Mary Hall Reno
Professor
Department of Physics and Astronomy
University of Iowa

Biographical Sketch

Mary Hall Reno, a professor at the University of Iowa, has served in multiple administrative roles in the Department of Physics and Astronomy. Beginning as Director (and co-Director) of Undergraduate Studies in 2001, she also served as Director of Graduate Studies and Associate Chair before becoming chair (DEO) of the department in 2009. During her 5-year term as chair, she oversaw a department of approximately 30 tenure track faculty members, 70 graduate students, 150 undergraduate majors and 60 research and support staff members. The large research effort in Physics and Astronomy was funded by federal and state grants and contracts, with annual research expenditures ranging from $14.7M-$22.7M during her term as chair.

While DEO, Reno provided strategic direction to the department. For example, she increased the visibility of her department through award nominations of faculty, staff and students. She negotiated the hiring of four new faculty members during her term. She coordinated a proposal for a new astronomy track of the Physics PhD, approved in 2012. Reno worked on compliance associated with federal funding, for example, she developed a course on the Responsible Conduct of Research for physics and astronomy graduate students. She also enabled the process to modernize the department's quality management system, in coordination with the Office of the Vice President for Research and the College of Liberal Arts and Sciences (CLAS). She was the principal investigator (or co-I) of 2 Carver Charitable Trust grants: to support undergraduate physics and astronomy equipment upgrades and to run a high school teacher training program in Summer 2012. She guided the department through a self-study and a Fall 2012 departmental review.

Reno has served the College and University through membership on numerous committees that include the CLAS Executive Committee, the CLAS Career Development Awards Committee, the CLAS Collegiate Consulting Group for Promotion and Tenure and the CLAS Scholarship Committee. She was a member of two Decanal reviews, for CLAS and for the College of Education. Reno's service to the profession includes membership on two physics department reviews at other universities. She was a member, and in 2009 was chair, of the Committee on the Status of Women in Physics of the American Physical Society.

Reno's research is focused on theoretical particle physics. To support her research effort, she has received funding from the Department of Energy, the National Science Foundation and NASA. She is an author of more than 100 publications in journals and conference proceedings. In recognition of her contributions to the physics of neutrino interactions and detection, especially at high energies, Reno was named a Fellow of the American Physical Society in 2010. She was named a CLAS Collegiate Scholar in 2019. Reno is a graduate of Reed College (BA, Physics) and Stanford University (PhD, Physics).

Mary Hall Reno

Physics and Astronomy

Curriculum Vitae as of February 28, 2020

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EDUCATION AND PROFESSIONAL HISTORY

Higher Education

1985	**PhD**, Elementary Particle Theory, Stanford University **Thesis:** Constraints on Left-Right Symmetric and O(18) Unified Theories
1980	**BA**, Reed College

Professional and Academic Positions

2002 - Present	**Professor**, Physics & Astronomy, University of Iowa
2009 - 2014	**Chair**, Physics & Astronomy, University of Iowa
2006 - 2009	**Associate Chair and Director of Graduate Studies**, Physics & Astronomy, University of Iowa
2001 - 2006	**Co-Director of Undergraduate Studies**, Physics & Astronomy, University of Iowa
1995 - 2002	**Associate Professor**, Physics & Astronomy, University of Iowa
1990 - 1995	**Assistant Professor**, Physics & Astronomy, University of Iowa
1988 - 1990	**Visiting Professor**, Fisica, CINVESTAV
1985 - 1988	**Postdoctoral Research Associate**, Theory Group, Fermilab

Honors and Awards

2010 - Present	**Fellow**, American Physical Society
2019 - 2024	**Collegiate Fellow**, College of Liberal Arts and Sciences
2003 - 2006	**Faculty Scholar Award**, University of Iowa
1999 - 2001	**Dean's Scholar Award**, University of Iowa, College of Liberal Arts

Memberships

American Physical Society

Professional Development Activities

2013	Training/Development Program, Addressing Implicit Bias, University of Iowa Three-part series on unconscious bias led by Lindsay Jarratt and Diane Finnerty.
2013	Training/Development Program, Professional Skills Development for Women Physicists/Leadership Development, Committee on the Status of Women in Physics/American Physical Society, led by Sandra Shullman, COACh Consultant, Executive Development Group - Ohio
2011	Training/Development Program, TILE Faculty Institute, University of Iowa
2009 - 2010	Fellowship, Academic Leadership Program (ALP), Committee on Institutional Cooperation (CIC)
2005	Training/Development Program, Professional Skills Development for Women Physicists, Committee on the Status of Women in Physics/American Physical Society, Professional Skills Development workshops are designed to provide women physicists with professional training in effective negotiation, communication and leadership skills, as well as a special opportunity for networking. The primary workshop goal is to produce more women leaders in physics and to help these women achieve their full potential in the top ranks of their profession.

TEACHING

Courses Taught at the University of Iowa since 1990

First Year Seminar: The Physics of Space and Time, College Physics I & II, Introductory Physics II, Physics I & II & III & IV, Intermediate Mechanics, Electricity and Magnetism I & II, Introduction to Quantum Mechanics I & II, Quantum Field Theory, Particle Physics, Nuclear and Particle Physics, Quantum Mechanics I & II, Special Topics in Quantum Mechanics, Special Topics in Physics, Ethics in Physics for Graduate Students

Student Mentoring

PHD, Dissertation Committee Chair (6)

Weidong Bai (2019), Minh Vu Luu (2017), Yu Seon Jeong (2011), Alexander Bulmahn (2010), Lara Pasquali (1999), Dal Soo Oh (1998)

MS, Chair (4)

Weidong Bai (2014), Pelin Cetin-Abaci (2008), Yiwen Huang (2005), Kevin Barger (1992)

Innovations in Teaching (Other Teaching Contributions)

Design & Implementation of New Courses

2017	Developed and taught a new course (1 s.h.) with combined lectures/student presentations on Neutrino Physics (Special Topics in Physics). This was designed to meet the needs of the new neutrino physics experimental effort in the department.
2013	Developed and taught a new course (1 s.h.) with combined lectures/student presentations on Particle Dark Matter (Special Topics in Physics).
2011	Developed new course (1 s.h.) on the responsible conduct of research for all first year graduate students and postdocs (as needed) in the Department of Physics and Astronomy, to satisfy the University mandate for this training.
2010	First Year Seminar on the physics of space and time.

Developed 5 year BA (Physics)/MAT Program

2009	In partnership with the College of Education and other CLAS science departments, we developed 5 year combined disciplinary BA and Master of Arts in Teaching program.

Extramural Teaching Activities

2012	Instructor of record of Workshops and Special Training in Physics, the course associated with the Iowa Regents Modeling Workshop in Physics funded by the Carver Charitable Foundation for which I was the local PI. Taught primarily by two master teachers, this course was for high school physics teachers. For the study of the effectiveness of the training, I obtained IRB approval at the UI.

Revisions in Existing Courses

2017	In Physics 3 (PHYS:2703), I developed a computer lab to help students begin thinking algorithmically, to prepare them for the first lab that introduces python. With this addition, there are 5 labs to introduce students in Physics 3 to programming. The other 4 labs were revised based on student and TA suggestions.
2016	In Physics 3 (PHYS:2703), with TA Judah Unmuth-Yockey, I developed 4 computer labs to teach students to use Python.
2015	Prepared 4 audioPDF modules on mathematical topics (2D polar coordinates, complex variables, Taylor series, spherical polar coordinates for the Intermediate Mechanics course.
2015	Added two Mathematica exercises as part of the homework assignments to Physics 3 (PHYS:2703) to begin to meet the need for experience with computational tools at the sophomore level.
2014 - 2015	Worked with Prof. Craig Kletzing to establish TILE classroom discussion sections for the PHYS:1611 Introductory Physics I (for engineering students) Spring 2015 course. I am assisting in one discussion section for the spring semester (Wednesdays 3:30-4:20)

SCHOLARSHIP

Publications (High Energy Physics author ordering is conventionally alphabetic)

CLAS * System * = Senior Author, Major Contribution, ** = Secondary Contribution *** = Equal Contribution, **** = Minor Contribution

Refereed Articles

1. ** Anchordoqui, L. A., Bergman, D. R., Bertaina, M. A., Fenu, F., Krizmanic, J. F., Liberatore, A., Olinto, A. V., Reno, M. H., Sarazin, F., Shinozaki, K., Soriano, J. F., Ulrich, R., Unger, M., Venters, T. M., Wiencke, L. (2020). Performance and science reach of POEMMA for ultrahigh-energy particles. *Physical Review D*, *101*, 023012. https://arxiv.org/abs/1907.03694 , name change, from "UHECRs with POEMMA"
2. * Chipman, S., Diesing, R., Reno, M. H., Sarcevic, I. (2019). Anomalous ANITA air shower events and tau decays. *Physical Review D*, *100*, 063011.
3. *** Reno, M. H., Krizmanic, J. F., Venters, T. M. (2019). Cosmic tau neutrino detection via Cherenkov signals from air showers from Earth-emerging taus. *Physical Review D*, *100*, 063010. https://arxiv.org/abs/1902.11287
4. *** Bai, W., Reno, M. H. (2019). Prompt neutrinos and intrinsic charm at SHiP. *Journal of High Energy Physics*, *02(2019)*, 077. https://arxiv.org/abs/1807.02746
5. *** Jeong, Y. S., Palomares-Ruiz, S., Reno, M. H., Sarcevic, I. (2018). Probing secret interactions of eV-scale sterile neutrinos with the diffuse supernova neutrino background. *Journal of Cosmology and Astroparticle Physics (JCAP)*, *06*(019). arXiv:1803.04541
6. *** Jeong, Y. S., Luu, M. V., Reno, M. H., Sarcevic, I. (2017). Tau energy loss and ultrahigh energy skimming tau neutrinos. *Physical Review D*, *96*, 043003. https://arxiv.org/abs/1704.00050
7. *** Bhattacharya, A., Enberg, R., Jeong, Y. S., Kim, C. S., Reno, M. H., Sarcevic, I., Stasto, A. (2016). Prompt atmospheric neutrino fluxes: perturbative QCD models and nuclear effects. *Journal of High Energy Physics*, *JHEP11(2016)*, 167. http://link.springer.com/article/10.1007%2FJHEP11%282016%29167
8. Alekhin, S., Ruchayskiy, O., et al., ... Reno, M. H. ... (2016). A facility to search for hidden particles at the CERN SPS: the SHiP physics case. *Reports on Progress in Physics*, *79*, 124201. http://dx.doi.org/10.1088/0034-4885/79/12/124201
9. *** Arguelles, C. A., Halzen, F., Wille, L., Kroll, M., Reno, M. H. (2015). High-energy behavior of photon, neutrino, and proton cross sections. *Physical Review D*, *92*(7), 074040. http://journals.aps.org/prd/abstract/10.1103/PhysRevD.92.074040
10. *** Bhattacharya, A., Enberg, R., Reno, M. H., Sarcevic, I., Stasto, A. (2015). Perturbative charm production and the prompt atmospheric neutrino flux in light of RHIC and LHC. *Journal of High Energy Physics*, (6), 110.
11. *** Bhattacharya, A., Enberg, R., Reno, M. H., Sarcevic, I. (2015). Charm decay in slow-jet supernovae as the origin of the IceCube ultra-high energy neutrino events. *Journal of Cosmology and Astroparticle Physics* (06), 034. http://iopscience.iop.org/article/10.1088/1475-7516/2015/06/034/pdf
12. *** Jeong, Y. S., Kim, C. S., Luu, M. V., Reno, M. H. (2014). Color dipole cross section and inelastic structure function. *Journal of High Energy Physics*, (11), 025. http://link.springer.com/article/10.1007%2FJHEP11%282014%29025
13. *** Bhattacharya, A., Reno, M. H., Sarcevic, I. (2014). Reconciling neutrino flux from heavy dark matter decay and recent events at IceCube. *Journal of High Energy Physics*, (6), 110. http://link.springer.com/article/10.1007%2FJHEP06%282014%29110
14. *** Guver, T., Erkoca, A. E., Reno, M. H., Sarcevic, I. (2014). On the capture of dark matter by neutron stars. *Journal of Cosmology and Astroparticle Physics*, (5), 013. http://iopscience.iop.org/article/10.1088/1475-7516/2014/05/013/meta;jsessionid=BD79E69B952AE4A0BA1039829EDA8F39.c2.iopscience.cld.iop.org
15. *** Jeong, Y. S., Kim, C. S., Reno, M. H. (2012). Majorana dark matter cross sections with nucleons at high energies. *Physical Review D*, *86*(9), 094025. http://journals.aps.org/prd/abstract/10.1103/PhysRevD.86.094025
16. *** Jeong, Y. S., Reno, M. H., Sarcevic, I. (2012). Radio Cherenkov signals from the Moon: Neutrinos and cosmic rays. *Astroparticle Physics*, *35*(6), 383-395.
17. *** Erkoca, A. E., Reno, M. H., Sarcevic, I. (2010). Probing dark matter models with neutrinos from the Galactic center. *Physical Review D*, *82*(11), 113006.

18. *** Bulmahn, A., Reno, M. H. (2010). Secondary atmospheric tau neutrino production. *Physical Review D*, *82*(5), 057302.
19. *** Jeong, Y. S., Reno, M. H. (2010). Tau neutrino and antineutrino cross sections. *Physical Review D*, *82*(3), 033010.
20. *** Jeong, Y. S., Reno, M. H. (2010). Quark mass effects in high energy neutrino-nucleon scattering. *Physical Review D*, *81*(11), 114012.
21. *** Erkoca, A. E., Gelmini, G., Reno, M. H., Sarcevic, I. (2010). Muon fluxes and showers from dark matter annihilation in the Galactic center. *Physical Review D*, *81*(9), 096007.
22. *** Bulmahn, A., Reno, M. H. (2010). High energy leptons from muons in transit. *Physical Review D*, *81*(5), 053003.
23. *** Erkoca, A. E., Reno, M. H., Sarcevic, I. (2009). Muon fluxes from dark matter annihilation. *Physical Review D*, *80*(4), 043514.
24. *** Bulmahn, A., Reno, M. H. (2009). Cross sections and energy loss for lepton pair production in muon transport. *Physical Review D*, *79*(5), 053008.
25. *** Enberg, R., Reno, M. H., Sarcevic, I. (2009). High energy neutrinos from charm in astrophysical sources. *Physical Review D*, *79*(5), 053006.
26. *** Enberg, R., Reno, M. H., Sarcevic, I. (2008). Prompt neutrino fluxes from atmospheric charm. *Physical Review D*, *78*(4), 043005.
27. *** Schienbein, I., Radescu, V. A., Zeller, G. P., Christy, M. E., Keppel, C. E., McFarland, K. S., Melnitchouk, W., Olness, F. I., Reno, M. H., Steffens, F., Yu, J.-Y. (2008). Target mass corrections. *Journal of Physics G-Nuclear and Particle Physics*, *35*(5), 053101.
28. *** Reno, M. H., Sarcevic, I., Uscinski, J. (2007). Cosmogenic neutrinos and quasistable supersymmetric particle production. *Physical Review D*, *76*(12), 125030.
29. *** Huang, Y., Reno, M. H., Sarcevic, I., Uscinski, J. (2006). Weak interactions of supersymmetric staus at high energies. *Physical Review D*, *74*(11), 115009.
30. Reno, M. H. (2006). Electromagnetic structure functions and neutrino-nucleon scattering. *Physical Review D*, *74*(3), 033001.
31. *** Reno, M., Sarcevic, I., Su, S. (2005). Propagation of supersymmetric charged sleptons at high energies. *Astroparticle Physics*, *24*(1-2), 107-115.
32. *** Dutta, S., Huang, Y., Reno, M. (2005). Tau neutrino propagation and tau energy loss. *Physical Review D*, *72*(1), 013005.
33. *** Jones, J., Mocioiu, I., Sarcevic, I., Reno, M. (2005). Tracing very high energy tau neutrinos from cosmological sources in ice. *International Journal of Modern Physics A*, *20*(6), 1204-1211.
34. *** Kretzer, S., Olness, F., Pumplin, J., Stump, D., Tung, W., Reno, M. (2004). Parton structure of the nucleon and precision determination of the Weinberg angle in neutrino scattering. *Physical Review Letters*, *93*(4), 041802.
35. *** Kretzer, S., Reno, M. (2004). Target mass corrections to electroweak structure functions and perturbative neutrino cross sections. *Physical Review D*, *69*(3), 034002.
36. *** Jones, J., Mocioiu, I., Reno, M., Sarcevic, I. (2004). Tracing very high energy neutrinos from cosmological distances in ice. *Physical Review D*, *69*(3), 033004.
37. *** Kretzer, S., Reno, M. (2002). Tau neutrino deep inelastic charged current interactions. *Physical Review D*, *66*(11), 113007.
38. *** Dutta, S., Reno, M., Sarcevic, I. (2002). Secondary neutrinos from tau neutrino interactions in Earth. *Physical Review D*, *66*(7), 077302.
39. *** Dutta, S., Reno, M., Sarcevic, I. (2002). Black hole detection with the OWL-Airwatch telescope. *Physical Review D*, *66*(3), 033002.
40. *** Dutta, S., Reno, M., Sarcevic, I. (2001). High energy neutrino signals of four neutrino mixing. *Physical Review D*, *64*(11), 113015.
41. *** Dutta, S., Reno, M., Sarcevic, I., Seckel, D. (2001). Propagation of muons and taus at high energies. *Physical Review D*, *63*(9), 094020.
42. *** Dutta, S., Reno, M., Sarcevic, I. (2000). Tau neutrinos underground: Signals of nu(mu)->nu(tau) oscillations with extragalactic neutrinos. *Physical Review D*, *62*(12), 123001.
43. *** Iyer, S., Reno, M., Sarcevic, I. (2000). Searching for nu(mu)->nu(tau) oscillations with extragalactic neutrinos. *Physical Review D*, *61*(5), 053003.
44. *** Pasquali, L., Reno, M.H., Sarcevic, I. (1999). Lepton fluxes from atmospheric charm. *Physical Review D*, *59*, 034020.

45. *** Pasquali, L., Reno, M.H. (1999). Tau-neutrino fluxes from atmospheric charm. *Physical Review D*, *59*, 093003.
46. *** Gandhi, R., Quigg, C., Reno, M. H., Sarcevic, I. (1998). Neutrino interactions at ultrahigh-energies. *Physical Review D*, *58*, 093009.
47. *** Baer, H., Harris, B.W., Reno, M. H. (1998). Next-to-leading order slepton pair production at hadron colliders. *Physical Review D*, *57*, 5871-5874.
48. *** Pasquali, L., Reno, M.H., Sarcevic, I. (1998). Secondary decays in atmospheric charm contributions to the flux of muons and muon neutrinos. *Astroparticle Physics*, *9*, 193-202.
49. * Duncan, M. J., Reno, M.H. (1997). Z polarization in the Higgs boson signal at the CERN LHC. *Physical Review D*, *56*, 3129-3134.
50. *** Baer, H., Reno, M. H. (1996). Multiple parton emission effects in next-to-leading order direct photon production. *Physical Review D*, *54*, 2017-2022.
51. *** Gandhi, R., Quigg, C., Reno, M. H., Sarcevic, I. (1996). Ultrahigh-energy neutrino interactions. *Astroparticle Physics*, *5*, 81-110.
52. * Barger, K. R., Reno, M.H. (1995). Hadron collider limits on anomalous W W gamma couplings. *Physical Review D*, *51*, 90-98.
53. Reno, M.H. (1994). Relative distributions of Ws and Zs at low transverse momenta. *Physical Review D*, *49*, 4326-4330.
54. *** Baer, H., Chen, C.-h., Reno, M. H. (1993). An Estimate of jet activity in t anti-t events. *Physical Review D*, *48*, 5168-5174.
55. *** Baer, H., Reno, M. H. (1993). QCD corrections to leptonic and hadronic observables from p p to W+ X Ï„ Î½_Ï„X. *Physical Review D*, *47*, 3906-3913.
56. *** Barger, K. R., Reno, M. H. (1993). Theoretical uncertainties in the QCD predictions for transverse momentum distributions in pion-nucleon production of lepton pairs. *Physical Review D*, *47*, 933-939.
57. *** Baer, H., Reno, M. H. (1992). W and Z production at pp colliders: Parton showers merged with O(alpha-s) Monte Carlo approach. *Physical Review D*, *45*, 1503-1511.
58. *** Baer, H., Reno, M. H. (1991). A Complete O (\alpha-s) event generator for pp-> W+ X -> e nu X with parton showering. *Physical Review D*, *44*, 3375-3378.
59. *** Baer, H., Reno, M. H. (1991). O (alpha-s) corrections to observables from p p to W+ X to e+ neutrino X. *Physical Review D*, *43*, 2892-2899.
60. *** Arnold, P. B., Ellis, R. K., Reno, M.H. (1989). High p(t) W and Z Production at the Tevatron. *Physical Review D*, *40*, 912.
61. *** Arnold, P. B., Reno, M. H. (1989). The Complete Computation of High p(t) W and Z Production in 2nd Order QCD. *Nuclear Physics B*, *319*, 37.
62. *** Reno, M.H., Quigg, C. (1988). On the Detection of Ultrahigh-Energy Neutrinos. *Physical Review D*, *37*, 657.
63. *** Reno, M.H., Seckel, D. (1988). Primordial Nucleosynthesis: The Effects of Injecting Hadrons. *Physical Review D*, *37*, 3441.
64. *** Barger, V. D., Deshpande, N.G., Keung, W.-Y., Reno, M.H., Ruiz-Altaba, M. (1987). Signals of E(6) Vector Leptons at the SSC. *Modern Physics Letters A*, *2*, 437.
65. *** Quigg, C., Reno, M.H., Walker, T.P. (1986). Interactions of Ultrahigh-Energy Neutrinos. *Physical Review Letters*, *57*, 774.
66. *** Soldate, M., Reno, M. H., Hill, C. T. (1986). Nonabelian Family Symmetry and the Origin of Fermion Masses and Mixing Angles. *Physics Letters B*, *179*, 95.
67. *** Haber, H. E., Reno, M. H. (1986). Signatures of Heavy Neutrino Production at the CERN Collider. *Physical Review D*, *34*, 2732.
68. *** Bagger, J., Dimopoulos, S., Masso, E., Reno, M.H. (1985). A Realistic Theory of Family Unification. *Nuclear Physics B*, *258*, 565.
69. *** Bagger, J., Dimopoulos, S., Masso, E., Reno, M.H. (1985). Experimental Consequences of Family Unification. *Physical Review Letters*, *54*, 2199.
70. *** Gilman, F. J., Reno, M.H. (1984). Restrictions From the Neutral K and B Meson Systems on Left-right Symmetric Gauge Theories. *Physical Review D*, *29*, 937.
71. *** Gilman, F. J., Reno, M.H. (1983). Restrictions on Left-right Symmetric Gauge Theories From the Neutral Kaon System and B Decays. *Physics Letters B*, *127*, 426.
72. ** Crandall, R. E., Reno, M. H. (1982). Ground state energy bounds for potentials |x|^\nu. *Journal of Mathematical Physics*, *23*(1), 64-70. http://jmp.aip.org/resource/1/jmapaq/v23/i1/p64_s1

Conference Proceeding

1. **Jeong, Y. S., Palomares-Ruiz, S., Reno, M. H., Sarcevic, I. (2019). Secret interactions of eV-scale sterile neutrinos and the diffuse supernova neutrino background flux. *Proceedings of the 20th International Workshop on Neutrinos (NuFact2018)* (vol. PoS(NuFACT2018), pp. 150). Proceedings of Science PoS. pos.sissa.it
2. **** Olinto, A. V., ... Reno, M. H. ..., et al. (2019). *The POEMMA (Probe of Extreme Multi-Messenger Astrophysics) mission* (vol. ICRC2019, pp. 378). Proceedings of Science PoS.
3. * Reno, M. H., Venters, T. M., Krizmanic, J. F., Anchordoqui, L. A., Guepin, C., Olinto, A. V. (2019). *A new calculation of Earth-skimming very- and ultra-high energy tau neutrinos* (vol. ICRC2019, pp. 989). Proceedings of Science PoS.
4. ** Krizmanic, J. F., Akaike, Y., Bergman, D. R., Eser, J., Patel, S., Reno, M. H., Romero-Wolf, A., Sarazin, F., Venters, T. M., Anchordoqui, L. A., Mackovjak, S., Olinto, A. V., Wiencke, L., Wissel, S., Ruestle, A. (2019). *NuSpaceSim: A Comprehensive Neutrino Simulation Package for Space-based & Suborbital Experiments* (vol. ICRC2019, pp. 936). Proceedings of Science PoS.
5. Reno, M. H. (2017). Neutrino connection with cosmic ray origin. S. Ogawa (Ed.), *Proc. 7th Intl. Workshop on Very High Energy Particle Astronomy in 2014 (VHEPA2014)* (vol. 15, pp. 011007 [6 pages]). Physical Society of Japan JPS Conference Proceedings.
6. **** Olinto, A. V., ..., Reno, M. H., et al. (2017). *POEMMA: Probe of extreme multi-messenger astrophysics*. Proceedings of the 35th International Cosmic Ray Conference (ICRC 2017) Busan, Korea (online publication). https://arxiv.org/abs/1708.07599
7. ** Jeong, Y. S., Bhattacharya, A., Enberg, R., Kim, C. S., Reno, M. H., Sarcevic, I., Stasto, A. (2017). Prompt atmospheric neutrino flux from the various QCD models. *Proceedings of ISMD2016* (vol. 141, pp. 07002). EPJ Web of Conferences.
8. ** Jeong, Y. S., Bhattacharya, A., Enberg, R., Kim, C., Reno, M. H., Sarcevic, I., Stasto, A. (2017). *Prompt atmospheric neutrino flux in perturbative QCD and its theoretical uncertainties* (vol. 888, pp. 12117). Journal of Physics Conference Series.
9. ** Jeong, Y. S., Bhattacharya, A., Enberg, R., Kim, C. S., Reno, M. H., Sarcevic, I., Stasto, A. (2016). Prompt atmospheric neutrino flux. *Proceedings of the 38th International Conference on High Energy Physics* (vol. ICHEP2016, pp. 083). Proceedings of Science.
10. Reno, M. H. (2013). Prompt leptons from atmospheric charm production. *11th Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2012)* (vol. 1560, pp. 350-354). AIP Conference Proceedings.
11. Reno, M. H. (2011). Neutrinos from Dark Matter. *Cosmic Rays for Particle and Astroparticle Physics* (vol. 6, pp. 603-612). Singapore: Proceedings of the 12th ICATPP Conference (World Scientific).
12. *** Reno, M. H., Sarcevic, I., Uscinski, J. (2007). Weak interactions and quasi-stable particle energy loss. *Proceedings of the TeV Particle Astrophysics II Workshop* (vol. 60, pp. 203-206). Physics Conference Series.
13. Reno, M. H. (2006). Neutrino cross sections at HERA and beyond. *Proceedings of the 13th International Symposium on Very High-Energy Cosmic Ray Interactions* (vol. 151, pp. 255-259). Nuclear Physics B-Proceedings Supplements.
14. *** Jones, J., Mocioiu, I., Sarcevic, I., Reno, M. (2005). Tracing very high energy tau neutrinos from cosmological sources in ice. *Coral Gables Conference on Launching of Belle Epoque in High-Energy Physics and Cosmology* (vol. 20, pp. 298-305). International Journal of Modern Physics A.
15. Reno, M. (2005). Deep inelastic neutrino interactions. *Proceedings of 8th Workshop on Non-perturbative QCD* (19th ed., vol. 20, pp. 4664-4669). International Journal of Modern Physics A.
16. *** Jones, J., Mocioiu, I., Sarcevic, I., Reno, M. (2005). Ultrahigh energy tau neutrinos. *Proceedings of 8th Workshop on Non-perturbative QCD* (19th ed., vol. 20, pp. 4656-4663). International Journal of Modern Physics A.
17. Reno, M. (2005). High energy neutrino cross sections. *Proceedings of the 21st International Conference on Neutrino Physics and Astrophysics* (vol. 143, pp. 407-413). Nuclear Physics B-Proceedings Supplements.
18. *** Kretzer, S., Reno, M. (2005). sigma(DIS)(vN), NLO perturbative QCCD and O(1GeV) mass corrections. *Proceedings of the 3rd International Workshop on Neutrino Nucleus Interactions in the Few GeV Region* (vol. 139, pp. 134-139). Nuclear Physics B-Proceedings Supplements.
19. *** Kretzer, S., Reno, M. (2004). Neutrino scattering in perturbative QCD and implications for the

Weinberg angle. *Proceedings of the 8th Conference on the Intersections of Particle and Nuclear Physics* (vol. 698, pp. 165-167). AIP Conference Proceedings.

20. *** Iyer Dutta, S., Mocioiu, I., Reno, M. H., Sarcevic, I. (2003). Tau neutrinos at EeV energies. *Proceedings of the 28th International Cosmic Ray Conference* (pp. 1435-1438).
21. *** Dutta, S., Reno, M., Sarcevic, I. (2003). Ultrahigh energy neutrinos. *Neutrinos and Implications for Physics Beyond the Standard Model* (22nd ed., vol. 18, pp. 4085-4096). International Journal of Modern Physics A.
22. *** Kretzer, S., Reno, M. H. (2002). Deep inelastic neutrino interactions. *2nd International Workshop on Neutrino-Nucleus Interactions in the Few GeV Region*. arXiv:hep-ph/0306307, in online collection of papers at http://inspirehep.net.
23. *** Dutta, S., Reno, M., Sarcevic, I. (2002). High energy tau neutrinos. *Coral Gables Conference on Cosmology and Elementary Particle Physics* (vol. 624, pp. 271-279). AIP CONFERENCE PROCEEDINGS.
24. *** Seckel, D., Reno, M. H., Dutta, S. I., Sarcevic, I. (2001). Electromagnetic energy loss for muons and taus at high energy. *27th International Cosmic Ray Conference (ICRC 2001)Hamburg, Germany, August 7-15, 2001* (pp. 1046-1049). http://www.copernicus.org/icrc/papers/ici7177_p.pdf
25. *** Iyer Dutta, S., Reno, M. H., Sarcevic, I. (2001). Ultrahigh-energy neutrinos in the light of superK. *proceedings of APS / DPF / DPB Summer Study on the Future of Particle Physics (Snowmass 2001), Snowmass, Colorado, 30 Jun - 21 Jul 2001* (vol. C010630, pp. P403). eConf.
26. *** Reno, M. H., Sarcevic, I., Sterman, G. F., Stratmann, M., Vogelsang, W. (2001). Ultrahigh-energy neutrinos, small x and unitarity. *proceedings of APS / DPF / DPB Summer Study on the Future of Particle Physics (Snowmass 2001), Snowmass, Colorado, 30 Jun - 21 Jul 2001* (vol. C010630, pp. P508). eConf.
27. *** Pasquali, L., Reno, M. H., Sarcevic, I. (1999). Muon and muon-neutrino fluxes from atmospheric charm. *Topics in astroparticle and underground physics.Proceedings, 5th International Workshop, TAUP'97, GranSasso, Italy, September 7-11, 1997* (vol. 70, pp. 361-363). Nuclear Physics Proceedings Supplement.
28. *** Pasquali, L., Reno, M. H., Sarcevic, I. (1999). Neutrinos and muons from atmospheric charm. *Proceedings, 26th International Cosmic Ray Conference, August 17-25, 1999, Salt Lake City*. http://krusty.physics.utah.edu/icrc1999/root/vol2/h4_2_12.pdf
29. *** Pasquali, L., Reno, M. H., Sarcevic, I. (1998). Atmospheric neutrinos from charm. *Particle physics and the early Universe. Proceedings:2nd International Workshop, COSMO'98, Asilomar, USA, Nov15-20, 1998* (pp. 408-411).
30. *** Gandhi, R., Quigg, C., Reno, M. H., Sarcevic, I. (1996). Detecting neutrinos from AGNs and topological defects with neutrino telescopes. *DPF '96, The Minneapolis Meeting*. online proceedings, hep-ph/9609516. http://www.slac.stanford.edu/spires/find/books/www?cl=QCD161:A6:1996
31. *** Gandhi, R., Quigg, C., Reno, M. H., Sarcevic, I. (1996). New predictions for neutrino telescope event rates. *Theoretical and phenomenological aspects of underground physics. Proceedings, 4th International Workshop, TAUP 95,Toledo, Spain, September 17-21, 1995* (vol. 48, pp. 475-477). Nuclear Physics Proceedings Supplement.
32. *** Gandhi, R., Quigg, C., Reno, M. H., Sarcevic, I. (1996). Ultrahigh-energy neutrino interactions and neutrino telescope event rates. *Neutrino mass, dark matter, gravitational waves,monopole condensation, and light cone quantization.Proceedings, International Conference, Orbis Scientiae1996, Miami Beach, USA, January 25-28, 1996* (pp. 121-130). http://lss.fnal.gov/archive/preprint/fermilab-conf-96-477-t.shtml
33. Gandhi, R., Quigg, C., Reno, M. H., Sarcevic, I. (1995). Small x parton densities from HERA and the ultrahigh-energy neutrino - nucleon cross-sections. *Frontiers in strong interactions. Proceedings, 7thRencontres de Blois, 7th Blois Workshop on Elastic andDiffractive Scattering, Blois, France, June 20-24, 1995* (pp. 215-219). http://lss.fnal.gov/cgi-bin/find_paper.pl?conf-95-423
34. Duncan, M. J., Reno, M. H. (1994). Z polarization in p p —> Z Z —>lepton+ lepton- neutrino anti-neutrino at the LHC. *The Albuquerque meeting. Proceedings, 8th Meeting,Division of Particles and Fields of the American PhysicalSociety, Albuquerque, USA, August 2-6, 1994. Vol. 1,2*. http://alice.cern.ch/format/showfull?sysnb=0187599
35. Duncan, M. J., Reno, M. H. (1993). Enhancing the Higgs signal in p p —> Z Z —> lepton+ lepton- neutrino anti-neutrino. *Workshop on Physics at Current Accelerators and theSupercollider Argonne, Illinois, June 2-5, 1993*.

36. Yuan, C. P., others (1993). Report of the subgroup on the top quark. *Workshop on Physics at Current Accelerators and the Supercollider Argonne, Illinois, June 2-5, 1993*. http://www.osti.gov/energycitations/product.biblio.jsp?osti_id=10110467
37. Reno, M. H. (1992). The Total neutrino cross-section at very high-energies. *High-energy Neutrino Astrophysics Workshop on Astrophysics of High-energy Neutrinos: Particle Physics, Sources, Production Mechanisms and Detection Prospects Honolulu, Hawaii, March 23-26, 1992*. http://lss.fnal.gov/archive/other/uiowa-92-10.pdf
38. Reno, M. H. (1991). Merging O (alpha-s) perturbation theory with parton showers in p p to W+ X to e+ neutrino X. *Joint International Lepton Photon Symposium at HighEnergies (15th) and European Physical Society Conferenceon High-energy Physics Geneva, Switzerland, July 25-August1, 1991* (vol. C910725V1, pp. 423). Conf. Proc..
39. Reno, M. H. (1990). Introduction to perturbative QCD. *Proceedings of the Second Workshop on Particles and Fields* (vol. 36, pp. S20-S64). Rivista Mexicana de Fisica Supplemento 1.
40. Baer, H., Reno, M. H. (1990). Observables from $p p W+ X e+ νX$ beyond leading order. *Beyond the Standard Model II - A Critical Review of theStandard Model and the Prospects for Discovering NewPhysics Norman, Oklahoma, November 1-3, 1990*. http://alice.cern.ch/format/showfull?sysnb=0127750
41. Arnold, P. B., Reno, M. H. (1989). Order alpha-s^2 corrections to W and Z transverse momentum distributions at the SPS and TEVATRON colliders. *Proceedings of the 7th Topical Workshop on Proton Antiproton ColliderPhysics*. Teaneck, NJ: World Scientific.
42. Reno, M. H. (1989). Primordial Nucleosynthesis: The Effects of Injecting Hadrons. *Astronomy, Cosmology and Fundamental Physics: Proceedings* (vol. 155). Astronomy, Cosmology and Fundamental Physics: Proceedings, Kluwer, (Astrophysics and Space Science Library). http://lss.fnal.gov/cgi-bin/find_paper.pl?conf-88-086
43. Barger, V. D., Deshpande, N. G., Keung, W.-Y., Reno, M. H., Ruiz-Altaba, M. (1986). Heavy vector leptons at the SSC. *Physics of the Superconducting Supercollider: Proceedings, 1986 Summer Study, June 23 - July 11, 1986, Snowmass, Colorado* (vol. C860623, pp. 221). Conf. Proc..
44. Deshpande, N. G., Gunion, J. F., Kosower, D., Reno, M. H., Soni, A. (1986). Signals of Horizontal Symmetries at the SSC. *Physics of the Superconducting Supercollider:Proceedings, 1986 Summer Study, June 23 - July 11, 1986,Snowmass, Colorado* (vol. C860623, pp. 250). Conf. Proc. (Snowmass Summer Study 1986).
45. Barger, V. D., others (1986). Signatures for exotic quark singlets from superstrings. *Physics of the Superconducting Supercollider:Proceedings, 1986 Summer Study, June 23 - July 11, 1986,Snowmass, Colorado* (vol. C860623, pp. 216-220). Conf. Proc. (Snowmass Summer Study 1986).

Publications In Progress

Journal Article

2020 *** Bai, W., Diwan, M., Jeong, Y. S., Garzelli, M. V., Reno, M. H. (2020). Far-forward neutrinos at the Large Hadron Collider. Submitted to *Journal of High Energy Physics*.

2019 *** Venters, T., Reno, M. H., Krizmanic, J. F., Anchordoqui, L. A., Guepin, C., Olinto, A. V. (2019). POEMMA's target of opportunity sensitivity to cosmic neutrino transient sources. Submitted to *Physical Review D*.

Grants and Contracts

Funded

Apr 2019 - Mar 2020 *High Energy Experimental and Theoretical Physics Research at the University of Iowa*
Funded by Department of Energy. Award amount: ($117,000.00).

Apr 2016 - Mar 2019 *High Energy Experimental and Theoretical Research at the University of Iowa*
Funded by Department of Energy. Award amount: ($300,000.00). Investigator/s Mary Hall Reno (Co-Principal), Yannick Meurice (Co-Principal), Jane Nachtman (Principal Investigator), Yasar Onel (Co-Principal), Usha Mallik (Co-Principal). $300,000 to theory task. Reno awarded approximately $180,000 of the $300,000.

Feb 2019 – Feb 2022 *Modeling of the Air Shower Signals from Cosmic Neutrinos for Space-Based*

Experiments
Funded by NASA. Award amount: ($236,965.00). Investigator/s John Krizmanic (Principal Investigator, NASA/GSFC), Toni Ventors (Co-Investigator, NASA/GSFS), Yosui Akaike (Co-Investigator, NASA/GSFC), Mary Hall Reno (Co-Investigator, U Iowa), Doug Bergman (Co-Investigator, U Utah), Fred Sarazin (Co-Investigator, Colorado School of Mines), Andres Romero-Wolf (Co-Investigator, JPL/Caltech).

Completed

May 2013 - Mar 2016 *Research in Lattice Gauge Theory and in the Phenomenology of Neutrinos and Dark Matter*
Funded by Department of Energy. Award amount: ($110,000.00). Investigator/s Mary Hall Reno (Co-Principal), Yannick Meurice (Principal Investigator). Total amount awarded to Reno is $110,000 of $291,000 total budget.

Apr 2013 - Jun 2014 *Undergraduate Physics and Astronomy Laboratory Equipment Upgrades at the University of Iowa*
Funded by Carver Charitable Trust. Award amount: ($199,460.00). Investigator/s Mary Hall Reno (Principal Investigator), Robert Mutel (Co-Principal), Frederick Skiff (Co-Principal).

Jan 2002 - Apr 2013 *Theoretical investigations in neutrino physics portion of Task D*
Funded by Department of Energy. Investigator/s Mary Hall Reno (Co-Principal).

Dec 2012 *Iowa Regents Modeling Workshops in Physics*
Funded by Carver Charitable Trust. Award amount: ($87,225.00). Investigator/s Mary Hall Reno (Principal Investigator). Contact, Jeffrey Weld, Director of Iowa Math and Science Education Partnership (IMSEP)

Jan 2009 - Dec 2011 *Committee on the Status of Women in Physics, APS*
Funded by Elsevier Foundation New Scholars Grant. Award amount: ($15,000.00). to help support childcare expenses of APS meeting attendees.

Jan 2004 - Dec 2006 *REU Site: Undergraduate research in physics and astronomy at the University of Iowa*
Funded by National Science Foundation. Award amount: ($217,613.00). Investigator Mary Hall Reno (Principal Investigator).

Jan 1991 - Dec 2002 *NSF Funding (4 grants) in theoretical high energy particle physics*
Funded by National Science Foundation. Total award amount: ($233,500). Investigator Mary Hall Reno (Principal Investigator).

Jan 1997 - Jun 1997 *Muons and Neutrinos from atmospheric charmed particle production*
Funded by CIFRE/University of Iowa. Award amount: ($8,280.00). Investigator Mary Hall Reno (Principal Investigator). CIFRE Award

Jun 1991 - Aug 1991 *An assessment of the feasibility of a measurement of the W magnetic moment at the Tevatron Collider*
Funded by Old Gold Summer Fellowship/University of Iowa. Award amount: ($3,500.00). Investigator Mary Hall Reno (Principal Investigator).

Invited Lectures and Conference Presentations (Selected)

Colloquia (Selected)

Department

2019 *High energy atmospheric neutrinos: connections between laboratory experiments and cosmic rays*, Brookhaven National Laboratory, Upton, New York Presenters/Authors: Reno, Mary Hall

2018 *Atmospheric neutrinos: connections between laboratory experiments and cosmic rays*, Physics Department, Kansas State University, Manhattan, Kansas Presenters/Authors: Reno, Mary Hall

2017 *Atmospheric neutrinos: connections between laboratory experiments and cosmic rays*, Illinois State University, Bloomington, Illinois Presenters/Authors: Reno, Mary Hall

2014 University of Arizona Colloquium, *Ultrahigh energy neutrinos, what can we learn?*, Arizona

University

2010 *Neutrinos, nature's messengers*, University of Arizona Department and ADVANCE Program, Arizona

Seminars (Selected)

Department

2019 *Atmospheric neutrinos: connections between laboratory experiments and cosmic rays*, Grinnell College, Grinnell, Iowa Presenters/Authors: Reno, Mary Hall

2019 Nuclear and Particle Physics Seminar, *High energy atmospheric neutrinos: connections between laboratory experiments and cosmic rays*, University of Iowa, Iowa City, Iowa Presenters/Authors: Reno, Mary Hall

2019 *Prompt neutrinos from charm: atmospheric and beam dump fluxes*, University of California, Riverside, Riverside, California Presenters/Authors: Reno, Mary Hall

2018 Nuclear and Particle Physics Seminar, *Astroparticle Physics: tau neutrinos and air showers*, University of Iowa Presenters/Authors: Reno, Mary Hall

2017 *Prompt neutrinos from charm: atmospheric and beam dump fluxes*, University of Granada, Granada, Spain Presenters/Authors: Reno, Mary Hall

2016 *Neutrinos in cosmology*, University of Iowa, Iowa City, Iowa

2016 *Prompt neutrinos from charm: atmospheric and beam dump fluxes*, Michigan State University, East Lansing, Michigan Presenters/Authors: Reno, Mary Hall

2016 *Prompt neutrinos from charm: atmospheric and beam dump fluxes*, Virginia Tech Joint Theoretical/Experimental Particle and Nuclear Seminar, *Neutrino fluxes from astrophysical and laboratory beams*, University of Iowa, Iowa City, Iowa, United States Presenters/Authors: Reno, Mary Hall

1990-2015 23 seminars at the University of Iowa

1990-2015 30 seminars at the University of Arizona, Argonne National Laboratory, Universite de Paris VII, Penn State University, University of Florida, Grinnell College, Fermi National Accelerator Laboratory, Iowa State University, Johns Hopkins University, University of Kansas, University of Hawaii, University of Wisconsin, Kansas State University, Southern Methodist University, Brookhaven National Laboratory, University of Kansas, Florida State University, Universite Catholique Louvain-la-Neuve

Graduate school lectures (2 lectures)

International

2009 *Sources, propagation and detection of ultra-high energy neutrinos I and II*, Harish-Chandra Institute, Allahabad, India

Invited Lecture

Local

2015 Intellectual Dialogue Society Lunch Series, *Understanding the Nobel Prize in Physics: Neutrinos Underground*, Intellectual Dialogue Society, Iowa City, Iowa, United States Presenters/Authors: Reno, Mary Hall

2011 Cafe Scientifique, *Neutrinos - faster than the speed of light?*, Iowa

2004 Public Lecture, *Neutrinos: messengers from the biggest explosions in the Universe*, Department of Physics and Astronomy, Iowa

Keynote/Plenary Address

Local

2014 Sonia Kovalevsky Day, *Math, Physics, Emmy Noether and Me*, University of Iowa

Oral Conference and Workshop Presentations

International

2019 Perspectives in Astroparticle physics from High Energy Neutrinos (PAHEN 2019), *Atmospheric neutrino background*, Humboldt-Universität zu Berlin, Berlin, Germany Presenters/Authors: Reno, Mary Hall

2019 International Cosmic Ray Conference 2019, *A new calculation of Earth-skimming very- and ultra-high energy tau neutrinos*, International Union of Pure and Applied Physics & University of Wisconsin, Madison, Wisconsin Presenters/Authors: Reno, Mary Hall

2019 APS April Meeting, *Earth-skimming tau neutrinos: air Cherenkov signals from tau*

decays, American Physical Society, Denver, Colorado Presenters/Authors: Reno, Mary Hall, POEMMA Collaboration

2018 NuFact 2018: 20th workshop on neutrinos from accelerators, *Probing secret interactions of eV-scale sterile neutrinos with the diffuse supernova neutrino background*, Virginia Tech, Blacksburg, Virginia, United States Presenters/Authors: Reno, Mary Hall

2018 15th Workshop on Non-Perturbative QCD, *Prompt neutrinos from charm: atmospheric and beam dump fluxes*, l'Institut d'Astrophysique de Paris & Brown University, Paris, France Presenters/Authors: Reno, Mary Hall

2018 April Meeting, *Tau neutrino signals at POEMMA*, American Physical Society, Columbus, Ohio Presenters/Authors: Reno, Mary Hall

2017 TeV Particle Astrophysics TeVPA 2017, *Atmospheric neutrino fluxes and prompt neutrinos from heavy flavor*, Ohio State University, Columbus, Ohio Presenters/Authors: Reno, Mary Hall

2017 IceCube Particle Astrophysics Symposium, IPA 2017, *Prompt atmospheric neutrino flux predictions: QCD models and nuclear effects*, IceCube Collaboration, University of Wisconsin, Madison, Wisconsin Presenters/Authors: Reno, Mary Hall, Bhattacharya, Atri, Enberg, Rikard, Kim, C.S., Jeong, Yu Seon, Sarcevic, Ina, Stasto, Anna

2016 American Physical Society April Meeting, *Astrophysical neutrino cross sections*, American Physical Society, Salt Lake City, Utah, United States Presenters/Authors: Reno, Mary Hall Invited talk, part of an invited session on "Neutrino cross sections with nuclei".

2015 INT program on Neutrino Astrophysics and Fundamental Properties, *Prompt neutrinos and charm in the light of RHIC and the LHC*, University of Washington, Seattle, Washington, United States Presenters/Authors: Reno, Mary Hall

2015 IceCube Particle Astrophysics Symposium, *Atmospheric neutrinos from perturbative charm production and decay*, University of Wisconsin, Madison, Wisconsin, United States Presenters/Authors: Reno, Mary Hall

2015 American Physical Society April Meeting, *Atmospheric charm: perturbative production and IceCube neutrino backgrounds*, American Physical Society, Baltimore, Maryland, United States Presenters/Authors: Reno, Mary Hall

2014 Kavli Institute for Theoretical Physics, Neutrinos 2014 program, *Charm decays and IceCube data* Presenters/Authors: Sarcevice, I, Reno, Mary Hall

2014 Nordita Workshop, News in Neutrino Physics, *Atmospheric neutrinos and leptons from charm*, Stockholm, Sweden

2014 7th International Workshop on Very High Energy Particle Astronomy, VHEPA14,, *Neutrino connection with cosmic ray origin*, Tokyo, Japan

2014 Cosmic Messages in Ghostly Bottles: Astrophysical Neutrino Sources and Identification, *Neutrino from charm*, Ohio State University Center for Cosmology and AstroParticle Physics

2013 Aspen Center for Physics, *Ultrahigh energy neutrinos: what we know and what we don't know*

2013 IceCube Particle Astrophysics Symposium, *Atmospheric lepton fluxes at high energies*, Madison, Wisconsin, United States

2013 April APS Meeting, *Neutron star constraints on asymmetric bosonic dark matter*, Denver, Colorado, United States

2013 Cosmic Frontier, *The Moon as a Detector for Extreme-Energy Cosmic Rays*, SLAC, Stanford, California, United States

2012 Miami 2012, *Muons and neutrinos from atmospheric charm, theoretical consideration*, Ft. Lauderdale, Florida, United States

2012 Eleventh Conference on the Intersections of Particle and Nuclear Physics, *Prompt leptons from atmospheric charm production*, St. Petersburg, Florida, United States

2011 Eleventh Workshop on Non-Perturbative QCD, *Neutrinos from charm production: atmospheric and astrophysical applications*, l'Institute d'Astrophysique de Paris, Paris, France

2010 ICATPP Conference on Cosmic Rays for Particle and Astroparticle Physics, *Neutrinos from dark matter*, Villa Olmo, Como, Italy

2010 Low-Energy Neutrino Workshop, *Neutrino cross sections at 5-50 GeV*, Pennsylvania State University

2010 Novel Searches for Dark Matter 2010 Workshop, *Neutrino signals of dark matter in the galactic center*, CCAP, Ohio State University

2009 Minute Particulars and Hidden Symmetries, *Ultrahigh-energy neutrinos*, Fermi National Accelerator Laboratory

2009 International Workshop on Next Generation Nucleon Decay and Neutrino Detectors, *Very high energy astrophysical neutrinos*, Estes Park, Colorado

2009 Neutrino physics on Earth, in the Stars and in the cosmos, *High energy neutrinos*, Aspen Center for Physics

2009 Third International Workshop on Interconnections Between Particle Physics and Cosmology, *Astrophysical neutrinos*, University of Oklahoma

2009 Nu HoRIzons 09, Neutrinos in Physics, Astrophysics and Cosmology, *Neutrino nucleon cross sections: from GeV to ZeV*, Harish-Chandra Institute, Allahabad, India

2007 Ultrahigh energy cosmic rays, neutrinos and photons workshop, *Ultrahigh energy neutrino propagation effects in astrophysical sources*, Pennsylvania State University

2006 Miami 2006, *Quasi-stable particle energy loss: implications for neutrino telescopes*

2006 2nd Workshop on TeV Particle Astrophysics, *Weak interactions and quasi-stable particle energy loss*, University of Wisconsin

2006 PHENO 2006 Symposium, *Electromagnetic structure functions and neutrino nucleon scattering*, University of Wisconsin

2006 Workshop on Intersections of Nuclear Physics with Neutrinos and Electrons, *Low energy neutrino cross sections*, Jefferson National Laboratory

2005 Parton Structure of Hadrons, *Electromagnetic structure functions and neutrino-nucleon scattering*, ECT*, European Center for Theoretical Studies in Nuclear Physics and Related Areas, Trento, Italy

2005 American Physical Society April Meeting, *Ultrahigh energy tau neutrinos: propagation and tau energy loss*, American Physical Society, Tampa, Florida

2004 13th International Symposium on Very High Energy Cosmic Rays, *Neutrino cross sections at HERA and beyond*, Pylos, Greece

2004 8th Workshop on Nonperturbative QCD, *Deep inelastic neutrino interactions*, l'Institute d'Astrophysique de Paris, Paris, France

2004 21st International Conference on Neutrino Physics and Astrophysics (Neutrino 2004), *High energy neutrino cross sections*, Paris, France

2004 3rd International Workshop on Neutrino Nucleus Interactiosn in the Few GeV Region (NUINT04), *Sigma(DIS,nu N), NLO perturbative QCD and O(1 GeV) mass corrections*, Gran Sasso Laboratory, Assergi, Italy

2003 Week Interactions and Neutrinos, *QCD Corrections to Neutrino Cross Sections*, Lake Geneva, Wisconsin

2002 Neutrinos and Implications for Physics Beyond the Standard Model, *Ultrahigh energy neutrinos*, Stony Brook, New York

2002 High Energy Neutrinos: Sources and Fluxes Workshop, *Neutrino interactions with matter*, Les Houches School and Workshop on Neutrino Particle Astrophysics, Les Houches, France

2001 Coral Gables Conference on Cosmology and Elementary Particle Physics, *High energy tau neutrinos*, Ft. Lauderdale, Florida

2001 Snowmass 2001, The Future of Particle Physics, *Ultrahigh energy neutrinos, small x and unitarity*, Snowmass, Colorado

2000 Neutrinos with Mass Workshop, *Upward tau neutrinos*, Aspen Center for Physics, Aspen, Colorado

1999 26th International Cosmic Ray Conference, *Neutrinos and muons from atmospheric charm*, Salt Lake City, Utah

1998 Neutrino Physics and Astrophysics: from Solar to Ultrahigh Energy Neutrinos, *Lepton fluxes from atmospheric charm*, Aspen Center for Physics

1998 1998 Aspen Winter Conference on Particle Physics, *Ultrahigh energy neutrinos*, Aspen, Colorado
1997 5th International Workshop on Topics in Astroparticle and Underground Physics, *Muon and muon neutrino fluxes from atmospheric charm*, Gran Sasso, Italy
1996 D0 QCD Workshop, *K_T effects in direct photon production*, Michigan State University
1996 Snowmass Workshop, *Z polarization in Higgs boson signals at the LHC*, Snowmass, Colorado
1996 The Interface between Soft and Hard QCD, *Direct photons in next-to-leading order QCD*, Aspen Center for Physics
1994 DPF'94, Eighth Meeting of the Division of Particles and Fields, *Z polarization in pp to ZZ to l l nu nubar at the LHC*, American Physical Society, Albuquerque, New Mexico
1994 Physics Doesn't Stop, Recent Developments in Phenomenology, *Low pT W's and Z's*, University of Wisconsin, Madison, Wisconsin
1992 Workshop on High Energy Neutrino Astrophysics, *The total neutrino cross section at very high energies*, University of Hawaii, Honolulu, Hawaii
1991 Joint International Lepton-Photon Symposium and Europhysics Conference on High Energy Physics, *Complete O(as) calculation of W production with parton showering*, Geneva, Switzerland
1990 Beyond the Standard Model II: International Conference on High Energy Physics, *Observables from p-pbar -> WX -> e nu X beyond leading order*, Norman, Oklahoma

National

2017 POEMMA Kickoff Meeting, *Upgoing Tau Neutrinos*, KICP Workshop, University of Chicago, Chicago, Illinois Presenters/Authors: Reno, Mary Hall

Regional

2007 Midwest Theory Conference, *Neutrino cross sections at low energy: estimates from electromagnetic structure functions*, University of Kansas

Summer School Lectures

International

2016 International Neutrino Summer School, *Neutrinos in astrophysics*, 12th Rencontres du Vietnam, Quy Nhon, Vietnam Presenters/Authors: Reno, Mary Hall
2016 International Neutrino Summer School, *Neutrinos in cosmology*, 12th Rencontres du Vietnam, Quy Nhon, Vietnam Presenters/Authors: Reno, Mary Hall

Summer school lectures (5 lectures)

National

2007 22nd Annual Hampton University Studies Program, *Structure Functions: Perturbation Theory and Beyond*, Jefferson National Laboratory, Newport News, Virginia

SERVICE

Profession

1990 - Present Journal Referee, Physical Review D, Physical Review Letters, Journal of High Energy Physics, Astroparticle Physics, European Physical Journal C, Journal of Cosmology and Astroparticle Physics, Journal of Physics G
2020 International Advisory Committee, Neutrino 2020, Member
2019 Deutsche Forschungsgemeinschaft, Reviewer, Grant Proposals, 1 mail-in review in 2016, 1 mail-in review in 2019
2019 FNRS, Belgium, Reviewer, Grant Proposals
2019 National Science Foundation, Expert Panel
2011 - 2018 Promotion review, external letters, Reviewer
2018 Ohio State University - Department of Physics, Academic Program Review, Member, Department of Physics
2017 American Physical Society, CSWP site visit to University of California, Irvine physics department, Chair
2017 Rencontres du Vietnam/VietNus 2017, Workshop Organizing Committee, Convener, High Energy Neutrinos Working Group

2017	Auburn University - Department of Physics, Academic Program Review, Chair
2016	American Physical Society, CSWP site visit to Syracuse University physics department, Member
2015 - 2016	American Physical Society/American Association of Physics Teachers Conference for Department Chairs, Steering Committee
2011 - 2016	Department of Energy, Reviewer, Grant Proposals, 3 mail-in reviews 3 mail-in reviews in 2016
2003 - 2016	National Science Foundation, Reviewer, Grant Proposals, 3 mail-in reviews 1 mail-in review in 2016
2015	American Physical Society, CSWP site visit to Colorado School of Mines physics department, Member, Colorado School of Mines
2015	National Science Foundation, Expert Panel, Graduate Research Fellowship Program
2014	Department of Energy, Expert Panel
2014	National Science Foundation, Expert Panel, GRFP
2014	Office of Science Graduate Student Research (SCGSR), Department of Energy, Reviewer, Grant Proposals
2013 - 2014	American Physics Society/American Association of Physics Teachers Meeting of Department Chairs, Steering Committee
2011 - 2014	Promotion and Tenure Review, Member
2013	American Physical Society, CSWP site visit to Ohio State University physics department, Member
2012	American Physical Society, CSWP site visit to Yale University physics department, Team Leader
2009 - 2012	Iowa Mathematics and Science Education Partnership (IMSEP), Executive Board, Member
2012	Statewide Articulation Conference, Liaison Advisory Committee on Transfer Students (LACTS), Member
2011	American Physical Society, Nominating Committee, Division of Particles and Fields
2011	Department of Energy, Expert Panel
2011	National Science Foundation, Expert Panel, GRFP
2009 - 2011	American Physical Society, Selection Committee for the M Hildred Blewett Award, Member
2010	American Physical Society, CSWP site visit to University of Utah physics department, Member
2010	CONICET - Chile, Reviewer, Grant Proposals
2009	American Physical Society, CSWP program committee for April Meeting of the APS, Chair
2009	American Physical Society, CSWP site visit to University of Oregon physics department, Member
2007 - 2009	American Physical Society, Committee on the Status of Women in Physics, Member (2007), Vice-Chair (2008), Chair (2009)
2008	American Physical Society, Selection Committee for the Katherine Weimer Award, Member
2008	National Science Foundation, Expert Panel, GRFP
2007	National Science Foundation, Expert Panel, GRFP
2005	National Science Foundation, Expert Panel, GRFP
2004 - 2005	American Physical Society, Nominating Committee, Division of Particles and Fields
2000 - 2001	Addison Wesley Longman (Books), Reviewer, Publications
2000	Aspen Center for Physics Workshop: Neutrinos with Masses and Oscillations, Co-Organizer

Department

2019 – present	Ad-hoc Committee for Strategic Planning/Departmental Self-Study, Chair
2019 – present	Undergraduate Affairs and Curriculum Committee, Member
2017 - 2019	Education and Operations Committee, Chair
2018	Promotion Committee, Chair
2018	Info Session - Applying to Graduate School, Discussant, Physics and Astronomy
2017	Promotion and Tenure Committee, Member, Scott Baalrud
2016 - 2017	Search Committee - Space Science Instrumentalist, Member
2015 - 2017	Recruitment and Admissions Committee, Member (2016) and Chair (2017)
2015	Post-tenure Review Committee, Member
2014 - 2015	Education and Operations Committee, Member

2007 - 2010	Living Learning Community on Explorations in Science, Math and Computing, Physics and Astronomy departmental coordinator
2006 - 2009	Education and Operations Committee, Ex Officio Member
2006 - 2009	Executive Committee, Member
2008	Post-tenure Review Committee, Member
2004 - 2006	Executive Committee, Chair
2004 - 2006	Research Experiences for Undergraduates, Director
2002 - 2003	Promotion and Tenure Committee, Member
2000	Ad-hoc Committee for Departmental Self Study, Member
1998 - 2000	Executive Committee, Member
1998 – 1999	Ad-hoc Committee for Initiatives for Departmental Improvement, Chair
1998	Administrative Associate Search Committee, Member
1995 - 1997	Education and Operations Committee, Member
1992 - 1995	Graduate Students Admissions Committee, Member
1991 - 1994	Policy, Planning and Budget Committee, Member
1991 - 2006	Faculty Search Committee (7 searches: astronomy, laser science, space physics), Member

College

2017 - Present	CLAS - Executive Committee, Member
2020	CLAS - Collegiate Consulting Group, Member
2016	CLAS - Career Development Awards Committee, Member
2013	ADVANCE program proposal Ad-Hoc Committee, Member
2013	CLAS Open House, Member
2013	IBA posters at the 8th Annual Summer Undergraduate Research Conference, Judge
2013	Associate Director for the Center for Teaching Search Committee, Member
2011 - 2012	Review the WISE Program Ad-hoc Committee, Member
2010 - 2012	Presidential Scholarship Selection Committee, Member
2012	CLAS Open House, Member
2012	Hawkeye Caucus Day at the Capitol, Member, departmental representative with Dale Stille and Tyler Kent
2008 - 2011	CLAS - Executive Committee, Member
2008 - 2009	Student Success Team: Committee on Student Academic Engagement, Member
2006 - 2009	CLAS - Scholarship Committee, Member
2002 - 2005	CLAS - Admissions Committee (Advisory), Member
2004	CLAS - Ad-hoc Committee for Undergraduate Student Commencement Speaker Selection, Member
1999 - 2001	CLAS - Advisory Committee in Physical and Mathematical Sciences, Member (99-00), Convener (00-01)
1996 - 1997	CLAS - Advisory Committee in Physical and Mathematical Sciences, Member
1995 - 1997	CLAS - Historical Perspectives Coordinating Committee/Historical Perspectives General Education Area Committee, Member

University

2018	Program Review, Applied Mathematical and Computational Sciences, Member
2016 - 2018	Center for Integration of Research, Teaching and Learning (CIRTL) Steering Committee, Member
2016 - 2017	CLAS Decanal Review Committee, Member
2013 - 2017	4CAST Discussion facilitator
2016	Iowa Biosciences Academy, Interviewer, candidate to scholar process
2015 - 2016	Early Career Faculty Academy, Center for Teaching, Mentor
2015 - 2016	Sloan Center, Director for Physics and Astronomy
2016	UI GRFP Workshop (Graduate College), Consultant
2015	Iowa Biosciences Academy, Interviewer, candidate to scholar process
2014 - 2015	University Awards Committee, Member
2014, 2015	UI GRFP Workshop (Graduate College), Expert Panel
2012	WISE Grad/Post-Doc Professional Development Workshop, Negotiating your first tenure-track

	faculty position in the sciences and engineering, Expert Panel
2011	"On Iowa!" student interviews, Interviewer
2009	Five Year Review of the Dean of the College of Education, Member
2007 - 2008	Student Success Team: Early Intervention Task Force, Member
2006 - 2007	NCA Self-Study Subcommittee on Entry and Transition, Member
2004 - 2006	Obermann Center Advisory Committee, Member
2002 - 2005	Faculty Senate, Member
1998 - 2002	Women in Science and Engineering (WISE), Program Faculty (99-02), Advisory Board (98-99), WISE Director Search (98)

Community

2015	State Fair - Mobile Museum, Volunteer
2012	Hawk Eyes on Science - Lincoln Elementary School, Presenter, Magnets and Motors, Lincoln Elementary School
2010	Hawk Eyes on Science - Lincoln Elementary School, Presenter, Sound Demonstrations, with Yannick Meurice, Lincoln Elementary School
2008	Hawk Eyes on Science - Lincoln Elementary School, Presenter, Sound Demonstrations, with Yannick Meurice, Lincoln Elementary School
2006	Hawk Eyes on Science - Lincoln Elementary School, Presenter, Learning at Lunch, with Yannick Meurice, Lincoln Elementary School (4 presentations)
2005	Hawk Eyes on Science - Lincoln Elementary School, Presenter, Learning at Lunch, with Yannick Meurice, Lincoln Elementary School (2 presentations)
2002	Grant Wood AEA, Physics Olympics, Judge
2000	Hawk Eyes on Science - Roosevelt Elementary School, Presenter, "Magnets and Motors," with Yannick Meurice, Roosevelt Elementary School

Media Contributions

2004	Radio, Iowa Public Radio, State Call-in Show: Talk of Iowa