer School: 7-17 July; University of Pittsburgh, PA, USA
  - **2014** CTEQ Summer School: 8-18 July; Peking University, Beijing, China
  - **2013** CTEQ Summer School: 7-17 July; University of Pittsburgh, PA, USA
  - **2012** CTEQ Summer School: 30 July-9 August; Lima, Peru
    - *Also presented DIS lectures.*
  - **2011** CTEQ Summer School: 10-20 July; Madison, Wisconsin, USA
    - *Also presented heavy quark lectures.*
  - **2010** CTEQ-MCnet Summer School: 26 July-4 August; Lauterbad, Germany
    - *Also presented 4 introductory lectures.*
  - **2008** CTEQ-MCnet Summer School: 8-16 August; Debrecen, Hungary.

- **DIS2015: Lead Organizer**, 2015 Deep Inelastic Scattering (DIS) Workshop. Hosted at SMU, Dallas TX, 27 April – 1 May 2015. `www.dis2015.org`

- **Deep Inelastic Scattering (DIS) Workshop series:**
  Member, **International Advisory Committee (IAC)** 2012-Present.
  2024: April 8 - 12, 2024, LPSC Grenoble, France.
  2023: March 27-31, 2023, MSU, East Lansing, MI, USA.
  2022: May 2-6, 2022, Santiago de Compostela, Spain.
  2021: April 12–16, 2021, Stony Brook University, NY, USA.
  2020: March 23–27, 2020, Stony Brook University, NY, USA. (*Cancelled: Covid-19*)
  2019: April 8–12, 2019, University of Torino, Italy.
  2018: April 16–20, 2018, University of Kobe, Japan.
  2017: April 3–7, 2017, University of Birmingham, UK.
  2016: April 11–15, 2016, DESY Laboratory, Hamburg, Germany.
  2015: April 27 to May 1, 2015, SMU Dallas, TX, USA.
  2014: April 28 to May 2, 2014, Warsaw, Poland.
  2013: April 22–26, 2013, Marseilles, France.
  2012: March 26–30, 2012, Bonn, Germany.

- **Session Convener:** XIX International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS 2011) April 11-15, 2011. Newport News, VA USA

- **DESY "Theorist of the Week:"** March 2010, Helmholtz Alliance, DESY, Hamburg Germany

- **SMU QuarkNet:** Organized and instructed SMU QuarkNet workshop for local High School science teachers. *2001-2017, 2022.*

- **Dallas Regional Science Fair:**
  • Co-Director (2000-2017);
  • Committee Member (2017–Present).
  1000+ seventh through twelfth grade students from Dallas (TEA Region 10) schools will be judged by 300+ judges from area businesses, professional organizations and schools. `www.DallasScienceFair.org`

- "Mathematica for Physics" has been translated into Japanese [ISBN 4-89471-162-1], and the 2nd edition [ISBN 0-201-53796-6] was released in 2002.

## Teaching Experience:

- **2017 Robert S. Hyer Research Award,** of the Texas Section of the American Physical Society, graduate mentor award together with graduate student Eric Godat. `https://www.aps.org/units/tsaps/awards/hyer/`
- **Outstanding Faculty Award:** My receipt of the 2000 SMU President's Associates Outstanding Faculty Award was based on both my teaching and research performance.
- **H.O.P.E. Distinguished Honoree Award:** Spring 2001. I also received a H.O.P.E. (Honored on Professor Excellence) Award in both 1999 and 2000. Recipients are selected, based upon teaching excellence, by the SMU student RA's.
- **Music & Physics Course:** In 2000, I developed a novel physics course (PHYS 1320, Music & Physics) in collaboration with Professor Tom Tunks of the Meadows School of Music. This course is popular with the Meadows music students.
- **The Secret City: Los Alamos and the Atomic Age:** In collaboration with Prof. James Hopkins (History), I developed new course for the 2006 Taos Cultural Institute. *"This was the most stimulating and interesting cultural course I've ever taken, and I will encourage my friends to take it next year. I absolutely loved every minute!"* Nancy Dedman, participant in the 2006 Los Alamos course.
- **Southern Methodist University:** *Fall 1991 - Present.* General Physics 1303 & 1304, 1403 & 1404, Music & Physics 1320, Cosmology & Astrophysics 3368, Methods of Theoretical Physics 4321, Electromagnetism 4392, Solid State Physics 5337, Graduate Classical Mechanics 6321, Particle Physics 7360, Quantum Field Theory 7314.

  *Median score of teaching evaluations by students are consistently 9 or 10 on a scale of 10 (old system), or 3 or 4 on a scale of 4 (new system).*
- **University of Oregon:** *Fall Term 1989.* General Physics: Newtonian Mechanics. Enrollment of 208 students; 4 lectures and 2 help sessions per week; supervised 3 graduate teaching assistants; wrote exams and quizzes.

  *Based on formal university survey, received outstanding recommendations from students: rated 4.22 of 5.00; 12 year department average, 3.68 of 5.00.*
- **University of Wisconsin–Madison:** *Fall 1980 - Spring 1982.* Teaching Assistant for 4 semesters in General Physics. Taught 4 one hour recitations and 2 three hour labs per week. Approximately 20 students per class.

## Personal Diversions:

- Special presentations of *A Physics Circus*, *Music and Physics: A Harmonic Function*, and lectures on *The Group Theory of Rubik's Cube*. Perform baroque and classical trumpet solos for weddings and other events; play with a brass ensemble. Perform piccolo trumpet solos for church services and weddings including services at SMU's Perkins Chapel.

## Graduate Student Supervision at SMU:

- Director, Graduate Physics Program, 1995-98. I recruited graduate students for our program, and also coordinated the program for the enrolled students.
- B. Alex King, M.S. (1994). Projects: Matrix elements for radiative $\tau$ decay ($\tau \to \nu_\tau \mu \nu_\mu e^+ e^-$) with FORM and FeynCalc, and Mathematica.
- Guoheng Wei, M.S. (1995). Projects: Mathematica Mathlink interface and associated investigations for CTEQ2 PDF code. (M.S. Thesis with Stroynowski.)
- Guanyao Bao, M.S. (1995). Projects: Mathematica notebooks and associated investigations for CTEQ3 PDF code.
- Ge Li, M.S. (1995). Projects: Miscellaneous Mathematica based topics.
- Jian Wang, M.S. (1997). Projects: Choice of initial parameterizations of PDF's for global analysis. (Sec. 2E, hep-ph/9706470)
- Wanjun Yu, M.S. (1997). $\{x, Q^2\}$ Kinematic Maps for PDF's. (hep-ph/9706470)
- Michael Harris, M.S. (1997). Projects: Miscellaneous Mathematica based topics.
- Elena Magar, (1999-2000). Projects: Mathematica notebooks and associated investigations for CTEQ4 PDF code.
- Tamara Trout, (2000-01). Projects: Mathematica notebooks and associated investigations for CTEQ5 PDF code. $d\sigma/dP_T$ investigations for neutrino DIS charm production.
- Jack Daeschler, (2001-02). NLO calculations for heavy quarks at Tevatron Run II.
- Yon Cole, M.S. (2006). Projects: Spin-dependent structure functions ($g_1$) in the asymptotic region.
- Director, Physics MS Program (2014–2018). Supervised our terminal MS program and served on the committees for: Nourah Abdulrahman Alothman (2016), Ashwaq Nasser Albalawi (2017), Aish M. Somily (2018).
- Benjamin Clark, Ph.D. (2010-2016) W/Z Distributions at the LHC for Proton and Nuclear Beams
- Eric Godat, Ph.D. (2013-2018) A Study Of The Impact Of $pPb$ $W/Z$ Data On nCTEQ15 PDF Parton Distribution Functions (PDFs).
- Jesse Kent. (2017–2022) nCTEQ PDF topics.
- Lucas Kotz. (2020) EIC & xFitter PDF topics.
- Brandon Stevenson. (2020) EIC & xFitter PDF topics.
- Rebecca Moore (2021) EIC & xFitter PDF topics.
- Cole Billingsley (2022) EIC & xFitter PDF topics.

- Austin Mullins (2022) EIC & xFitter PDF topics.
- Rebecca Preston (2023–present) SURGE Collaboration projects.
- Junaid KHan (2023–present) EIC & xFitter PDF topics.
- Brandon Stevenson (2023–present) SURGE Collaboration projects.

## Director, SMU Summer STEM Research Program: (2017–2020)

**SMU Summer STEM Research Program** is an intensive summer research program for students in STEM fields. This program was initiated by Professor Olness in 2017. The program provides intensive research experience, and this is highly desirable for scholarship applications and graduate school applications. Programs include:

- The University of Glasgow, Scotland. 2017–2020.
- The University of Aberdeen, Scotland. 2019–2020.
- University of Dublin, Ireland. 2019–20.

The program incorporates the **SMU Engaged Learning (EL)** initiative which helps students develop a significant and sophisticated understanding of disciplinary knowledge by putting it into practice while a student at SMU.

Recent Engaged Learning mentored students include:

- Micah Oxner (2019-2020) U. Aberdeen. Project: *Breast Cancer Biology Research.*
- Avery Wacker (2019-2020) U. Glasgow. Project: *Mesophiles And Thermophiles In The Urban Environment.*
- Pooja Tewari: (2018-20) U. Glasgow. Project: *Glasgow Viruses and Bacteria in Freshwater: A Historical Record of Past Pollution?*
- Elena Skaribas: (2018-19) U. Glasgow. Project: *Glasgow Autism And Intersubject Correlation Of Brain Activity While Watching Dance.*
- Nicole Rueb: (2017-18) U. Glasgow. Project: *Using Caenorhabditis elegans as a Model Organism for Genetic Screens.*
- Tolulope Salako: (2017-18). U Glasgow. Project: *fMRI for neurofeedback of brain state during listening to music.*
- Theresa Lam: (2017-18) U. Glasgow. Project: *Viruses in freshwater.*

## Undergraduate Student Supervision at SMU:

- **Xixi Zhou (2019-20)** Robert Mayer Interdisciplinary Research Fellowship Program. Project: *Study of Bassoon Tone Quality from Acoustic Analyses.*
  Supervised by Prof. Olness & Pawel Wnuk (Professor of Practice in Bassoon).

- I have organized trips for our physics majors to visit national laboratory facilities including Fermilab (Chicago), SLAC & LBL (San Francisco), and BNL (New York).
- I often teach 3000 level majors courses (including Phys 3320 Music & Physics). This gives me a chance to work with the majors in a small group setting including developing their computational skills using Mathematica and other computer tools.
- Undergraduate Physics Co-Advisor, 1998-2001. During the period 1998-2001, I increased the number of physics majors from 4 to 12. This group of physics students was of exceptional quality, and included seven SMU President's Scholars in their ranks.[⋆] Additionally, Alonso Gutierrez and Michael Shearn were selected in a national competition to receive a prestigious Goldwater Scholarship. Additionally, in 2012 Alonso Gutierrez was selected to receive the SMU Emerging Leader Award.

## Memberships, Review and Editorial Activities:

- Member of the Coordinated Theoretical/Experimental Project on Quantitative QCD (CTEQ) collaboration
  Member: (1991–Present).
  Co-Spokesperson (2010–2014).
- Member of the xFitter Developer Team
  (2013–Present). *http://www.xfitter.org*
- Member and SMU Institutional Representative, Electron Ion Collider (EIC) Users Group.
  (2017–Present). *http://eicug.org*
- Member, Deep Inelastic Scattering (DIS) Workshop series International Advisory Committee (IAC) 2012-Present.
- Referee for:
  The Physical Review
  Physics Letters B
  European Physics Letters
  Advances in High Energy Physics
  Zeitschrift für Physik C
  Computer Physics Communications
  Addison-Wesley Publishing Co.
  John Wiley & Sons Inc. Publishing Co.
- Reviewer for:
  Department of Energy
  National Science Foundation
  U.S. Civilian Research & Development Foundation

⋆ Anne Burnham, Alonso Gutierrez, April Kramer, Chad Myers, Michael Shearn, Shannon Thornton, and Clifford Yapp.

- *Memberships:*
  Sigma Xi Scientific Research Society;
  American Physical Society;
  American Institute of Physics.
  American Association for the Advancement of Science (AAAS)

## University Service and Committees:

*Arranged in approximate chronological order.*

- Academic Research Computing Steering Committee. 1994-95
- Director of Graduate Studies in Physics. 1995-1997
- Director of Undergraduate Studies in Physics. 1998-2001
- Commission on Teaching and Learning—Center for Teaching Excellence.
  2000-2003, and 2006.
- Dedman College Undergraduate Council. 2000
- Strategic Plan for Informational Technology: Academic and Research Computing. 2001
- SMU Faculty Senate; member 2001-2007;
  Senate Executive Committee (2001-2003);
  Finance Committee (2001-2007).
- Academic and Research Computing Committee (ARCC). (2002-2007)
  Chair (2004-2006).
- University Committee on Informational Technology (UCIT) (2004-2006).
- Dedman College Tenure and Promotion Committee (2003-2005).
- Dedman College Dean's Search Committee (2005-06)
- Upper-class President's Scholars Review Panel (2003-2007).
- Advisor, Dean's Scholars Program (2005-2007).
- School of Engineering Tenure and Promotion Committee (2006-2007).
- Chair, AVP for Research and Dean of Graduate Studies committee (2006-2007).

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- APEC, Biology Department Review Pannel, 2008-2009.
- SMU Faculty Senate; member 2008-2011;
  Senate Executive Committee (2008-2011);
  President Elect, (2008-2009).
  President, (2009-2010).
  Past-President, (2010-2011).
- Chair, Faculty Senate Research Committee, (2010-2012).
- APEC, Chemistry Department Review Pannel, 2011-2012.
- Chair, Department of Physics. 2001–2007, 2010–2015.
- Member, "Second Century Campus Master Plan" Oversight Committee, 2014–2015.
- Member, Operational Excellence for the 2nd Century (OE2C) Travel Initiative Committee. 2014-2015.
- Member, Operational Excellence for the 2nd Century (OE2C) Travel Implementation Team (w/ Concur) 2015.
- Meadows Tenure and Promotion Committee (2015-2016).
- Faculty Representative: SMU Board of Trustees Building & Grounds Committee. 2013–2016:
- Co-Chair, Campaign Steering Committee for Faculty and Staff, 2012–2015.
- Member, Simmons School Dean's Search Committee, 2016–2017.
- Director, Physics MS program. 2014–2018.
- Director and faculty adviser, SMU STEM Summer Research Program. 2016-2020.
- Mentor, SMU Engaged Learning Projects: 7 students: 2017-2020
- Member, SMU Education Abroad Council. 2017–2020.
- Member, SMU Senate Ad-Hoc Committee: (SMU Senate Membership issues). 2019.
- Member, SMU Colonial Group Survey Committee. 2019-20.
- Co-Chair, Faculty & Staff Giving Campaign Committee. 2015–2022.
- Faculty Representative, SMU Pony Power Leadership Committee. 2017–2022.

# Books:

- *Mathematica for Physics*, First edition. ISBN 0-201-53796-6. By Robert Zimmerman & Fredrick Olness, published by Addison-Wesley, Reading, MA (1994). Foreword by Stephen Wolfram, creator of Mathematica.

- *Mathematica for Physics*, Japanese translation. ISBN4-89471-162-1.

- Mathematica For Physics: 2nd Edition. ISBN 0-201-53796-6. By Robert Zimmerman & Fredrick Olness, published by Addison-Wesley, Reading, MA (2002). Foreword by Stephen Wolfram, creator of Mathematica. The second edition is expanded to include a wider variety of topics in more depth.

  This is a textbook designed to incorporate the computer algebra program Mathematica into the core physics curriculum. This book includes solved examples of classic physics problems which will inspire the student to reproduce, modify, and experiment with them. Topics include: Mechanics, Electromagnetism, Quantum Mechanics, Relativity and Cosmology Oscillating Systems, Non-Linear Systems, Discrete Dynamical Systems, Lagrangians and Hamiltonians, and Orbiting Bodies.
  An electronic supplement complements the text, and is available at `www.physcs.smu.edu/olness`

# Publications:

*Arranged in chronological order.*

1) *Constraints on the Right W–Boson Mass in Non–Manifest Left–Right Gauge Theories,* with M. E. Ebel; *Physical Review* **D30**, 1034 (1984).

2) *Constraints on the Higgs Boson Masses in Left-Right Electroweak Gauge Theories,* with M. E. Ebel; *Physical Review* **D32**, 1769 (1985).

3) *Constraints on Extended Electroweak Theories,*
Ph.D. Thesis, University Microfilm Inc. (UMI) 85-19780-mc, (1985).

4) *Factorization of Helicity Amplitudes in Electroweak Processes,* with W.-K. Tung;
*Physical Review* **D35**, 833 (1987).

5) *Probing the Tri-Boson Coupling in High-Energy Vector Boson Pair Production,* with W.-K. Tung;
*Physics Letters* **B179**, 269 (1986).

6) *Probing the Tri-Boson Coupling in High-Energy Vector Boson Pair Production and the Factorization of Helicity Amplitudes,* with W.-K. Tung. Presented at 1986 Workshop at the University of Wisconsin-Madison;
*Physics Simulations at High Energy*, (ed., V. Barger *et al.*), p. 614, (1986).

7) *Strongly Interacting Particles from Cygnus X-3,* with J. C. Collins. Invited talk at 23rd Int. Conf. on High Energy Physics, Berkeley, CA, July 16–23, 1986;
*Proc. of the XXIII Int. Conf. on High Energy Physics*, (ed., S. C. Loken), p. 1325, (1987).

8) *Probing The W - Z Higgs Sector Of Electroweak Gauge Theories At The Superconducting Super Collider,* with J. F. Gunion, *et al.*, 1986 Summer Study at Snowmass, Colorado, 1986;
*Proc. of 1986 Summer Study on the Physics of the Superconducting SuperCollider*, (ed., R. Donaldson and J. Marx), p. 142 (1987).

9) *Intrinsic Polarization of the High-Energy W-Boson Structure Functions,* with J. P. Ralston. 1986 Summer Study at Snowmass, Colorado, 1986;
*Proc. of 1986 Summer Study on the Physics of the Superconducting SuperCollider*, (ed., R. Donaldson and J. Marx), p. 191 (1987).

10) *A Precise Formulation of the Effective-Vector-Boson Method for High Energy Collisions,* with P. W. Johnson and W.-K. Tung. 1986 Summer Study at Snowmass, Colorado;
*Proc. of 1986 Summer Study on the Physics of the Superconducting SuperCollider*, (ed., R. Donaldson and J. Marx), p. 164 (1987).

11) *Production and Detection at SSC of Higgs Bosons in Left-Right Symmetric Theories,* with J. F. Gunion, B. Kayser, R. N. Mohapatra, N. G. Deshpande, J. Grifols, A. Mendez, P. B. Pal. 1986 Summer Study at Snowmass, Colorado;
*Proc. of 1986 Summer Study on the Physics of the Superconducting SuperCollider*, (ed., R. Donaldson and J. Marx), p. 197 (1987).

12) *New Physics from Cygnus X-3*, with J. C. Collins.
*Physics Letters* **B187**, 376 (1987).

13) *The Effective-Vector-Boson Method for High Energy Collisions*, with P. W. Johnson and W.-K. Tung. Presented at *1987 DFP Meeting, Salt Lake City, Utah, January 1987.*
*Physical Review* **D36**, 291 (1987).

14) *Small-x Physics at SSC and the Tevatron*, with W.-K. Tung.
*Int. Journal of Modern Physics* **A2**, 1413 (1987).

15) *Is the Left-Right Higgs Sector Observable?*, with J. Gunion and A. Mendez.
*Int. Journal of Modern Physics* **A2**, 1085 (1987).

16) *Contribution of Transverse Gauge Bosons to Higgs Production and the Equivalent Vector Boson Approximation*, with R. M. Godbole.
*Int. Journal of Modern Physics* **A2**, 1025 (1987).

17) *Charged Higgs Production Cross-Section and Heavy Quark Mass Effects in the QCD-Improved Parton Model*, with W.-K. Tung.
*Nuclear Physics* **B308**, 813 (1988).

18) *Minijets and B-Pairs: Analytic and Numeric Results for Small-x Dominated Processes*, with J. C. Collins and S. Lomatch.
*Nuclear Physics* **B317**, 617 (1989).

19) *When is a Heavy Quark not a Parton?*, with Wu-Ki Tung. Proceedings of the 1988 Lake Louise Winter Institute, Lake Louise, Alberta, Canada, March 1988.
*Quantum Chromodynamics: Theory and Experiment*, (ed. B. Campbell et. al), p. 515 (1988).

20) *Heavy Quarks in the QCD Based Parton Model*, with Wu-Ki Tung. Proceedings of the XXIII'rd Rencontre de Moriond, Les Arcs, France, March 1988.
*Current Issues in Hadron Physics*, (ed. J. Tran Thanh Van), (1988).

21) *Production Mechanisms for Non-Minimal Higgs Bosons at an $e^+e^-$ Collider*, with J. Gunion, L. Roszkowski, A. Turski, H. Haber, G. Gamberini, B. Kayser, S. Novaes, and J. Wudka.
*Physical Review* **D38**, 3444 (1988).

22) *New Particles in ep Collisions*, with W. Smith, D. Atwood, A. Caldwell, F. Cornet, G. Couture, M. Drees, W. Frisken, C. Heusch, J. Hewett, B. Irwin, U. Mallik, D. Reeder, T. Rizzo, J. Robinson, K. Sugano, J. Woodside, and D. Zeppenfeld. Proceedings of the Summer Study on High Energy Physics in the 1990s, June 27-July 15, 1988, Snowmass, Colo.;
*High Energy Physics in the 1990s*, (ed., S. Jensen), p. 195 (1989).

23) *Structure Functions and Parton Distributions*, Proceedings of the Summer Study on High Energy Physics in the 1990s, June 27-July 15, 1988, Snowmass, Colo.;
*High Energy Physics in the 1990s*, (ed., S. Jensen), p. 305 (1989).

24) *Higgs Bosons in Left-Right Symmetric Models*, with J. Gunion, J. Grifols, A. Mendez, and B. Kayser.
*Physical Review* **D40**, 1546 (1989).

25) *Understanding QCD at Colliders*, Proceedings of the 1989 Lake Louise Winter Institute, Lake Louise, Alberta, Canada, February 1989;
*Frontiers in Physics–From Colliders to Cosmology*, (ed., A. Astbury, et. al), p. 383 (1989).

26) *When is a Heavy Quark not a Parton? Charged Higgs Production and Heavy Quark Mass Effects in the QCD-Based Parton Model*, with W.-K. Tung. In Proc. of XII Warsaw Symp. on Elementary Particle Physics, Kazimierz, Poland, May 29 - Jun 2, 1989;
*Frontiers in Particle Physics*, (ed., Z. Ajduk, et. al), p. 375 (1990).

27) *Left-Right Symmetric Electroweak Models*, In Proc. of XII Warsaw Symp. on Elementary Particle Physics, Kazimierz, Poland, May 29 - Jun 2, 1989;
*Frontiers in Particle Physics*, (ed., Z. Ajduk, et. al), p. 602 (1990).

28) *Comment on the $Z \to \pi^0 \gamma$ and the Axial Anomaly*, with N.G. Deshpande and Palash B. Pal,
*Physics Letters* **B241**, 119 (1990).

29) *Left-Right Symmetric Electroweak Models with Triplet Higgs*, with N.G. Deshpande, J.F. Gunion, and B. Kayser.
*Physical Review* **44**, 837 (1991).

30) *QCD Formulation of Charm Production in Deep Inelastic Scattering and the Sea Quark—Gluon Dichotomy*, with M.A.G. Aivazis and Wu-Ki Tung.
*Physical Review Letters* **65**, 2339 (1990).

31) *Structure Functions and Parton Distribution Functions*, with W. Tung.
Proceedings of the *1990 DPF Summer Study on High Energy Physics: Research Directions for the Decade*, Snowmass, CO, p. 148, (1992).

32) *ep Collider Experiments and Physics*, with D. Atwood, U. Baur, J. Blümlein, G. Couture, M. A. Doncheski, R. Fletcher, D. Goddard, S. Godfrey, J. L. Hewett, D. P. Johnson, S. Keller, B. A. Kniehl, G. Levman, R. Lewis, L. Marleau, S. Mani, R. Meng, R. Orr, D. Reeder, T. G. Rizzo, G. Schuler, W. H. Smith, H. Spiesberger, K. Sugano, and R. Talaga.
Proceedings of the *1990 DPF Summer Study on High Energy Physics: Research Directions for the Decade*, Snowmass, CO, p. 531, (1992).

33) *Kinematic Coverage of Structure Function Measurements*, with G.A. Schuler, J. Blümlein, and Wu-Ki Tung. Proceedings of the *1990 DPF Summer Study on High Energy Physics: Research Directions for the Decade*, Snowmass, CO, p. 152, (1992).

34) *Semi-Inclusive Deeply Inelastic Scattering at Electron-Proton Colliders*, with R. Meng and D. Soper.
*Nuclear Physics* **B371**, 79 (1992).

35) *Next-to-Leading Order QCD Formulation of Deep Inelastic Scattering*, with M.A.G. Aivazis and Wu-Ki Tung.
Presentation by F. Olness at *Particles & Fields '91: Meeting of the Division of Particles & Fields of the APS*, Vancouver, BC, Canada. 18-22 August, 1991.
*The Vancouver Meeting–Particles and Fields '91*, (ed. D. Axen, *et. al*), p. 663 (1992).

36) *Higgs bosons in the minimal supersymmetric extension of the Standard Model.* A. Brignole, J. Ellis, J.F. Gunion, M. Guzzo, F. Olness, G. Ridolfi, L. Roszkowski, and F. Zwirner. Proceedings of the Workshop: $e^+e^-$ *Linear Colliders at 500 GeV: the Physics Potential*, Ed. P.M. Zerwas, p.613, (1992).

37) *GEM Letter of Intent.* The GEM Collaboration. SSC Laboratory publication SSCL-SR-1184, Nov. 1991.

38) *A Unified QCD Formulation of Charged Current and Neutral Current Heavy Quark Production in Deep Inelastic Scattering*, with M.A.G. Aivazis and Wu-Ki Tung.
*The Fermilab Meeting DPF'92*, ed. C. Albright *et al.*, p.981 (1993).

39) *GEM Technical Design Report*, W.C. Lefmann, et al., GEM-TN-93-262, Apr. (1993).

40) *A Unified QCD Formulation of Charged Current and Neutral Current Heavy Quark Production in Deep Inelastic Scattering*, M.A.G. Aivazis, F. Olness, and Wu-Ki Tung.
Physical Review **D50**, 3085 (1994).

41) *A Unified QCD Formulation of Charged Current and Neutral Current Heavy Quark Production in Deep Inelastic Scattering II: Next to Leading Order Calculation*, M.A.G. Aivazis, J. Collins, F. Olness, and Wu-Ki Tung.
Physical Review **D50**, 3102 (1994).

42) *Handbook of Perturbative QCD: Version 1.0*, CTEQ Collaboration, Raymond Brock, et al.,
*Reviews of Modern Physics*, **67**, p.157-248 (1995).

43) *Leptoproduction of Heavy Quarks in the Fixed and Variable Flavor Schemes*, F. Olness and S. Riemersma. Presentation by F. Olness at *Particles & Fields '94: Meeting of the Division of Particles & Fields of the APS*, Albuquerque, NM, 2-6 August 1994.
*The Albuquerque Meeting DPF '94*, ed. S. Seidel, p. 1698, (1995).

44) *Leptoproduction of Heavy Quarks in the Fixed and Variable Flavor Schemes*, F. Olness and S. Riemersma. Physical Review **D51**, 4746 (1995).

45) *Leptoproduction of Heavy Quarks*, Pankaj Agrawal, Fredrick I. Olness, Stephan T. Riemersma, Wu-Ki Tung. Presentation by F. Olness.
Proceedings of *30th Rencontres de Moriond: QCD and High Energy Hadronic Interactions*, Meribel les Allues, France, 19-25 Mar 1995, p. 353 (1995).

46) *Semi-Inclusive Deeply Inelastic Scattering at Electron-Proton Colliders: From Small to Large $P_T$*, with R. Meng and D. Soper.
Physical Review **D54**, 1919 (1996).

47) *Heavy Quark Hadroproduction: Resumming Large Logarithms Via Heavy Quark PDF's*, F. Olness, R. Scalise, and Wu-Ki Tung.
Presentation by R. Scalise. Published in the proceedings of the *Particles & Fields '96: Meeting of the Division of Particles & Fields of the APS*. World Scientific, Ed., K. Heller, J.K. Nelson, and D. Reeder. Minneapolis, MN, 10-15 August 1996, p.832.

48) *Structure Function Subgroup Summary,* M.G. Albrow, *et al.*
Proceedings of *New Directions for High-Energy Physics (Snowmass 96),* Snowmass, CO, 25 Jun - 12 Jul 1996. p.1079. hep-ph/9706470.
New Directions For High-Energy Physics: proceedings. Edited by D.G. Cassel, L. Trindle Gennari, R.H. Siemann. Stanford Linear Accelerator Center, 1997. p.1079-1092.

49) *QCD Subgroup On Diffractive And Forward Physics,* M.G. Albrow, *et al.*
Proceedings of *New Directions for High-Energy Physics (Snowmass 96),* Snowmass, CO, 25 Jun - 12 Jul 1996. ANL-HEP-CP-97-40.
New Directions For High-Energy Physics: proceedings. Edited by D.G. Cassel, L. Trindle Gennari, R.H. Siemann. Stanford Linear Accelerator Center, 1997. p.1109-1119.

50) *Precision Measurements Of Heavy Objects Working Group Summary,* M. Demarteau, V. Koulovassilopoulos, J. Lykken, F.I. Olness, S. Parke, R.J. Scalise, E. Varnes G.P. Yeh.
Contributed to *Very Large Hadron Collider Physics and Detector Workshop: Beyond the LHC,* Batavia, IL, 13-15 Mar 1997. hep-ph/9708331.

51) *Summary of the Very Large Hadron Collider Physics and Detector Workshop*, G. Anderson, U. Baur, M. Berger, F. Borcherdi, A. Brandt, D. Denisov, S. Eno, T. Han, S. Keller, D. Khazins, T. LeCompte, J. Lykken, F. Olness, F. Paige, R. Scalise, L. Simmons, G. Snow, C. Taylor, J. Womersley.
Conference report of: *Physics at the high energy frontier beyond the LHC*, March 13-15, 1997, Fermi National Accelerator Laboratory, Batavia, Illinois. hep-ph/9710254.

52) *Selective Transfer of Calcium from an Acidic Compartment of the Mitochondrion of Trypanosoma brucei: Measurements with Targeted Aequorins*, Zhao-Hui Xiong, Evelyn L. Ridgley, David Enis, Fred Olness, and Larry Ruben.
Journal of Biological Chemistry, Vol. 272, No. 49, p. 31022, 1997.

53) *Improved Parton Distributions From Global Analysis Of Recent Deep Inelastic Scattering And Inclusive Jet Data*, H.L. Lai, J. Huston, S. Kuhlmann, F. Olness, J. Owens, D. Soper, W.K. Tung, H. Weerts.
Physical Review **D55**, 1280 (1997).

54) *Heavy Quark Parton Distributions: Mass Dependent Or Mass Independent Evolution?* F.I. Olness, R.J. Scalise.
Physical Review **D57**, 241 (1998).

55) *Heavy Quark Parton Distributions: Mass Dependent Or Mass Independent Evolution?* F.I. Olness, R.J. Scalise.
Proceedings of the 5th International Workshop on Deep Inelastic Scattering and QCD (DIS 97), Chicago, IL, 14-18 Apr 1997, p.320.

56) *Study Of The Uncertainty Of The Gluon Distribution.* J. Huston, S. Kuhlmann, H.L. Lai, F. Olness, J.F. Owens, D.E. Soper, W.K. Tung. FERMILAB-CONF-98-180-T.
Proceedings of 6th International Workshop on Deep Inelastic Scattering and QCD (DIS 98), Brussels, Belgium, 4-8 Apr 1998, p.166.

57) *Theoretical Description Of Heavy Quark Production In DIS*, J. Amundson, F. Olness, C. Schmidt, W.K. Tung, and X. Wang. FERMILAB-CONF-98-153-T.
Proceedings of 6th International Workshop on Deep Inelastic Scattering and QCD (DIS 98), Brussels, Belgium, 4-8 Apr 1998, p.141.

58) *Heavy Quark Hadroproduction in Perturbative QCD*, F. Olness, R. Scalise, and Wu-Ki Tung. hep-ph/9712494.
Physical Review **D59**, 014506 (1999).

59) *Study Of The Uncertainty Of The Gluon Distribution.* J. Huston, S. Kuhlmann, H.L. Lai, F. Olness, J.F. Owens, D.E. Soper, W.K. Tung. hep-ph/9801444.
Physical Review **D58**, 114034 (1998).

60) *Asymptotic high energy behavior of the deeply virtual Compton scattering amplitude*, B.I. Ermolaev, F. Olness, A.G. Shuvaev.
Physical Review **D60**, 034013 (1999).

61) *Deep inelastic scattering at a muon collider: Neutrino physics*, H. Schellman *et al.*. Workshop on Physics at the First Muon Collider, Batavia, IL, 6-9 Nov 1997, pp.166-176.

62) *Heavy Quark Production*, F.I. Olness. (hep-ph/9812270) 4th Workshop on Heavy Quarks at Fixed Target (HQ 98), Batavia, IL, 10-12 Oct 1998, pp. 238-247.

63) *Global QCD Analysis Of Parton Structure Of The Nucleon: CTEQ5 Parton Distributions*, CTEQ Collaboration: H. L. Lai, J. Huston, S. Kuhlmann, J. Morfin, F. Olness, J. F. Owens, J. Pumplin, W. K. Tung, hep-ph/9903282.
Eur. Phys. J. C12: 375-392, (2000).

64) *Asymptotic Properties Of DVCS*, B.I. Ermolaev, F. Olness, A.G. Shuvaev.
Nuclear Physics B (Proc. Suppl.) 79, 570 (1999).

65) *Heavy Quark Production In DIS And Hadron Colliders*, F.I. Olness. e-Print Archive: hep-ph/9906295
Proceedings of 13th Topical Conference on Hadron Collider Physics, Mumbai, India, 14-20 Jan 1999.

66) *Searching For Strongly Interacting Massive Particles (SIMPS)*, R.N. Mohapatra, F. Olness, R. Stroynowski, V.L. Teplitz. hep-ph/9906421.
Phys. Rev. D60: 115013, (1999).

67) SIMP (Strongly Interacting Massive Particle) Search. Vigdor L. Teplitz, Rabindra N. Mohapatra, Fred Olness, Ryszard Stroynowski. SMU-HEP-00-05, Dec 1999. Proceedings of International Conference on Orbis Scientiae 1999: Quantum Gravity, Generalized Theory of Gravitation and Superstring Theory Based Unification (28th Conference on High Energy Physics and Cosmology Since 1964), Fort Launderdale, Florida, 16-19 Dec 1999. e-Print Archive: hep-ph/0002119

68) R. Demina, S. Keller, M. Kramer, S. Kretzer, R. Martin, F.I. Olness, R.J. Scalise, D.E. Soper, W.K. Tung, N. Varelas, U.K. Yang. *Heavy quark production and PDF's subgroup report*, hep-ph/0005112. Report of the Heavy Quark subgroup of the Parton Distributions Working Group of the "QCD and Weak Boson Physics workshop in preparation for Run II at the Fermilab Tevatron."

69) L.de Barbaro, E.L. Berger, R. Brock, D. Casey, R. Demina, W.T. Giele, R. Hirosky, J. Huston, J. Kalk, S.A. Keller, M. Klasen, D.A. Kosower, M. Kramer, S. Kretzer, S. Kuhlmann, R. Martin, F.I. Olness, T. Plehn, J. Pumplin, R.J. Scalise, H. Schellman, J. Smith, D.E. Soper, G. Sterman, D. Stump, W.K. Tung, N. Varelas, W. Vogelsang, U.K. Yang. *Parton Distributions Working Group*, Jun 2000. e-Print Archive: hep-ph/0006300 Report of the Parton Distributions Working Group of the "QCD and Weak Boson Physics workshop in preparation for Run II at the Fermilab Tevatron."

70) SIMP (Strongly Interacting Massive Particle) Search. Vigdor L. Teplitz, Rabindra N. Mohapatra, Fred Olness, Ryszard Stroynowski. Proceedings of 4th International Symposium on Sources and Detection of Dark Matter in the Universe (DM 2000), Marina del Rey, California, 23-25 Feb 2000. hep-ph/000511

71) Large-x Parton Distributions. S. Kuhlmann, J. Huston, J. Morfin, F. Olness, J. Pumplin, J.F. Owens, W.K. Tung, J.J. Whitmore. Proceedings of the "Workshop on Nucleon Structure in the High x-Bjorken Region (HiX2000)," Temple University, Philadelphia, Pennsylvania, March 30-April 1, 2000. hep-ph/0007140.

72) Parton Densitites at High-x S. Kuhlmann, J. Huston, J. Morfin, F. Olness, J. Pumplin, J.F. Owens, W.K. Tung, J.J. Whitmore. Proceedings of 8th International Workshop on Deep Inelastic Scattering and QCD (DIS 2000), Liverpool, England, 25-30 Apr 2000. hep-ph/0007141.

73) *Large x Parton Distributions*, S. Kuhlmann, J. Huston, J. Morfin, F. Olness, J. Pumplin, J.F. Owens, W.K. Tung, J.J. Whitmore. Dec 1999. e-Print Archive: hep-ph/9912283
Phys. Lett. B476, 291 (2000).

74) *Treatment of Heavy Quarks in Deeply Inelastic Scattering*, M. Krämer, F. Olness, D. Soper. e-Print Archive: hep-ph/0003035
Phys. Rev. D **62**, 096007 (2000).

75) *Predictions for Neutrino Structure Functions*, S. Kretzer, F.I. Olness, R.J. Scalise, R.S. Thorne, U.K. Yang. e-Print Archive: hep-ph/0101088. January (2001).
Phys. Rev. D **64**, 033003 (2001).

76) "E1 working group summary: Neutrino factories and muon colliders," T. Adams *et al.*, in *Proc. of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ,
Published in eConf C010630:E1001,2001. [arXiv:hep-ph/0111030]

77) "Differential distributions for NLO neutrino-production of charm," S. Kretzer, D. Mason and F. Olness, in *Proc. of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ,
Published in eConf C010630:P507,2001. [arXiv:hep-ph/0112306]

78) "PDF's: What do we need to know?," F. Olness, in *Proc. of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ,
Published in eConf C010630:E502,2001. [arXiv:hep-ph/0112307]

79) "Working group on QCD and strong interactions," E. L. Berger *et al.*, in *Proc. of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ,
Published in eConf C010630:P5001,2001. [arXiv:hep-ph/0201146]

80) "Physics at future hadron colliders," U. Baur, R. Brock, J. Parsons, M. Albrow, D. Denisov, T. Han, A. Kotwal, F. Olness, J. Qian, S. Belyaev, *et al.*. In *Proc. of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ed. R. Davidson and C. Quigg,
Published in eConf C010630:E4001,2001. [arXiv:hep-ph/020122]

81) "The QCD/SM working group: Summary report," W. Giele *et al.* Workshop on "Physics at TeV Colliders", Les Houches, France, 21 May - 1 June 2001.
Published in *Les Houches 2001, Physics at TeV colliders*, 275-426. [arXiv:hep-ph/0204316.]

82) "Differential distributions for NLO analyses of charged current neutrino-production of charm," S. Kretzer, D. Mason and F. Olness, arXiv:hep-ph/0112191.
Phys. Rev. D **65**, 074010 (2002).

83) "Soft and collinear parton radiation in heavy quark production," P. M. Nadolsky, N. Kidonakis, F. Olness and C. P. Yuan. DPF 2002: The Meeting of the Division of Particles and Fields of the American Physical Society, Williamsburg, Virginia, 24-28 May 2002.
arXiv:hep-ph/0207332.

84) "Resummation of transverse momentum and mass logarithms in DIS heavy-quark production," P. M. Nadolsky, N. Kidonakis, F. Olness and C. P. Yuan,
arXiv:hep-ph/0210082.
Phys. Rev. D **67**, 074015 (2003)

85) "Neutrino Dimuon Data and the Strangeness Content of the Nucleon" F. Olness, J. Pumplin, D. Stump, J. Houston, P. Nadolsky, H.L. Lai, S. Kretzer, J.F. Owens, W. K. Tung.
[Report No. MSU-HEP-030701; BNL-NT-03/17; RBRC-329]
Contributed to: *XXI International Symposium on Lepton and Photon Interactions at High Energies (Lepton Photon 2003)*.

86) "The Parton Structure of the Nucleon and Precision Determination of the Weinberg Angle in Neutrino Scattering" S. Kretzer, F. Olness, J. Pumplin, D. Stump, W. K. Tung and M. H. Reno,
[Report No. BNL-NT-03/16; RBRC-328]
Contributed to: *XXI International Symposium on Lepton and Photon Interactions at High Energies (Lepton Photon 2003)*.

87) "CTEQ6 parton distributions with heavy quark mass effects," S. Kretzer, H. L. Lai, F. I. Olness and W. K. Tung,
arXiv:hep-ph/0307022.
Phys. Rev. D **69**, 114005 (2004).

88) "Neutrino charm production and implications for PDF's," F. Olness. arXiv:hep-ph/0311064.
*Proceedings of 11th International Workshop on Deep Inelastic Scattering (DIS 2003)*, St. Petersburg, Russia, 23-27 Apr 2003.

89) "Neutrino dimuon production and the strangeness asymmetry of the nucleon," F. Olness, J. Pumplin, D. Stump, J. Huston, P. Nadolsky, H.L. Lai, S. Kretzer, J.F. Owens, W.K. Tung,
arXiv:hep-ph/0312323.
European Journal of Physics, Vol. 40, pp. 145-156 (2005).

90) "The parton structure of the nucleon and precision determination of the Weinberg angle in neutrino scattering," S. Kretzer, F. Olness, J. Pumplin, D. Stump, W. K. Tung and M. H. Reno,
arXiv:hep-ph/0312322.
Phys. Rev. Lett. **93**, 041802 (2004).

91) "Resummation for the Tevatron and LHC boson production at small x," S. Berge, P. Nadolsky, F. Olness and C. P. Yuan, arXiv:hep-ph/0401128.
Contributed to *3'rd Les Houches Workshop: Physics at TeV Colliders*, Les Houches, France, 26 May - 6 Jun 2003.

92) M. Dobbs *et al.*, "The QCD/SM working group: Summary report," arXiv:hep-ph/0403100. Contributed to *3'rd Les Houches Workshop: Physics at TeV Colliders*, Les Houches, France, 26 May - 6 Jun 2003.

93) E. L. Berger, P. M. Nadolsky, F. I. Olness, and J. Pumplin, "Light gluino constituents of hadrons and a global analysis of hadron scattering data," [arXiv:hep-ph/0406143.]
Phys. Rev. D71: 014007, (2005)

94) "Transverse momentum resummation at small $x$ for the Tevatron and LHC," Stefan Berge, Pavel M. Nadolsky, Fredrick I. Olness, and C.-P. Yuan, [arXive:hep-ph/0410375]
*Phys. Rev. D* **72**, *033015 (2005)*

95) "Heavy quark parton distribution functions," S. Kretzer and F. I. Olness, Contributed to 13th International Workshop on Deep Inelastic Scattering (DIS 05), Madison, Wisconsin, 27 Apr - 1 May 2005. [arXiv:hep-ph/0508216.]
*AIP Conf.Proc. 792: 843-846, (2005)*

96) "$q_T$ uncertainties for W and Z production," S. Berge, P. M. Nadolsky, F. I. Olness and C. P. Yuan, Contributed to 13th International Workshop on Deep Inelastic Scattering (DIS 05), Madison, Wisconsin, 27 Apr - 1 May 2005. [arXiv:hep-ph/0508215.]
*AIP Conf.Proc. 792: 722-725, (2005)*

97) "Off-shell scattering amplitudes in the double-logarithmic approximation," B. I. Ermolaev, M. Greco, F. Olness and S. I. Troyan, [arXiv:hep-ph/0506309].
*Phys. Rev. D* **72**, *054001 (2005)*

98) "Heavy-flavor effects in soft gluon resummation for electroweak boson production at hadron colliders," S. Berge, P. M. Nadolsky and F. I. Olness, [arXiv:hep-ph/0509023.]
*Phys. Rev. D* **73**, *013002 (2006)*

99) "Higgs Production in Association with Heavy Quarks: Issues of QCD Evolution and Mass Thresholds in Variable Flavor Schemes," B. Field, F. Olness, J. Smith.
Contribution to the TeV4LHC Workshop.

100) "Heavy-flavor effects in supersymmetric Higgs boson production at hadron colliders," A. Belyaev, S. Berge, P. M. Nadolsky, F. Olness and C. P. Yuan. arXiv:hep-ph/0603049.
Proceedings of *TeV4 LHC Workshop*, Brookhaven, Upton, New York, 3-5 Feb 2005.

101) "Les Houches physics at TeV colliders 2005, standard model, QCD, EW, and Higgs working group: Summary report," C. Buttar *et al.*, arXiv:hep-ph/0604120.
Contributed to *4'rd Les Houches Workshop: Physics at TeV Colliders*, Les Houches, France, 2 May - 20 May 2005.

102) "Tevatron-for-LHC Report of the QCD Working Group." M. Albrow, *et. al.*, *Tevatron-for-LHC Conference Report of the QCD Working Group.*
arXiv:hep-ph/0610012

103) "Tevatron-for-LHC Report: Higgs." U. Aglietti, *et. al.*, *Tevatron-for-LHC Conference Report of the Higgs Working Group.*
arXiv:hep-ph/0612172

104) "The Impact of new neutrino DIS and Drell-Yan data on large-$x$ parton distributions." J.F. Owens, J. Huston, C.E. Keppel, S. Kuhlmann, J. Morfin, F. Olness, J. Pumplin, and D. Stump. [arXiv: hep-ph/0702159]
*Phys. Rev. D* **75**, *054030, (2007)*

105) "Tevatron-for-LHC Report: Top and Electroweak Physics." C.E. Gerber, *et. al.*, *Tevatron-for-LHC Conference Report of the Top and Electroweak Working Group.*
arXiv:0705.3251 [hep-ph].

106) "Nuclear Corrections and Parton Distribution Functions — Lessons Learned from Global Fitting." J.F. Owens, J. Huston, C.E. Keppel, S. Kuhlmann, J. Morfin, F. Olness, J. Pumplin, and D. Stump.
Contributed talk (presented by J.F. Owens) to the *Fifth International Workshop on. Neutrino-Nucleus Interactions in the Few-GeV Region.* May 30, 2007 — June 3, 2007. Fermilab, Batavia, Illinois USA.
AIP Conf. Proc. **967**, 259 (2007).

107) "A Review of Target Mass Corrections." Ingo Schienbein, Voica A. Radescu, G.P. Zeller, M. Eric Christy, C.E. Keppel, Kevin S. McFarland, W. Melnitchouk, Fredrick Olness, Mary Hall Reno, Fernando Steffens, & Ji-Young Yu. arXiv:0709.1775 [hep-ph].
J. Phys. G **35**, 053101 (2008).

108) "Nuclear PDFs from neutrino deep inelastic scattering." I. Schienbein, J. Y. Yu C. Keppel, J. G. Morfin, F. Olness, & J.F. Owens. arXiv:0710.4897 [hep-ph].
Phys. Rev. D **77**, 054013 (2008)

109) T. Adams *et al.* [NuSOnG Collaboration], "Expression of Interest for Neutrinos Scattering on Glass: NuSOnG," *Proposal for a new experimental: Submitted to the Fermilab Program Advisory Council (PAC).* arXiv:0907.4864 [hep-ex].

110) T. Adams *et al.* [NuSOnG Collaboration], "Terascale Physics Opportunities at a High Statistics, High Energy Neutrino Scattering Experiment: NuSOnG," arXiv:0803.0354 [hep-ph].
Int. J. Mod. Phys. A **24**, 671 (2009).

111) H. Jung *et al.*, "What HERA may provide ?" Contributed to 16th International Workshop on Deep Inelastic Scattering and Related Subjects (DIS 2008), London, England, 7-11 Apr 2008.
arXiv:0809.0549 [hep-ph].

112) I. Schienbein, J. Y. Yu, C. Keppel, J. G. Morfin, F. I. Olness and J. F. Owens, "Parton distribution function uncertainties & nuclear corrections for the LHC," arXiv:0806.0723 [hep-ph].
• Contributed to *43rd Rencontres de Moriond on QCD and Hadronic Interactions,* La Thuile, Italy, 8-15 March 2008.
• Contributed to *16th International Workshop on Deep Inelastic (DIS 2008),* London, England, 7-11 April 2008.

113) F. Olness and I. Schienbein, "Heavy Quarks: Lessons Learned from HERA and Tevatron," [arXiv:0812.3371 [hep-ph]].
Nucl. Phys. Proc. Suppl. **191**, 44 (2009)

114) I. Schienbein, J. Y. Yu, C. Keppel, J. G. Morfin, F. Olness and J. F. Owens, "Nuclear Parton Distribution Functions," [arXiv:0812.3370 [hep-ph]].
Nucl. Phys. Proc. Suppl. **191**, 25 (2009)

115) F. Olness and R. Scalise, "Regularization, Renormalization, and Dimensional Analysis: Dimensional Regularization meets Freshman E&M." *Based on lectures presented a the CTEQ Summer Schools on QCD Analysis and Phenomenology.*
arXiv:0812.3578 [hep-ph].
American Journal of Physics, **79(3)** p.306-212.

116) T. Adams *et al.* [NuSOnG Collaboration], "QCD Precision Measurements and Structure Function Extraction at a High Statistics, High Energy Neutrino Scattering Experiment: NuSOnG,"
arXiv:0906.3563 [hep-ex].
Int.J.Mod.Phys. A25:909-949,2010.

117) F. I. Olness and D. E. Soper, "Correlated theoretical uncertainties for the one-jet inclusive cross section,"
arXiv:0907.5052 [hep-ph].
Phys.Rev.D81:035018,2010.

118) I. Schienbein, J. Y. Yu, K. Kovarik, C. Keppel, J. G. Morfin, F. Olness and J. F. Owens, "PDF Nuclear Corrections for Charged and Neutral Current Processes," [arXiv:0907.2357 [hep-ph]].
Phys. Rev. D **80**, 094004 (2009).

119) J. R. Andersen *et al.* [SM and NLO Multileg Working Group], "The SM and NLO multileg working group: Summary report,"
arXiv:1003.1241 [hep-ph].

120) E. L. Berger, M. Guzzi, H. L. Lai, P. M. Nadolsky and F. I. Olness, "Constraints on color-octet fermions from a global parton distribution analysis," [arXiv:1010.4315 [hep-ph]].
Phys. Rev. D **82**, 114023 (2010)

121) A. N. Khorramian, S. A. Tehrani, S. T. Monfared, F. Arbabifar and F. I. Olness, "Polarized Deeply Inelastic Scattering (DIS) Structure Functions for Nucleons and Nuclei with Orthogonal Polynomials,"
arXiv:1011.4873 [hep-ph],
Phys. Rev. **D83** (2011) 054017.

122) K. Kovarik *et al.*, "Nuclear corrections in neutrino-nucleus DIS and their compatibility with global NPDF analyses," arXiv:1012.0286 [hep-ph],
Phys. Rev. Lett. **106**, 122301 (2011).

123) T. Stavreva, I. Schienbein, F. Arleo, K. Kovarik, F. Olness, J. Y. Yu and J. F. Owens, "Probing gluon and heavy-quark nuclear PDFs with photon + heavy quark production in pA collisions," arXiv:1012.1178 [hep-ph],
JHEP **1101**, 152 (2011).

124) M. Guzzi, P. Nadolsky, E. Berger, H. L. Lai, F. Olness and C. P. Yuan, "CT10 parton distributions and other developments in the global QCD analysis,"
arXiv:1101.0561 [hep-ph].

125) A. N. Khorramian, S. Atashbar Tehrani, F. Olness, S. Taheri Monfared and F. Arbabifar, "Nonsinglet spin-dependent structure functions,"
Nucl. Phys. Proc. Suppl. **207-208**, 65 (2010).

126) D. Boer, M. Diehl, R. Milner, R. Venugopalan, W. Vogelsang, D. Kaplan, H. Montgomery and S. Vigdor *et al.*, "Gluons and the quark sea at high energies: Distributions, polarization, tomography,"
arXiv:1108.1713 [nucl-th].

127) K. Kovarik, I. Schienbein, F. I. Olness, J. Y. Yu, C. Keppel, J. G. Morfin, J. F. Owens and T. Stavreva, "Nuclear corrections in nu A DIS and their compatibility with global NPDF analyses,"
AIP Conf. Proc. **1369**, 80 (2011).

128) K. Kovarik, I. Schienbein, F. I. Olness, J. Y. Yu, C. Keppel, J. G. Morfin, J. F. Owens and T. Stavreva, "Compatibility of global NPDF analyses of neutrino DIS and charged-lepton DIS data," arXiv:1111.1145 [hep-ph].
Few Body Systems, 10.1007/s00601-011-0297-7.

129) K. Kovarik, I. Schienbein, F. I. Olness, J. Y. Yu, C. Keppel, J. G. Morfin, J. F. Owens and T. Stavreva, "Compatibility of global NPDF analyses of neutrino DIS and charged-lepton DIS data," [arXiv:1111.1145 [hep-ph]].
PoS EPS **-HEP2011**, 289 (2011).

130) K. Kovarik, T. Stavreva, A. Kusina, T. Jezo, F. I. Olness, I. Schienbein and J. Y. Yu, "A Survey of Heavy Quark Theory for PDF Analyses," [arXiv:1201.1946 [hep-ph]].
Nucl. Phys. Proc. Suppl. **222-224**, 52 (2012)

131) O. Behnke, A. Dion and F. Olness, "DIS2011 Heavy Flavours Session Summary (WG5),"
arXiv:1201.6420 [hep-ph].

132) T. Stavreva, F. I. Olness, I. Schienbein, T. Jezo, A. Kusina, K. Kovarik and J. Y. Yu, "Heavy Quark Production in the ACOT Scheme at NNLO and N3LO," [arXiv:1203.0282 [hep-ph]].
Phys. Rev. D **85**, 114014 (2012)

133) A. Kusina, T. Stavreva, S. Berge, F. I. Olness, I. Schienbein, K. Kovarik, T. Jezo, J. Y. Yu, K. Park, "Strange Quark PDFs and Implications for Drell-Yan Boson Production at the LHC," [arXiv:1203.1290 [hep-ph]].
Phys. Rev. D **85**, 094028 (2012)

134) J. Alcaraz Maestre *et al.* [SM and NLO Multi-Leg and SM MC Working Groups Collaboration], "The SM and NLO Multileg and SM MC Working Groups: Summary Report,"
arXiv:1203.6803 [hep-ph].

135) K. Kovarik, I. Schienbein, T. Stavreva, F. I. Olness, J. Y. Yu, C. Keppel, J. G. Morfin and J. F. Owens, "Nuclear corrections in nu A DIS and their compatibility with global NPDF analyses,"
Few Body Syst. **52**, 271 (2012).

136) T. Stavreva, F. I. Olness, I. Schienbein, T. Jezo, A. Kusina, K. Kovarik and J. Y. Yu, "Heavy Quark Production in the ACOT Scheme Beyond NLO,"
arXiv:1206.2325 [hep-ph].

137) T. Stavreva, F. I. Olness, I. Schienbein, T. Jezo, A. Kusina, K. Kovarik and J. Y. Yu, "Heavy Quark Production in the ACOT Scheme beyond NLO," [arXiv:1206.2582 [hep-ph]].
Acta Phys. Polon. B **43**, 1607 (2012)

138) A. Kusina, T. Stavreva, S. Berge, F. I. Olness, I. Schienbein, K. Kovarik, T. Jezo and J. Y. Yu *et al.*, "Strange Quark PDF Uncertainty and its Implications for W/Z Production at the LHC,"
Acta Phys. Polon. Supp. **6**, 219 (2013)

139) A. Kusina, F. I. Olness, I. Schienbein, T. Jezo, K. Kovarik, T. Stavreva and J. Y. Yu, "A Hybrid Scheme for Heavy Flavors: Merging the FFNS and VFNS,"
Phys. Rev. D **88**, 074032 (2013)

140) K. Kovarik, T. Jezo, A. Kusina, F. I. Olness, I. Schienbein, T. Stavreva and J. Y. Yu, "CTEQ nuclear parton distribution functions," arXiv:1307.3454.
PoS DIS **2013**, 274 (2013)

141) S. Hoche, L. Reina, M. Wobisch, C. Bauer, Z. Bern, R. Boughezal, J. Campbell and N. D. Christensen *et al.*, "Computing for Perturbative QCD - A Snowmass White Paper,"
arXiv:1309.3598 [hep-ph].

142) A. Kusina, F. I. Olness, I. Schienbein, T. Jezo, K. Kovarik, T. Stavreva and J. Y. Yu, [arXiv:1310.7827 [hep-ph]].
PoS DIS **2013**, 298 (2013)

143) J. Anderson, R. Brock, Y. Gershtein, N. Hadley, M. Harrison, M. Narain, J. Nielsen and F. Olness *et al.*, "Benefits to the U.S. from Physicists Working at Accelerators Overseas,"
arXiv:1312.4884 [physics.soc-ph].

144) S. Alekhin, O. Behnke, P. Belov, S. Borroni, M. Botje, D. Britzger, S. Camarda and A. M. Cooper-Sarkar *et al.*, "HERAFitter, Open Source QCD Fit Project," doi:10.1140/epjc/s10052-015-3480-z [arXiv:1410.4412 [hep-ph]].
Eur. Phys. J. C **75**, no. 7, 304 (2015)

145) A. Kusina, K. Kovaik, T. Jeo, D. B. Clark, F. I. Olness, I. Schienbein and J. Y. Yu, "Update on nCTEQ PDFs: nuclear PDF uncertainties and LHC applications," [arXiv:1408.1114 [hep-ph]].
PoS DIS **2014**, 047 (2014)

146) S. Camarda *et al.* [HERAFitter developers' Team Collaboration], "QCD analysis of $W$- and $Z$-boson production at Tevatron," doi:10.1140/epjc/s10052-015-3655-7 [arXiv:1503.05221 [hep-ph]].
Eur. Phys. J. C **75**, no. 9, 458 (2015)

147) F. Lyonnet, A. Kusina, T. Jeo, K. Kovark, F. Olness, I. Schienbein and J. Y. Yu, "On the intrinsic bottom content of the nucleon and its impact on heavy new physics at the LHC," doi:10.1007/JHEP07(2015)141 [arXiv:1504.05156 [hep-ph]].
JHEP **1507**, 141 (2015)

148) F. Lyonnet, A. Kusina, K. Kovak, T. Jeo, F. Olness, I. Schienbein and J. Y. Yu, "On the intrinsic bottom content of the nucleon," arXiv:1507.08935 [hep-ph].
Proceedings of the XXIII International Workshop on Deep Inelastic Scattering and Related Subjects (DIS2015), April 27 - May 1, 2015, Southern Methodist University, Dallas, Texas 75275
PoS DIS2015 (2015) 174. DOI: 10.22323/1.247.0174

149) K. Kovarik *et al.*, "nCTEQ15 - Global analysis of nuclear parton distributions with uncertainties in the CTEQ framework," arXiv:1509.00792 [hep-ph].
Phys.Rev. **D93** (2016) no.8, 085037.

150) A. Kusina *et al.*, "nCTEQ15 - Global analysis of nuclear parton distributions with uncertainties," arXiv:1509.01801 [hep-ph].
Proceedings of the XXIII International Workshop on Deep Inelastic Scattering and Related Subjects (DIS2015), April 27 - May 1, 2015, Southern Methodist University, Dallas, Texas 75275
PoS DIS2015 (2015) 041. DOI: 10.22323/1.247.0041

151) F. I. Olness, "Precision QCD for LHC Physics: The nCTEQ15 PDFs," arXiv:1511.00372 [hep-ph].
Proceedings of the DPF 2015 Meeting of the American Physical Society Division of Particles and Fields, Ann Arbor, Michigan, August 4-8, 2015.
DPF2015-291.

152) B. I. Ermolaev, F. Olness and S. I. Troyan, "Resonance model for non-perturbative inputs to gluon distributions in the hadrons,"
arXiv:1512.07861 [hep-ph].

153) F. I. Olness, R. Kehoe and P. Nadolsky, "Report on the DIS2015 International Workshop,"
Proceedings of the DPF 2015 Meeting of the American Physical Society Division of Particles and Fields, Ann Arbor, Michigan, August 4-8, 2015.
PoS DIS **2015**, 018 (2016). DOI: 10.22323/1.247.0018

154) A. Kusina, F. Lyonnet, F. I. Olness and I. Schienbein, "Frontiers of QCD with Precision nPDFs," doi:10.1051/epjconf/201611203006 [arXiv:1601.07115 [hep-ph]]. DOI: 10.1051/epjconf/201611203006
EPJ Web Conf. **112**, 03006 (2016) DOI: 10.1051/epjconf/201611203006

155) J. Thomas, C. A. Bertulani, N. Brady, D. B. Clark, E. Godat and F. Olness, "Parton distribution functions probed in ultraperipheral collisions at the CERN Large Hadron Collider,"
arXiv:1603.01919 [hep-ph].

156) D. B. Clark, E. Godat and F. I. Olness, "ManeParse: a Mathematica reader for Parton Distribution Functions," arXiv:1605.08012 [hep-ph].
Comput.Phys.Commun. 216 (2017) 126-137.

157) D. B. Clark *et al.*, "Impact of Heavy Flavor PDFs at the LHC," Proceedings, 24th International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS 2016): Hamburg, Germany, April 11-15, 2016
PoS DIS **2016**, 141 (2016). DOI: 10.22323/1.265.0141

158) A. Kusina *et al.*, "Vector boson production in pPb and PbPb collisions at the LHC and its impact on nCTEQ15 PDFs," doi:10.1140/epjc/s10052-017-5036-x [arXiv:1610.02925 [nucl-th]].
Eur. Phys. J. C **77**, no. 7, 488 (2017).

159) F. Giuli *et al.* [xFitter Developers' Team], "The photon PDF from high-mass DrellYan data at the LHC," doi:10.1140/epjc/s10052-017-4931-5 [arXiv:1701.08553 [hep-ph]].
Eur. Phys. J. C **77**, no. 6, 400 (2017).

160) A. Kusina *et al.*, "LHC lead data and nuclear PDFs,"
doi:10.5506/APhysPolB.48.1035 [arXiv:1705.06704 [hep-ph]].
Acta Phys. Polon. B **48**, 1035 (2017).

161) V. Bertone *et al.* [The xFitter Developers Team], "Impact of the heavy quark matching scales in PDF fits," doi:10.1140/epjc/s10052-017-5407-3 [arXiv:1707.05343 [hep-ph]].
Eur. Phys. J. C **77**, no. 12, 837 (2017).

162) V. Bertone *et al.* [xFitter Developers' Team], "xFitter 2.0.0: An Open Source QCD Fit Framework," [arXiv:1709.01151 [hep-ph]].
PoS DIS **2017**, 203 (2018). DOI: 10.22323/1.297.0203

163) E. R. Nocera, H. W. Lin, F. Olness, K. Orginos and J. Rojo,
"The PDFLattice2017 workshop: a summary report," [arXiv:1709.01511 [hep-ph]].
PoS DIS **2017**, 211 (2018). DOI: 10.22323/1.297.0211

164) H. W. Lin *et al.*, "Parton distributions and lattice QCD calculations: a community white paper," arXiv:1711.07916 [hep-ph]. DOI: https://doi.org/10.1016/j.ppnp.2018.01.007
Progress in Particle and Nuclear Physics, Volume 100, May 2018, p.107-160.

165) D. B. Clark *et al.* [nCTEQ Collaboration], "LHC data and its impact on nCTEQ15 PDFs," [arXiv:1712.08199 [hep-ph]].
PoS DIS **2017**, 204 (2018). DOI: 10.22323/1.297.0204

166) H. Abdolmaleki *et al.* [xFitter Developers' Team], "Impact of low-$x$ resummation on QCD analysis of HERA data," arXiv:1802.00064 [hep-ph].
Eur. Phys. J. C**78** (2018) no.8, 621. DOI:10.1140/epjc/s10052-018-6090-8

167) B. T. Wang, T. J. Hobbs, S. Doyle, J. Gao, T. J. Hou, P. M. Nadolsky and F. I. Olness, "Visualizing the sensitivity of hadronic experiments to nucleon structure," arXiv:1803.02777 [hep-ph].
Phys.Rev. D98 (2018) no.9, 094030. DOI: 10.1103/PhysRevD.98.094030

168) M. Salimi-Amiri, A. Khorramian, H. Abdolmaleki and F. I. Olness, "Impact of recent COMPASS data on polarized parton distributions and structure functions," arXiv:1805.02613 [hep-ph].
Phys.Rev. D98 (2018) no.5, 056020. DOI: 10.1103/PhysRevD.98.056020

169) V. Bertone *et al.* [xFitter Developers' Team], "xFitter 2.0.0: Heavy quark matching scales: Unifying the FFNS and VFNS," arXiv:1808.08623 [hep-ph].
PoS DIS**2018**, (2018) 015. DOI: 10.22323/1.316.0015

170) E. Godat *et al.* [nCTEQ Collaboration], "PDF Flavor Determination and the nCTEQ PDFs: $W/Z$ vector boson production in heavy ion collisions," arXiv:1808.07514 [hep-ph].
PoS DIS**2018**, (2018) 009. DOI: 10.22323/1.316.0009

171) B. T. Wang, T. J. Hobbs, S. Doyle, J. Gao, T. J. Hou, P. M. Nadolsky and F. I. Olness, "PDFSense: Mapping the sensitivity of hadronic experiments to nucleon structure," arXiv:1808.07470 [hep-ph].
PoS DIS**2018**,(2018) 024. DOI: 10.22323/1.316.0024

172) A. Caldwell, R. Ent, A. Levy, P. Newman and F. Olness, "The 'DIS and Related Subjects' Strategy Document: Fundamental Science from Lepton-Hadron Scattering," arXiv:1812.08110 [hep-ph].
*DIS contribution to the European Particle Physics Strategy Update 2020 (EPPSU).*

173) A. Abada *et al.* [FCC Collaboration], "FCC Physics Opportunities : Future Circular Collider Conceptual Design Report Volume 1,"
Eur. Phys. J. C **79**, no. 6, 474 (2019). doi:10.1140/epjc/s10052-019-6904-3

174) A. Abada *et al.* [FCC Collaboration], "FCC-ee: The Lepton Collider : Future Circular Collider Conceptual Design Report Volume 2,"
Eur. Phys. J. ST **228**, no. 2, 261 (2019). doi:10.1140/epjst/e2019-900045-4

175) A. Abada *et al.* [FCC Collaboration], "FCC-hh: The Hadron Collider : Future Circular Collider Conceptual Design Report Volume 3,"
Eur. Phys. J. ST **228**, no. 4, 755 (2019). doi:10.1140/epjst/e2019-900087-0

176) A. Abada *et al.* [FCC Collaboration], "HE-LHC: The High-Energy Large Hadron Collider : Future Circular Collider Conceptual Design Report Volume 4,"
Eur. Phys. J. ST **228**, no. 5, 1109 (2019). doi:10.1140/epjst/e2019-900088-6

177) Z. Citron *et al.* [FCC Collaboration], "Future physics opportunities for high-density QCD at the LHC with heavy-ion and proton beams," arXiv:1812.06772 [hep-ph]. *Report from Working Group 5 of the Workshop on the Physics of the CERN HL-LHC, and Perspectives at the HE-LHC.*
DOI:10.23731/CYRM-2019-007.1159 (2019)

178) T. J. Hobbs, B. T. Wang, P. M. Nadolsky and F. I. Olness, "Charting the coming synergy between lattice QCD and high-energy phenomenology,"
Phys. Rev. D **100**, no. 9, 094040 (2019) doi:10.1103/PhysRevD.100.094040

179) T. J. Hobbs, B. T. Wang, P. M. Nadolsky and F. I. Olness, "Collinear PDFs in the era of HL-LHC, LHeC, and EIC,"
PoS DIS **2019**, 247 (2019) doi:10.22323/1.352.0247

180) **xFitter Collaboration:** H. Abdolmaleki *et al.* [xFitter Developers' Team], "Probing the strange content of the proton with charm production in charged current at LHeC,"
Eur. Phys. J. C **79**, no. 10, 864 (2019) doi:10.1140/epjc/s10052-019-7362-7

181) E. Accomando *et al.*, "PDF Profiling Using the Forward-Backward Asymmetry in Neutral Current Drell-Yan Production,"
JHEP **1910**, 176 (2019) doi:10.1007/JHEP10(2019)176

182) **xFitter Collaboration:** H. Abdolmaleki *et al.*, "Forward-Backward Drell-Yan Asymmetry and PDF Determination,"
arXiv:1907.08301 [hep-ph]. Contributed at 54th Rencontres de Moriond, La Thuile. (2019)

183) **xFitter Collaboration:** H. Abdolmaleki *et al.* [xFitter Developers Team], "Recent QCD results from the xFitter project - Probing the strange content of the proton with charmproduction in charged current at LHeC,"
PoS DIS **2019**, 025 (2019) doi:10.22323/1.352.0025

184) D. B. Clark *et al.* [nCTEQ Collaboration], "nCTEQ PDFs at the LHC: Vector Boson Production in Heavy Ion Collisions,"
PoS DIS **2019**, 024 (2019) doi:10.22323/1.352.0024

185) O. Zenaiev *et al.* [PROSA Collaboration], "Improved constraints on parton distributions using LHCb, ALICE and HERA heavy-flavour measurements and implications for the predictions for prompt atmospheric-neutrino fluxes," arXiv:1911.13164 [hep-ph].
JHEP **04** (2020) 118.

186) T. J. Hobbs, Pavel M. Nadolsky, Fredrick I. Olness, Bo-Ting Wang. "Probing Nuclear Structure with Future Colliders."
Published by World Scientific in the proceedings of INT Workshop: "Probing Nucleons and Nuclei in High Energy Collisions." (2020)

187) C. A. Argelles *et al.*, "White Paper on New Opportunities at the Next-Generation Neutrino Experiments (Part 1: BSM Neutrino Physics and Dark Matter)," arXiv:1907.08311 [hep-ph].
Rept. Prog. Phys. 83 (2020) 12, 124201.

188) **xFitter Collaboration:** Ivan Novikov, et al., "Parton Distribution Functions of the Charged Pion Within The xFitter Framework." e-Print: 2002.02902 [hep-ph]
Phys.Rev.D **102** (2020) 1, 014040.

189) **PDFLattice Collaboration:** M. Constantinou, et al., "Parton distributions and lattice QCD calculations: toward 3D structure," [arXiv:2006.08636 [hep-ph]].
Prog.Part.Nucl.Phys. 121 (2021) 103908.

190) M. Arratia, Y. Furletova, T. J. Hobbs, F. Olness and S. J. Sekula, "Charm jets as a probe for strangeness at the future Electron-Ion Collider," [arXiv:2006.12520 [hep-ph]].
Phys.Rev.D 103 (2021) 7, 074023.

191) **nCTEQ Collaboration:** A. Kusina, T. Jeo, D. B. Clark, P. Duwentster, E. Godat, T. J. Hobbs, J. Kent, M. Klasen, K. Kovak, F. Lyonnet, K. F. Muzakka, F. I. Olness, I. Schienbein and J. Y. Yu, "Impact of LHC vector boson production in heavy ion collisions on strange PDFs," [arXiv:2007.09100 [hep-ph]].
Eur. Phys. J. C 80 (2020) 10, 968.

192) P. Agostini *et al.* [LHeC and FCC-he Study Group], "The Large Hadron-Electron Collider at the HL-LHC," [arXiv:2007.14491 [hep-ex]].
J.Phys.G 48 (2021) 11, 110501.

193) **nCTEQ Collaboration:** E. P. Segarra, T. Ježo, A. Accardi, P. Duwentäster, O. Hen, T. J. Hobbs, C. Keppel, M. Klasen, K. Kovařík, A. Kusina, J.G. Morfín, K.F. Muzakka, F.I. Olness, I. Schienbein, J.Y. Yu. *et al.* "nCTEQ15HIX – Extending nPDF Analyses into the High-$x$, Low $Q^2$ Region," arXiv:2012.11566 [hep-ph].
Phys.Rev.D 103 (2021) 11, 114015.

194) R. Abdul Khalek, *et al.* "Science Requirements and Detector Concepts for the Electron-Ion Collider: EIC Yellow Report,"
[arXiv:2103.05419 [physics.ins-det]]. (2021).

195) **nCTEQ Collaboration:** P. Duwentäster, L. A. Husová, T. Ježo, M. Klasen, K. Kovařík, A. Kusina, K. F. Muzakka, F. I. Olness, I. Schienbein and J. Y. Yu, "Impact of inclusive hadron production data on nuclear gluon PDFs," doi:10.1103/PhysRevD.104.094005 [arXiv:2105.09873 [hep-ph]].
Phys. Rev. D **104**, 094005 (2021)

196) **xFitter Collaboration:** H. Abdolmaleki *et al.* [xfitter Developers' Team], "QCD analysis of pion fragmentation functions in the xFitter framework,"
doi:10.1103/PhysRevD.104.056019 [arXiv:2105.11306 [hep-ph]].
Phys. Rev. D **104**, no.5, 056019 (2021)

197) **nCTEQ Collaboration:** K. F. Muzakka, P. Duwentäster, T. J. Hobbs, T. Ježo, M. Klasen, K. Kovařík, A. Kusina, J. G. Morfín, F. I. Olness and R. Ruiz, *et al.* "Impact of W and Z Production Data and Compatibility of Neutrino DIS Data in Nuclear Parton Distribution Functions,"
[arXiv:2107.13235 [hep-ph]]. doi = "10.21468/SciPostPhysProc.8.041",
SciPost Phys. Proc. Vol.8, p.041. (2022).

198) **nCTEQ Collaboration:** P. Duwentäster, L. A. Husová, T. Ježo, M. Klasen, K. Kovařík, A. Kusina, K. F. Muzakka, F. I. Olness, I. Schienbein and J. Y. Yu, "Constraining the nuclear gluon PDF with inclusive hadron production data,"
[arXiv:2107.14514 [hep-ph]]. doi = "10.21468/SciPostPhysProc.8.045",
SciPost Phys. Proc. Vol.8, p.045. (2022).

199) J. Feng, et al., "The Forward Physics Facility at the High-Luminosity LHC,"
doi:10.1088/1361-6471/ac865e [arXiv:2203.05090 [hep-ex]].
J. Phys. G **50**, no.3, 030501 (2023)

200) R. Abdul Khalek, et al., "Snowmass 2021 White Paper: Electron Ion Collider for High Energy Physics", [arXiv:2203.13199, [hep-ph]], (2022).

201) S.Amoroso, et al., "Snowmass 2021 whitepaper: Proton structure at the precision frontier," [arXiv:2203.13923, hep-ph]], (2022). doi:10.5506/APhysPolB.53.12-A1
Acta Phys. Polon. B **53**, no.12, 12-A1 (2022)

202) **nCTEQ Collaboration:** P. Duwentäster, P. et al., "Impact of heavy quark and quarkonium data on nuclear gluon PDFs," [arXiv:2204.09982, [hep-ph]], doi = "10.1103/PhysRevD.105.114043",
Phys.Rev.D 105 (2022) 11, 114043.

203) **nCTEQ Collaboration:** K.F. Muzakka, et al., "Compatibility of neutrino DIS data and its impact on nuclear parton distribution functions," arXiv:2204.13157, [hep-ph]], doi = "10.1103/PhysRevD.106.074004", Phys.Rev.D 106 (2022) 7, 074004.

204) **xFitter Collaboration:** H. Abdolmaleki, et al., "xFitter: An Open Source QCD Analysis Framework. A resource and reference document for the Snowmass study," Submitted to Snowmass 2021. [arXiv:2206.12465, [hep-ph]], (2022).

205) Snowmass'21 working groups EF5, EF6, EF7: M. Begel, et al., "Precision QCD, Hadronic Structure & Forward QCD, Heavy Ions." Report of Energy Frontier Topical Groups 5, 6, 7 submitted to Snowmass 2021, [arXiv:2209.14872, [hep-ph]], (2022).

206) **nCTEQ Collaboration:** M. Klasen, et al., "Global analyses of nuclear PDFs with heavy-quark and neutrino data," [arXiv:2210.10284, [hep-ph]], doi = "10.22323/1.414.0443", ICHEP2022, Proceedings of Science: p.443 (2022).

207) N. Derakhshanian, et al., "Nuclear PDF Determination Using Markov Chain Monte Carlo Methods," doi:10.5506/APhysPolBSupp.16.7-A33
Acta Phys. Polon. Supp. **16**, no.7, 7-A33 (2023)

208) **nCTEQ Collaboration:** R. Ruiz, et al., "Target mass corrections in lepton-nucleus DIS: theory and applications to nuclear PDFs," [arXiv:2301.07715 [hep-ph]].
Progress in Particle and Nuclear Physics. doi.org/10.1016/j.ppnp.2023.104096

209) P. Achenbach, et al., "The Present and Future of QCD," [arXiv:2303.02579 [hep-ph]].

210) R. Abir, et al., "The case for an EIC Theory Alliance: Theoretical Challenges of the EIC," [arXiv:2305.14572 [hep-ph]].

211) A. Accardi, et al., "Strong Interaction Physics at the Luminosity Frontier with 22 GeV Electrons at Jefferson Lab," [arXiv:2306.09360 [nucl-ex]].

212) P. Risse, et al., "Towards a New nCTEQ global nPDF release," [arXiv:2307.07814 [hep-ph]].

213) P. Risse, et al., "Fast evaluation of heavy-quark contributions to DIS in APFEL++," [arXiv:2307.08269 [hep-ph]].

214) **Fantomas Collaboration:** A. Courtoy, et al., "Fantômas For QCD: parton distributions in a pion with Bézier parametrizations," [arXiv:2309.00152 [hep-ph]].

215) **xFitter Collaboration:** A. Anataichuk, et al., "Exploring SMEFT Couplings Using the Forward-Backward Asymmetry in Neutral Current Drell-Yan Production at the LHC," [arXiv:2310.19638 [hep-ph]].

216) **Fantomas Collaboration:** L. Kotz, et al., "An analysis of parton distributions in a pion with Bézier parametrizations," [arXiv:2311.08447 [hep-ph]].

217) **nCTEQ Collaboration:** A. W. Denniston *et al.* [nCTEQ], "Evidence for Modified Quark-Gluon Distributions in Nuclei by Correlated Nucleon Pairs," [arXiv:2312.16293 [hep-ph]].

## Conference & Summer School Presentation & Organization:†

*Arranged in reverse chronological order.*

- CTEQ Summer School & Workshop on QCD and Electroweak Phenomenology:
  *Chair,* CTEQ Organizing committee (2012–Present),
  - 2024: 21-31 August, Muenster University, Germany
  - 2023: 5-19 June, Stony Brook University, Stony Brook, NY, USA
    *Joint with Center for Frontiers in Nuclear Science (CFNS) - Stony Brook University*
  - 2022: 6-16 July, University of Pittsburgh, PA, USA
  - 2021:* 5-15 September, Dresden, Germany *(Virtual)*
  - 2020:* August, Karlsruhe Institute of Technology, Karlsruhe, Germany *(Cancelled: Covid-19)*
  - 2019: July 16-26, University of Pittsburgh, Pittsburgh, PA.
  - 2018: June 18-28, University of Puerto Rico, Mayaguez.
    *Presenting xFitter Tutorial session*
  - 2017: July 18-28, University of Pittsburgh, Pittsburgh, PA.
    *Presented 4 introductory lectures*
  - 2016:* July 6-16, Joint DESY–MCnet–CTEQ School, Hamburg, Germany
  - 2015: July 7-18, University of Pittsburgh, Pittsburgh, PA.
  - 2014: July 8-18, Peking University, Beijing, China
  - 2013: July 7-17, University of Pittsburgh, Pittsburgh, PA.
  - 2012: July 30– August 9, Pontifical Catholic University of Peru, Lima, Peru
    *Presented DIS lectures*
  - 2011: July 10-20, University of Wisconsin, Madison, WI.
    *Presented Heavy Quark lectures*
  - 2010:* July 26–August 4, Joint MCnet–CTEQ School; Lauterbad (Black Forest), Germany
    *Presented 4 introductory lectures*
  - 2008:* August 8-16, Joint MCnet–CTEQ School;Debrecen, Hungary

  *Joint with MCnet Collaboration.

† Published presentations are listed in the publications list.

- International Workshop on Deep-Inelastic Scattering (DIS):
  International Advisory Committee (IAC) 2012 - Present.
  2024 DIS: Grenoble, France, 8-12 April 2024. *(Local Organizing Committee)*
  2023 DIS: MSU, East Lansing, MI, 26-31 March 2023.
  2022 DIS: Santiago de Compostela, Spain. May 2-6, 2022.
  2021 DIS: Virtual Meeting: Stony Brook University , NY, USA
  2020 DIS: Stony Brook University , NY, USA *(Cancelled: Covid-19)*
  2019 DIS: University of Torino, Italy
  2018 DIS: Kobe University, Japan
  2017 DIS: University of Birmingham, UK
  2016 DIS: DESY, Hamburg, Germany
  2015 DIS: SMU, Dallas, TX *(Lead Organizer)*
  2014 DIS: Warsaw, Poland
  2013 DIS: Marseille, France
  2012 DIS: Bonn, Germany

- MuIC 2023: Organizer:
  The 1st Workshop on the Muon-Ion Collider.
  Workshop Organizer & Discussion Leader
  13-15 December 2023, Rice University. https://muic2023.rice.edu/

- 2023 CTEQ Fall Meeting:
  8-11 November 2023. Michigan State University, Michigan, USA.
  "CFNS-CTEQ 2023 Summer School Report."

- 2023 Workshop Flash Talk:
  2023 Texas TACOS (Theoretical Astroparticle and Cosmology Symposium),
  Rice University, 9-10 October 2023.

- 2023 Precision QCD: CFNS Workshop:
  Precision QCD predictions for ep Physics at the EIC II. 18-22 September 2023.
  Center for Frontiers in Nuclear Science (CFNS). Stony Brook University, Stony Brook, NY, USA.
  "Revealing the fundamental character of the strong force: From PDFs to the underlying QCD."

- 2023 SURGE Collaboration Meeting:
  SURGE - Saturated Glue Topical Collaboration. 28-30 June 2023.
  "Global Analysis Working Group Report."

- 2023 JLab Symposium:
  Nucleon and nuclei structure from inclusive measurements
  "nCTEQ projects and updates."
  Jefferson Lab, Newport News, VA. 20-21 June 2023.

- 2023 xFitter External Meeting:
  "xFitter usage in the SURGE and HEFTY collaborations."
  2-5 May 2023, CERN, Geneva, Switzerland.

- 10th workshop of the APS Topical Group on Hadronic Physics:
  "Compatibility of Neutrino DIS Data and Its Impact on Nuclear Parton Distribution Functions."
  Minneapolis, Minnesota. Apr 12 - 14, 2023.

- CFNS MuIC Workshop:
  Using muons from backscattered photons on targets for various studies at the EIC.
  "MuIC Phenomenology & Exploring QCD in extreme kinematic regions."
  Center for Frontiers in Nuclear Science (CFNS), Stony Brook University.
  Stony Brook, NY, USA. 5 April 2023.

- 2023 SURGE Kick-Off Meeting:
  SURGE - Saturated Glue Topical Collaboration. 27 January 2023. Online.
  "Framework and global analysis: report."

- 2022 CTEQ Fall Meeting:
  14-15 November 2022. Fermilab, Batavia, IL, USA.
  Summer School Report.

- 2022 Fantomas4QCD Workshop:
  Fantomas4QCD Workshop, 31 October – 4 November 2022.
  Illinois Institute of Technology, Chicago, IL, USA.

- 2022 Workshop LOC:
  Local Organizing Committee: 2022 Texas TACOS
  (Theoretical Astroparticle and Cosmology Symposium),
  SMU Campus. 10-11 October 2022.

- 2022 Workshop LOC:
  Local Organizing Committee: SMU 2022 Fast Machine Learning for Science Workshop,
  SMU Campus, 3-6 October 2022.

- 2022 MIT Workshop:
  Theory for EIC in the next decade.
  Massachusetts Institute of Technology Cambridge, MA, USA. 20-22 September 2022.
  "A Wish List: Nuclear PDFs at the EIC; From PDFs to the underlying QCD characteristics."

- 2022 CFNS Workshop:
  Precision QCD predictions for ep Physics at the EIC.
  "Progress in Precision Nuclear PDFs; From PDFs to the underlying QCD characteristics."
  Center for Frontiers in Nuclear Science (CFNS), Stony Brook University.
  Stony Brook, NY, USA. 1-5 August 2022.

- 2022 JLab Workshop:
  High Energy Workshop Series 2022: Science at Mid x: Anti-shadowing and the Role of the Sea.
  "Anti-Shadowing and Nuclear PDF Challenges: opportunities from a upgraded facility."
  Jefferson Lab, Newport News, VA, USA. 22-23 July 2022.

- 2022 AAPM:

SMU Local Organizing Committee Liason. Hosted the American Association of Physicists in Medicine (AAPM) on the SMU campus. 7-12 June 2022.

- 2022 TAMU Mitchell Conference:
  Collider, Dark Matter, and Neutrino Physics 2022, 24-27 May 2022, Mitchell Institute, Texas A&M University, College Station, TX.
  "Revealing the fundamental character of the strong force."

- 2022 IMP Spring Meeting:
  Institute for Research in Fundamental Sciences (IMP) 2022 Spring meeting. Tehran, Iran. 10-12 May 2022.
  "Projects and Progress with xFitter."

- 2022 xFitter Workshop:
  xFitter workshop, IJC-Lab, Orsay, Paris, France. 9-11 March 2022.
  " A resource and reference document for the Snowmass study."

- 2022 Snowmass EF06 PDF Meeting:
  *EF06: QCD and strong interactions: Hadronic structure and forward QCD*, Online. 26 January 2022.
  "Nuclear PDFs."

- 2021 RIKEN BNL Workshop:
  *Small-x Physics in the EIC Era.* 15 December 2021.
  "Global analyses within the small-x resummation collinear approach."

- 2021 CFNS Workshop Organizer:
  *Physics Opportunities with Heavy Quarkonia at the EIC."* Workshop Organizing Committee
  Center for Frontiers in Nuclear Science (CFNS), Stony Brook University. 25–27 October 2021.

- 2021 APS DNP Workshop:
  *2021 Fall Meeting of the APS Division of Nuclear Physics.* 12 October 2021.
  "Progress in Precision Nuclear PDFs."

- 2021 APS GHP Workshop:
  *9th Workshop of the APS Topical Group on Hadronic Physics.* 15 April 2021.
  "Progress in Nuclear PDFs."

- 2021 Snowmass Study:
  *EIC opportunities for Snowmass.* 25-29 January 2021.
  "Improved constraints on nPDFs with nCTEQ."

- 2021 Snowmass Study:
  *EIC opportunities for Snowmass.* 25-29 January 2021.
  "Charm as a probe for strangeness at the EIC."

- 2020 CERN Workshop:
  *Perceiving the Emergence of Hadron Mass through AMBER@CERN.* 30 November to 4 December 2020.
  "xFitter: From nucleon to meson PDF fits." On behalf of the xFitter collaboration.

- 2020 Snowmass Study:

*Joint EF05/EF06 Topical Group:* 11 November 2020. "Future of nuclear PDFs: nCTEQ perspective."

- 2020 CFNS Workshop Organizer:
  *Opportunities with Heavy Flavor at the EIC.* Workshop Organizing Committee
  Center for Frontiers in Nuclear Science (CFNS), Stony Brook University. November 4-6, 2020.

- 2020 Snowmass Study:
  *EF05 Topical Group:* 12 October 2020. "PDFs, $\alpha_S$ and Low-x Physics and at Future DIS Facilities: LHeC/FCC-eh." on behalf of the LHeC and FCC-eh study groups.

- 2020 EIC Yellow Report Workshop:
  *Inclusive Reactions Group* 04 August 2020.
  "Update: Tools for PDF and Structure Functions ... LHAPDF Grids, Mathematica Notebooks ..."
  A joint presentation by Fred Olness, Lucas Kotz, Brandon Stevenson.

- 2020 Invited Keynote:
  Invited Keynote Lecture: Jefferson Lab, *Experimental Hall A & C Summer Meeting.* 16 July 2020.
  "Nuclear PDFs & Lepton–Nucleon Scattering."

- 2020 Snowmass Study:
  *EF05 Topical Group:* 7–8 July 2020. "Precision QCD at future DIS facilities with focus on PDFs at LHeC, FCC-he, ..." Presented on behalf of the LHeC Study Group.

- 2020 EIC Yellow Report Workshop:
  *Inclusive Reactions Group* 23 June 2020.
  "Tools for PDF and Structure Functions .. ManeParse, Python Jupyter, ..."

- 2020 CFNS Workshop:
  *Workshop on Pion and Kaon Structure Functions at the EIC xFitter.*
  2–5 June 2020. "From nucleon to meson PDF fits ... a cooperative presentation & discussion"
  with Aurore Courtoy, Tim Hobbs, Pavel Nadolsky, Fred Olness

- 2020 Snowmass Study:
  *EF06 Topical Group:*
  20 May 2020. "nCTEQ: Proton and Nuclear PDFs."

- 2020 EIC Yellow Report Workshop:
  *Jets and Heavy Flavor Physics Group.*
  20 April 2020. "nCTEQ Wish List: Preparing for the EIC."

- 2020 nCTEQ Workshop:
  Jefferson National Laboratory (JLab), Newport News, VA. 30 March-3 April 2020. *(Cancelled: Covid-19)*

- DIS2020:
  *28th International Workshop on Deep Inelastic Scattering and Related Topics.*
  Brooklyn, New York, hosted by Stony Brook University/ 23-27 March 2020. *(Cancelled: Covid-19)*

- 2020 EIC Workshop:
  *1st EIC Yellow Report Workshop at Temple University.*

Temple University, Philadelphia, PA. 19-21 March 2020.
"nCTEQ Wish List: ... how do we make sure the EIC can cover all we want/need."

- 2020 Heavy Flavor Workshop:
  *2020 Santa Fe Jets and Heavy Flavor Workshop,* Hosted by Los Alamos National Laboratory. February 3-5, 2020 Santa Fe, NM. "Improved constraints on PDFs from heavy flavor measurement production."

- 2019 LPC Workshop:
  Fermilab, Batavia, IL. 13-15 November 2019.
  *LPC Workshop on Physics Connections between the LHC and EIC.*
  "PDFs Flavor Determination & Nuclear PDFs: Challenges and Opportunities for QCD."

- EINN2019:
  13th European Research Conference on Electromagnetic Interactions with Nucleons and Nuclei
  27 October 02 November 2019, Paphos, Cyprus.
  *Invited Plenary Presentation:* "Overview of PDFs in the LHC era: What are the challenges & opportunities."

- 2019 LHeC/FCCeh and PERLE workshop:
  Chavannes de Bogis & CERN, Geneva, Switzerland. 24-25 October 2019.
  PDF Sub-Group Co-Convener

- 2019 CTEQ Workshop:
  Michigan State University, Kellogg Biological Station, 27-28 September 2019.
  "nCTEQ and PDFs at LHC Challenges and Opportunities for QCD"

- PDFLattice2019: PDF & Lattice Workshop:
  *Organizing committee,* Parton Distributions & Lattice QCD Workshop,
  Michigan State University, Kellogg Biological Station, 25-27 September 2019.

- POETIC 2019:
  Lawrence Berkeley Laboratory, Berkeley, CA. 16-21 September 2019.
  "Precision QCD at the LHeC and the FCC-eh What are the challenges & opportunities."

- EICUGM19: Electron - Ion Collider User Group Meeting 2019,
  Ecole Nationale Supérieure de Chimie, 22-26 July 2019.
  "nCTEQ PDF Update What are the challenges & opportunities with an EIC."

- IS2019:
  Initial Stages 2019 (IS2019): Physics of the initial stages of high energy nuclear collisions: Hosted at Columbia University, New York City June 2428, 2019
  *Poster:* "Precision QCD with the LHeC and the FCC-eh."

- Pheno2019:
  Phenomenology 2019 Symposium, 13-15 May 2019, University of Pittsburgh, Pittsburgh, PA.
  "nCTEQ and PDFs at the LHC Challenges & Opportunities for QCD."

- DIS2019 Workshop:
  XXVII International Workshop on Deep Inelastic Scattering and Related Subjects,

Torino, Italy 8-12 April 2019.
"nCTEQ PDFs and the strange PDF at LHC."

- DIS2019 Workshop:
  XXVII International Workshop on Deep Inelastic Scattering and Related Subjects,
  Torino, Italy 8-12 April 2019.
  "Recent QCD results from the xFitter project."

- 2019 xFitter Workshop:
  xFitter workshop in Minsk, Belarus. 18-20 March 2019.
  "Charm Charged Current Prodution."

- LANL Program Review Committee: *LDRD Progress Appraisal 20170073DR*, Los Alamos National Lab, Los Alamos, NM.
  14-15 February 2019.

- JETSCAPE 2019:
  JETSCAPE Winter School and Workshop,
  Texas A&M University, January 9-13, 2019.
  *Invited Plenary Presentation:* "Nuclear Correction and the nCTEQ PDFs: Progress, Puzzles, and Challenges."

- 2018 CTEQ-JLab Mini-Workshop:
  Parton distributions as a bridge from low to high energies.
  8-10 November 2018, JLab, Newport News, VA.
  "The nPDF 'To Do' List ... Parton Distributions as a Bridge from Low to High Energies."

- Institute for Nuclear Theory Workshop:
  Probing Nucleons and Nuclei in High Energy Collisions INT Workshop INT-18-3 October 22-26, 2018.
  *Invited Presentation:* "The nCTEQ PDFs: Improved PDF precision with eA measurements."

- Institute for Nuclear Theory Workshop:
  Probing Nucleons and Nuclei in High Energy Collisions INT Workshop INT-18-3 October 22-26, 2018.
  *Workshop Discussion Leader:* Topics: Shadowing and anti-shadowing: what can we learn at the EIC? Connection between cold and hot nuclear matter E-loss? Jets vs. charged hadron studies, pros and cons?

- EICUGM18:
  Electron - Ion Collider User Group Meeting 2018,
  Catholic University of America, Washington DC, 30 July - 3 August, 2018.
  *Invited Plenary Presentation:* "CTEQ and PDFs in the EIC era."

- EICUGM18:
  Electron - Ion Collider User Group Meeting 2018,
  Catholic University of America, Washington DC, 30 July - 3 August, 2018.
  *Invited Parallel Presentation:* "Report on nCTEQ nuclear PDFs."

- 2018 LHeC/FCCeh and PERLE workshop:
  LAL/IPN Orsay, France. 27-29 June 2018.

PDF Sub-Group Co-Convener

- 2018 Mitchell Conference:
  2018 Mitchell Conference on Collider, Dark Matter, and Neutrino Physics.
  The Mitchell Institute, Texas A&M University, College Station, TX. 21-23 May 2018.
  *Invited Plenary Presentation:* "Precision QCD as a window for future discoveries."

- DIS2018 Workshop:
  XXVI International Workshop on Deep Inelastic Scattering and Related Subjects,
  Kobe, Japan, 16-20 April 2018.
  "PDF Flavor Determination and the nCTEQ15 PDFs."

- DIS2018 Workshop:
  XXVI International Workshop on Deep Inelastic Scattering and Related Subjects,
  Kobe, Japan, 16-20 April 2018.
  "Recent QCD results from the xFitter project."

- DIS2018 Workshop:
  XXVI International Workshop on Deep Inelastic Scattering and Related Subjects,
  Kobe, Japan, 16-20 April 2018.
  "Visualizing sensitivity of hadronic experiments to the nucleon structure."

- 2018 xFitter Workshop:
  xFitter Meeting in Krakow, Poland. Krakow University of Technology. 4–7 March 2018.
  "xFitter Beyond LHC."

- 2018 Heavy Flavor Workshop:
  2018 Santa Fe Jets and Heavy Flavor Workshop, Hosted by Los Alamos National Laboratory. January 29-31, 2018 Santa Fe, NM.
  "PDF flavor determination and the nCTEQ15 PDFs."

- 2017 CTEQ Mini-Workshop:
  Fermilab, Batavia, IL. 19-20 October 2017.
  "The LHeC and FCC-eh Colliders Workshop at CERN: and other thoughts & ideas."

- Institute for Nuclear Theory Workshop:
  The Flavor Structure of Nucleon Sea. INT Workshop INT-17-68W October 2-13, 2017.
  *Invited Presentation:* "PDF Flavor Determination."

- 2017 LHeC and FCC-eh Workshop:
  CERN, Geneva, Switzerland, 11-13 September 2017.
  "PDF Flavor Determination: Updates from nCTEQ and xFitter."

- 2017 Division of Particles and Fields (DPF):
  Fermilab, Batavia, IL. July 31 – August 4, 2017.
  "PDF Flavor Determination with LHC W/Z production."

- LHC and the Standard Model: Physics and Tools:
  CERN, Geneva, Switzerland, 12 June 2017 to 7 July 2017.

"PDF Flavor Determination with LHC W/Z production."

- ATLAS Collaboration: ATLAS Standard Model Group
  Mini-workshop on QCD Scale Choices. CERN, Geneva, Switzerland, 4 May 2017.
  *Invited Vidyo Presentation:* "Theoretical Jet Uncertainties"

- DIS2017: 25th International Workshop on Deep Inelastic Scattering and Related Topics. University of Birmingham, 3-7 April 2017.
  "xFitter Project: an Open Source QCD Fit framework."

- DIS2017: 25th International Workshop on Deep Inelastic Scattering and Related Topics. University of Birmingham, 3-7 April 2017.
  "LHC and its impact on nCTEQ15 PDFs: updates from the nCTEQ collaboration."

- PDFLattice2017: PDF & Lattice Workshop:
  *Organizing committee,* Parton Distributions & Lattice QCD Workshop,
  Balliol College, Oxford, UK. 22 - 24 March 2017.

- 2017 xFitter Workshop:
  xFitter Meeting in Oxford, UK. St Hilda's College, Oxford, UK 19 - 22 March 2017.
  *Invited Presentation:* "PDF Flavor Determination."

- Institute for Nuclear Theory Workshop:
  Probing QCD in Photon-Nucleus Interactions at RHIC and LHC: the Path to EIC (INT-17-65W) February 13 - 17, 2017.
  *Invited Presentation:* "nCTEQ PDFs and heavy quarks"

- Joint CTEQ Meeting and POETIC 7:
  (7th International Conference on Physics Opportunities at an ElecTron-Ion-Collider)
  *Member,* Organizing committee, Temple University, November 14-18, 2016
  *Invited Presentation:* "The xFitter Project: an open source QCD fit framework."

- UKC016:
  US-Korea Conference (UKC) Invited lecture:
  *If the Higgs Boson is the answer ..., Theory Update.* Arlington, TX 12 August 2016.

- KITP Workshop: LHC Run II and the Precision Frontier
  Kavli Institute for Theoretical Physics, UC Santa Barbara. March 21 - April 8, 2016.

- PDF4LHC 2016: *Parton Distribution Function Uncertainties and Nuclear Corrections for the LHC, PDF4LHC Workshop,* 14 March 2016, CERN, Geneva Switzerland.

- 2016 x-Fitter Workshop:
  Working group meeting, 18-20 February 2016, Dubna, Moscow, Russia.
  *Invited presentation:* "nCTEQ15 Nuclear PDFs"
  *Invited presentation:* "Heavy Flavors"

- 2016 Heavy Flavor Workshop:
  Invited presentation on: *Precision QCD: Working with heavy quarks at High Scales & High Orders.*

*Santa Fe Jets and Heavy Flavor Workshop*, 11-13 January 2016.

- CTEQ: CTEQ Collaboration Meeting
  Collaboration presentation.
  Fermilab, Batavia, IL. November 5-7, 2015.

- 2015 TXAPS: Texas APS 2015 Fall Meeting.
  Invited judge for student presentation awards.
  Baylor University, Waco, Texas. October 29-31, 2015

- INT Workshop: Institute for Nuclear Theory (INT) Workshop
  Invited presentation on: *Working with heavy quarks at High Scales & High Orders.*
  *Intersections of BSM Phenomenology and QCD for New Physics Searches Precision QCD for New Physics Searches.* INT, University of Washington, Seattle. September 14 - October 23, 2015.

- POETIC6: The 6th edition of the International Conference on the "Physics Opportunities at an ElecTron-Ion Collider."
  Invited presentation on: *Frontiers of QCD with Precision nPDFs What lessons can we extract from the last 20 years?*
  Ecole Polytechnique, Palaiseau, France. September 7–11, 2015.

- QCD@LHC 2015 Workshop:
  Convener, *Heavy Quarks* session.
  1-5 September 2015 Queen Mary University of London

- DPS2015: 2015 Meeting of the APS Division of Particles and Fields.
  Invited presentation on: *Precision QCD for New Physics Searches: Working with heavy quarks at High Scales & High Orders.*
  University of Michigan, Ann Arbor, MI. August 4-8, 2015.

- 2015 LHeC Physics Programme Study:
  Invited presentation on: "Parton Distributions and the LH(e)C" LHeC Workshop. 24-26 June 2015. Chavannes-de-Bogis, Geneva, Switzerland.

- DIS2015: International Workshop on Deep-Inelastic Scattering and Related Subjects:
  *Chair and Lead Organizer:* SMU, Dallas, TX.
  Organized & hosted the DIS2015 international meeting on the SMU campus.
  Chaired both the *Physics Program Committee (PPC)* and the *Local Organizing Committee (LOC).*

- Annual Meeting of the Future Circular Collider Study:
  Invited presentation on: "The LHeC: Progress and Challenges for QCD."
  23-27 March 2015, Washington D.C. (USA)

*Presentations prior to 2015 are available upon request*

# Seminar, Colloquium, and Public Lectures

*Arranged in reverse chronological order.*

- 2024 Public Lecture:
  Moody Innovation Institute, Highland Park ISD Dallas, TX, USA. 28 March 2024,
  "Chasing Shadows: Unveiling the Mysteries of the Solar Eclipse & Embracing the Dark Marvels of the Cosmos."

- 2024 Public Lecture:
  SMU Faculty Club: Dallas, TX, USA. 15 February 2024,
  "Review of the 2023 Nobel Prizes."

- 2023 BNL Seminar::
  "Revealing the fundamental character of the strong force: From PDFs to the underlying QCD." Brookhaven National Laboratory, Upton NY. 7 April 2023.

- 2023 ISEF Presentation::
  "21st Century Physics: From Imagination to Discovery – What is your role in future discoveries?"
  International Science and Engineering Fair (ISEF). Dallas, Texas, USA May 14-19, 2023.
  https://www.societyforscience.org

- 2023 SMU Seminar::
  "Revealing the fundamental character of the strong force: From PDFs to the underlying QCD." SMU, Dallas, TX. 25 September 2023.

- 2022 Muenster Colloquium:
  WWU Münster Institut für Theoretische Physik. 7 April 2022.
  *The nCTEQ Project: Revealing the fundamental character of the strong force.*

- 2022 Public Lecture: Saint Michael and All Angels, Dallas, TX, USA. 7 November 2022,
  "Perspectives On Faith, Science, And Deciphering The Universe."

- 2022 Physics Circus Presentations:
  3 December 2022: *SMU College Access Programs* Contact: Erica Fayson.
  7 December 2022: *Club Hill Elementary 5th Grade*, (Garland, TX)
  Contact: Jessica Gordon , Julie Kneedler.
  7 December 2022: *Zion Lutheran Church and School*, (Dallas, TX) Contact: Bruce Boehne.

- Baylor Colloquium:
  *Nuclear PDFs & the Electron Ion Collider: From Quarks to Hadrons.*
  Baylor University, Waco, Texas. 15 January 2020.

- 2020 Physics Circus Presentations:
  May 2020: *Club Hill Elementary 5th Grade*, (Garland, TX) *cancelled due to covid-19.*
  May 2020: *Zion Lutheran Church and School*, (Dallas, TX) *cancelled due to covid-19.*

- LANL Seminar: *PDFs Flavor Determination and the nCTEQ PDFs Challenges and Opportunities for QCD*, Los Alamos National Lab, Los Alamos, NM.
  13 February 2019.

- 2019 Physics Circus Presentations:
  22 May 2019: *Club Hill Elementary 5th Grade*, (Garland, TX)
  [Contact: Julie Kneedler Email: jakneedl@garlandisd.net]
  9 May 2019: *Zion Lutheran Church and School*, (Dallas, TX)
  [Contact: Bruce Boehne Email:bruceboehne@netscape.net]
  7 December 2019: *SMU STEM Day*, Upward Bound & Upward Bound Math Science.
  [Contact: Erica Fayson, Director, Upward Bound Math & Science, SMU College Access Programs]

- Argonne HEP Seminar:
  Argonne National Laboratory, Chicago, IL.
  HEP Seminar: 15 October 2018.
  "PDF Flavor Determination and the nCTEQ PDFs"

- Japan KEK Theory Seminar:
  The Japan High Energy Accelerator Research Organization (KEK), Tsukuba, Japan.
  Theory Seminar: 13 April 2018.
  "Nuclear PDF Flavor Determination with nCTEQ"

- JINR, Krakow Theory Seminar:
  Joint Institute for Nuclear Research, Krakow, Poland.
  Theory Seminar: 14 March 2018.
  "PDF Flavor Determination"

- 2018 SPS Physics Presentations::
  Society of Physics Students (SPS).
  18 September 2018: *Thinking outside the 3-D box: a visit to hyperspace and higher dimensions.*
  14 November 2018: *Music & Physics:* (w/ Prof. Tom Tunks)

- 2018 Physics Circus Presentations::
  21 May 2018: *Club Hill Elementary 5th Grade*, (Garland, TX)
  [Contact: Julie Kneedler Email: jakneedl@garlandisd.net]
  21 May 2018: *Zion Lutheran Church and School*, (Dallas, TX)
  [Contact: Bruce Boehne Email:bruceboehne@netscape.net]
  1 December 2018: *SMU STEM Day*, Upward Bound & Upward Bound Math Science.
  [Contact: Erica Fayson, Director, Upward Bound Math & Science, SMU College Access Programs]
  18 December 2018: *Centerville Elementary School*, (Garland, TX).
  [Contact: Oliva Tarkington, MS, NCC, LPC, Counselor. OTarkington@garlandisd.net]
  18 December 2018: *Northlake Elementary School*, (Garland, TX).
  [Contact:Blair Donnell, brdonnel@garlandisd.net]

- SMU Public Eclipse Viewing:
  SMU Physics Department hosts the "Great American Solar Eclipse 2017 viewing." 21 August 2017.
  `http://blog.smu.edu/research/2017/08/23/total-eclipse-first-day-school/`

- Penn State Theory Seminar:
  State College, PA 24 April 2017.
  "Precision QCD at the LHC: challenges and opportunities updates from the nCTEQ collaboration."

- 2017 Physics Circus Presentations::
  10 October 2017: *Northlake Elementary*, (Garland, TX). [Contact: Blair Donnell, brdonnel@garlandisd.net]
  18 May 2017: *Centerville Elementary School*, (Garland, TX) [Contact: Olivia Hester]
  18 May 2017: *Club Hill Elementary 5th Grade*, (Garland, TX) [Contact: Amy Rule]
  18 May 2017: *Zion Lutheran Church and School*, (Dallas, TX) [Contact: Bruce Boehne]

- Manchester Theory Seminar:
  University of Manchester, Manchester, UK. 22 April 2016.
  "Things that go bump in the data: Working with heavy quarks at High Scales & High Orders."

- UVA Colloquium:
  *Things that go bump in the data: QCD Puzzles, Predictions, and Prognoses.*
  University of Virginia, Charlottesville, VA. 29 January 2016.

- 2016 Physics Circus Presentations::
  11 November 2016: *SMU Womens Basketball Game*, (Moody Coliseum) [Contact: Trae Roberts]
  14 May 2016: *SMU QuarkNet Program*, (Dallas, TX) [Contact: Simon Dalley]
  12 May 2016: *Centerville Elementary School*, (Garland, TX) [Contact: Olivia Hester]
  12 May 2016: *Club Hill Elementary 5th Grade*, (Garland, TX) [Contact: Amy Rule]
  12 May 2016: *Zion Lutheran Church and School*, (Dallas, TX) [Contact: Bruce Boehne]

- Fermilab Seminar:
  *Precision QCD for LHC New Physics Searches: Working with heavy quarks at High Scales & High Orders.*
  Fermilab, Batavia, IL. 30 July 2015.
  *As part of the Fermilab summer visitors program: 20-31 July 2015.*

- DIS2015 Public Lecture: Organizer: 26 April 2015.
  *If the universe is the answer,what is the question.*
  Guest Speakers: Prof. Joseph Izen (UT-Dallas), Prof. Patrick Skubic (Oklahoma), Prof. Chris Jackson (UT-Arlington), Prof. Stephen Sekula (SMU).

- 2015 Physics Symposium: Symposium Organizer: 12 April 2015.
  *Through a Cosmos Darkly The quest to Shine Light on a Dark Universe.*
  Astrophysics, Cosmology, and Dark Matters: Guest Speakers: Prof. Jodi Cooley (SMU), Prof. Robert Kehoe (SMU), Prof. Mustapha Ishak-Boushaki (UTD).

- Baylor Colloquium:
  *If the Higgs is the answer ...: What's next for the LHC in the upcoming Run 2.*
  Baylor University, Waco, Texas. 1 April 2015.

- Orsay Laboratoire:
  Divisional Seminar: *Progress & Challenges for QCD*
  Le Laboratoire de l'Accélérateur Linéaire (LAL) Orsay, 4 February 2015.

- LHeC Physics Programme Study:
  PDF Working Group Report
  20 January 2015. (Reported at CERN remotely)

- 2015 Physics Circus Presentations::
  14 May 2015: *Club Hill Elementary*, (Garland, TX) [Contact: Olivia Hester]
  14 May 2015: *Zion Lutheran Church and School*, (Dallas, TX) [Contact: Bruce Boehne]
  17 December 2015: *Trinity Basin Preparatory*, (Dallas, TX) [Contact: Hannah Moore (SMU Alum)]

*A listing of Seminar and Colloquium Presentations prior to 2015 is available upon request.*