Professor Constantinos (Costas) Andreopoulos, *FHEA*

University of Liverpool
Faculty of Science and Engineering
School of Physical Sciences
Department of Physics
Oxford Street, Liverpool L69 7ZE, UK
(Office: Oliver Lodge Laboratory 316)

UK Research and Innovation (UKRI)
Science and Technology Facilities Council (STFC)
Rutherford Appleton Laboratory (RAL)
Particle Physics Department (PPD)
Harwell Oxford Campus
Oxfordshire OX11 0QX, UK
(Office: R1, 1.67)

Home Page: http://costas.andreopoulos.eu
E-Mail: constantinos.andreopoulos @ cern.ch

Mobile: +44-(0)7540-847333
Liverpool: +44-(0)1517-943201
RAL: +44-(0)1235-445091

BAI ID: C.Andreopoulos.1
INSPIRE ID: INSPIRE-00062140
ORCID ID: 0000-0003-2020-8215
arXiv ID: andreopoulos_c_1

July 21, 2022

Academic appointments

- **12/2018 - present, Chair of Experimental Particle Physics**
  Department of Physics, University of Liverpool
- 06/2014 - 12/2018, Reader (Associate Professor)
  Department of Physics, University of Liverpool
- **02/2007 - present, Staff Scientist**
  Particle Physics Department, Rutherford Appleton Laboratory, Science & Technology Facilities Council
- 06/2003 - 01/2007, Post-Doctoral Research Associate
  Particle Physics Department, Rutherford Appleton Laboratory, Science & Technology Facilities Council
- 09/1996 - 06/2003, Graduate Research Assistant
  Physics Department, National and Kapodistrian University of Athens

Education

- 03/1999 - 06/2003, **PhD** (Physics)
  National and Kapodistrian University of Athens
  Thesis: '*Experimental Study of the Phenomenon of Neutrino Oscillations with the MINOS Experiment*', UA/PHYS/HEP/02-06-2003; FERMILAB-THESIS-2003-39 (in Greek). Advisor: Prof. George Tzanakos
- 09/1996 - 11/1998, **MSc** (Nuclear and Particle Physics)
  National and Kapodistrian University of Athens
  Thesis: '*Calibration of a Prototype Electromagnetic Calorimeter for the COSMOS $\nu_\mu \leftrightarrow \nu_\tau$ Neutrino Oscillation Experiment*', UA/PHYS/HEP/13-11-1998 (in Greek). Advisor: Prof. George Tzanakos
- 09/1992 - 09/1996, **BSc** (Physics)
  National and Kapodistrian University of Athens

Leadership

- 2021-present, Liverpool SBN and SBND PI.
- 2020-present, Member of the SBND Executive Committee.
- 2018-2022, SBN Systematics and Oscillation Sensitivities WG Co-Coordinator.
- 2017-present, SBND Physics and Analysis Tool Co-Coordinator.
- 2015-2017, DUNE Near Detector Evaluation WG Coordinator.
- 2014-2019, DUNE-UK WP.1 (Physics Simulation and Experiment Design) Coordinator.
- 2014-2015, Member of the T2K Analysis Steering Group.
- 2010-present, Coordinator of the VALOR Fitting Group.
- 2014-present, co-Spokesperson of the GENIE Collaboration.
- 2014-present, Member of the GENIE Executive Board.
- 2014-present, GENIE Tuning and Systematics WG Coordinator.
- 2006-2010, MINOS Physics Simulation WG Co-Coordinator.

Professional Service

Project

- 2013 - 2021, Budget holder for T2K-UK STFC project.

Departmental

- 2019 - present, Particle Physics Seminar Series co-Organizer, Physics Dept., University of Liverpool.
- 2018 - 2022, Equality and Diversity Deputy Director, Physics Dept., University of Liverpool.
- 2014 - 2017, Member of the Departmental Research Excellence Framework (REF) Coordination Committee, Physics Dept., University of Liverpool.

PhD examinations

- 2021, Internal PhD examiner for Alex Byrnes, University of Liverpool.
- 2019, External PhD examiner for Colton Hill, University of Manchester.
- 2019, Internal PhD examiner for James Hunt, University of Liverpool.
- 2016, Examination panel member for first-year PhD students, University of Liverpool.
- 2015, Internal PhD examiner for Thomas Stainer, University of Liverpool.

Reviewing and editorial roles

- Referee for Europhysics Letters, European Physical Journal Plus, Advances in High Energy Physics, Nuclear Instruments & Methods in Physics Research A, Particle Data Group.
- 2018, Proposal Reviewer, Research Foundation - Flanders, Belgium.
- 2014 - present, Proposal Reviewer, National Science Center, Poland.
- 2020 - present, Reviewer, STFC Ernest Rutherford Fellowship.

Conference and school organization

- 2016, Member of the Scientific Organizing Committee, PHYSTAT-ν workshop, Fermilab, September 19-21.
- 2016, Chair, International Workshop on Global Fits to Neutrino Scattering Data and Generator Tuning (NuTune2016), Liverpool, July 11-15.
- 2015, Member of the Organizing Committee, NuSTEC Training in Neutrino Nucleus Scattering Physics, Okayama University, November 8-14.

- 2014, Member of the Organizing Committee, NuSTEC Training in Neutrino Nucleus Scattering Physics, Fermilab, October 16-27.
- 2014, Member of the Scientific Programme Committee, NuINT14 workshop, London, May 19-24 (co-Organized 'Neutrino Interaction Systematics for Oscillation Experiments' session).
- 2014, Co-Chair of the Organizing Committee, NuSTEC MC Generator School, Liverpool, May 14-16.

Mentoring

- 2015 - present, Academic advisor for over 20 undergraduate students at the University of Liverpool.

Other

- 2018 - 2022, SBND Speakers Committee (Member, 2018 - 2019; Chair, 2019 - 2022).

Awards And Prizes

- 2016 - 17, 2015, 2009, Institute of Particle Physics Phenomenology (Durham Univ.) Associateship awards.
- 2016, Breakthrough Prize (shared - Daya Bay, KamLAND, SNO, T2K, K2K and SuperK Collaborations).
- 2011, Le Prix La Recherche award (shared - T2K Collaboration).
- 1999 - 2002, Greek National Scholarship Foundation (IKY) award.

Research Income

Research funding in the UK in centralized. My current research is funded predominantly by the Science and Technology Facilities Council (STFC) through a) research grants awarded to the T2K-UK, SBND-UK and DUNE-UK projects, b) a *Consolidated Grant* awarded to the Liverpool Particle Physics group, and c) support for in-house particle physics research programme at STFC's national laboratories and, in particular, at the Particle Physics Department of the Rutherford Appleton Laboratory.

Recent awards:

- 2022-2024, INTENSE MSCA-RISE: particle physics experiments at the high intensity frontier, from new physics to spin-offs. A cooperative Europe - United States - Japan effort, Liverpool PI.
- 2022-2025, Liverpool Particle Physics Consolidated Grant (£6.7M), Co-Investigator.
- 2019-2023, DUNE-UK production project (£1M at Liverpool), Co-Investigator.
- 2019-2022, Liverpool Particle Physics Consolidated Grant (£6.9M), Co-Investigator.
- 2018-2020, European Space Agency, Positrino: Positioning, Navigation and Timing using Neutrinos, Proposal in response to ESA AO/1-9535/18/NL/MP in collaboration with GMV Innovating Solutions Ltd. (Total award €200k, €82k at Liverpool), Liverpool PI.
- 2017-2019, DUNE-UK pre-construction phase (Total award £4.0M, £300k at Liverpool), WP1 Coordinator and Liverpool Co-Investigator.
- 2017, Liverpool Centre for Doctoral Training on Data Intensive Sciences, PhD project supervisor [Physics Simulations to Underpin Discoveries in the Neutrino Sector].
- 2015-2019, Liverpool Particle Physics Consolidated Grant (£6.8M), Co-Investigator.
- 2014-2018, LBNE and the Fermilab LAr Detector Programme: (Total award £2.5M, £160k at Liverpool), WP1 Coordinator.

Post-Doc Supervision

- 2019 - 2021, Dr. Christopher Barry (Liverpool).
- 2016 - present, Dr. Marco Roda (Liverpool).

  Roda's positions of responsibility:

  - 2018 - present: SBN Neutrino MC Generators WG co-Coordinator.
  - 2021 - present: SBND Calibration and Simulation WG co-Coordinator.
- 2016 - 2019, Dr. Steve Dennis (Liverpool).

  Dennis's positions of responsibility:

  - 2017 - 2019: DUNE-UK WP1.1 - Near Detector Constraints and Oscillation Sensitivity Coordinator.

Student Supervision

Postgraduate research

- 2021 - present, Supervising Ms. Bethany Slater, University of Liverpool, PhD candidate.
  Thesis (tentative): '*Neutrino Flux and Interaction Systematic Constraints for the SBN Sterile Neutrino Oscillation Search from a Joint Analysis of Exclusive Topological Event Samples on SBND and the Utilization of the SBND PRISM Capabilities.*'

- 2019 - present, Supervising Mr. Jaiden Parlone, University of Liverpool, PhD candidate.
  Thesis (tentative): '*Three-Flavour Neutrino and Antineutrino Oscillation Measurements at the T2K Experiment*'.

- 2018 - present, Supervising Mr. Thomas Frank Ham, University of Liverpool, PhD candidate.
  Thesis (tentative): '*Electron shower energy reconstruction in Liquid Argon Time Projection Chambers and Electron Neutrino Appearanec and Disappearance Studies the Fermilab Short Baseline Neutrino Program*'.

- 2017 - 2022, Supervised Dr. Julia Tena Vidal, University of Liverpool, PhD 2022.
  Thesis (tentative): '*Global Analysis of Muon-Neutrino Charged-Current Data for the Characterization and Tuning of Cross-Section and Hadronization Models in the GENIE Neutrino Event Generator*'.
  Recipient of the 2018 Leo Carrol (Liverpool HEP) award for outstanding post-graduate research.
  Present position: Post-Doctoral Research Associate at Tel Aviv University.

- 2017 - 2022, Supervised Dr. Jaggar Henzerling, University of Liverpool, PhD 2022.
  Thesis: '*Multi-plane Neutral Networks for Event Reconstruction in Liquid Argon Time Projection Chambers* '.
  Present position: Data Scientist at Peak AI.

- 2016 - 2021, Supervised Dr. Francis Bench, University of Liverpool, PhD 2021.
  Thesis: '*Study of Neutrino and Antineutrino Oscillations in the Three-Flavour PMNS Paradigm at the T2K Experiment: Determination of the CP-Violating Phase and the Search for $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ Oscillations*'.
  Recipient of the 2019 John G. Rutherglen memorial prize.
  Present position: Data Scientist at Eleven-i.

- 2016 - 2021, Co-supervised[1] Dr. Rhiannon Jones, University of Liverpool, PhD 2021.
  Thesis: '*Muon Neutrino Disappearance with Multiple Liquid Argon Time Projection Chambers in the Fermilab Booster Neutrino Beam*'.
  Present position: Post-Doctoral Research Associate at the University of Sheffield.

- 2014 - 2018, Supervised Dr. Christopher Barry, Univ. of Liverpool, PhD 2018.
  Thesis: '*Joint Analysis of Neutrino and Antineutrino Data from the T2K Experiment and Indications for Charge-Parity (CP) Violation*', T2K-THESIS-108.

- 2011 - 2015, Co-supervised[2] Dr. Steve Dennis, RAL & University of Warwick, PhD 2015.
  Thesis: '*Muon-Antineutrino Disappearance and Non-Standard Interactions at the T2K E*xperiment', T2K-THESIS-069.
  Present position: Post-Doctoral Research Associate at the University of Cambridge.

- 2011 - 2014, Co-supervised[3] Dr. Lorena Escudero Sanchez, CSIC and University of Valencia, PhD 2014.
  Thesis: '*Joint Analysis of Three Flavour Neutrino Oscillations Combining the Electron-Neutrino Appearance and Muon-Neutrino Disappearance Channels in the T2K Experiment*', T2K-THESIS-070.
  Recipient of the IFIC outstanding PhD thesis award.
  Present position: Post-Doctoral Research Associate at the University of Cambridge and Fellow of the Turing Institute.

- 2010 - 2014, Co-supervised[4] Dr. Thomas Dealtry, RAL & University of Oxford, PhD 2014.
  Thesis: '*Muon-Neutrino Disappearance with the T2K Beam*', T2K-THESIS-057.
  Present position: Post-Doctoral Research Associate at Lancaster University.

- 2008 - 2011, Co-supervised[5] Dr. James Dobson, Imperial College London, PhD 2012.
  Thesis: '*Neutrino-Induced Charged-Current π^+ Production at the T2K Near Detector*', T2K-THESIS-019
  Present position: STFC Ernest Rutherford fellow at Imperial College London.

Undergraduate research

[1] With Prof. Christos Touramanis, University of Liverpool.
[2] With Prof. Gary Barker and Prof. Steve Boyd, University of Warwick.
[3] With Dr. Anselmo Cervera, IFIC.
[4] With Prof. Alfons Weber, RAL & University of Oxford.
[5] With Prof. Yoshi Uchida, Imperial College London.

- 2019 - 2020, Mr. Jack Wells, University of Liverpool, MPHYS Project.
  Thesis: '*Deep Learning Applications in Neutrino Physics*'.
- 2019 - 2020, Mr. Alex Barat, University of Liverpool, BSc Project.
  Thesis: '*Investigation into the Possibility of Submarine Neutrino Communication*'.
- 2017 - 2018, Mr. Reece Shaw, University of Liverpool, MPHYS Project.
  Thesis: '*Deep Learning Techniques for Neutrino Event Reconstruction and Identification in SBND*'.
- 2017 - 2018, Mr. Josh Warren, University of Liverpool, MPHYS Project.
  Thesis: '*Deep Learning Techniques for Neutrino Event Reconstruction and Identification in SBND*'.
- 2016 - 2017, Mr. Jake Jackson, University of Liverpool, MPHYS Project.
  Thesis: '*Sensitivity of Sterile Neutrino Searches at the Fermilab Short Baseline Neutrino Programme*'.
- 2016 - 2017, Mr. Jack Ringwood, University of Liverpool, MPHYS Project.
  Thesis: '*Effects of Neutrino Interaction Uncertainties in Accelerator-Based Searches for Neutrino CP*V'.
- 2016 - 2017, Mr. Jonathan Stott, University of Liverpool, MPHYS Project.
  Thesis: '*Effects of Neutrino Interaction Uncertainties in Accelerator-Based Sterile Neutrino Searches*'.
- 2016 - 2017, Mr. James Taylor, University of Liverpool, MPHYS Project.
  Thesis: '*Statistical Issues in Precision Oscillation Measurements in Accelerator-Based Experiments*'.

Teaching

Higher Education teaching qualifications

- Fellow of the Higher Education Academy (FHEA). Skills, competences and professional practices were succesfully benchmarked against the criteria (Descriptor 2) of the UK Professional Standards Framework (UKPSF) for teaching and support of learning in Higher Education.

Undergraduate teaching experience

- 2014-2022, Module organiser and lecturer, PHYS 201 (Electromagnetism).
- 2015-20, Tutor, PHYS 480 (Advanced Quantum Physics).
- 2017-present, Tutor, PHYS 370 (Advanced Electromagnetism).
- 2016-present, Project supervisor, PHYS 498 (MPHYS Project) and PHYS 379 (BSc Project).
- 2014-present, Moderator and/or monitor for several modules.

Postgraduate research supervision experience

- 2008-present, Supervised 12 PhD theses (5 in progress, 7 completed). Please see above for details.

Postgraduate teaching experience

- 2019-present, Delivered postgraduate lectures in Neutrino Physics at the University of Liverpool.
- 2017, Lecturer (Simulation of Neutrino Interaction Physics), MCnet Summer School, Lund, Sweden.
- 2014, Tutor, UK High Energy Physics Summer School, University of Warwick.
- 2014, Lecturer, NuSTEC Neutrino Generator School, Liverpool.
- 2013, Tutor, UK High Energy Physics Summer School, University of Warwick.
- 2012, Tutor, UK High Energy Physics Summer School, Sommerville College, Oxford.
- 2009, Lecturer, 45th Karpacz Winter School in Theoretical Physics, Ladek-Zdroj, Poland.
- 2009, Lecturer, GENIE course, Fermilab.
- 2008, Lecturer, GENIE course, TRIUMF.
- 2007, Lecturer, GENIE course, Rutherford Appleton Lab.

Professional Affiliations

- 2018 - present, Fellow of the Higher Education Academy.
- 2010 - present, Member of Institute Of Physics (IOP).
- 2000 - present, Member of Hellenic Society for the Study of High Energy Physics (EESFYE).

Research Collaboration / Group Memberships

- 2014-present, DUNE (http://www.dunescience.org)
- 2014-present, SBND (http://sbn-nd.fnal.gov)
- 2007-2023, T2K (http://t2k-experiment.org)
- 2010-present, VALOR [**founder and coodinator**] (https://valor.pp.rl.ac.uk)
- 2002-present, GENIE [**founder and co-spokesperson**] (http://www.genie-mc.org)
- 1999-2010, MINOS
- 1997-2003, DONUT
- 1997-1998, COSMOS

Research Highlights

Main contributions to neutrino interaction phenomenology

- Founder and co-spokesperson of the international GENIE collaboration.
- Lead co-author of the GENIE framework, experimental interfaces and analysis-related tools, as well as of the GENIE neutrino, charged lepton and BSM event generator physics modules. Main author of Nucl.Instrum.Meth. A614 (2010) 87-104 (topcite 1000+). Contributed to novel phenomenological work, including the Andreopoulos-Gallagher-Kehayias-Yang (AGKY) neutrino-induced hadronization model published in Eur.Phys.J. C63 (2009) 1-10.
- As GENIE Systematics and Tuning coordinator (2014-present), I oversaw the development of an advanced analysis of neutrino scattering data and consolidated the dual role I envisioned for GENIE: an event generator group responsible for a leading open-source simulation, and a global fitting group focussing on the construction, characterization and tuning of state-of-the-art proprietary comprehensive interaction models published through its generator platform. I co-authored the first publications produced using the GENIE global analysis, including a cross-section model construction and tune in the resonance transition region published in Phys.Rev.D 104 (2021) 7, 072009 [*Tena-Vidal PhD*], a neutrino-induced hadronization model tune published in Phys.Rev.D 105 (2022) 1, 012009 [*Tena-Vidal PhD*], and a CC0π tune published in arXiv:2206.11050 [hep-ph] (submitted to Phys.Rev.D) [*Tena-Vidal PhD*].
- Organised the GENIE Incubator, through which GENIE provides an open platform and central coordination of community-wide generator development efforts, with over a hundred of contributors over the past few years.

Main contributions to the SBND Experiment and to the overall SBN project

- Member of the SBND Executive Board (2020-present)
- SBN Oscillation Sensitivity and Systematics WG co-Coordinator (2018-2022).
- SBND Physics co-Coordinator (2017-present).
- Development of ν_μ CC0π event selection on SBND based on automated event reconstruction [*Jones PhD*].
- Development of VALOR-based ν_μ disappearance analysis [*Jones PhD*].
- Development of VALOR-based ν_e (dis)appearance analyses [*Ham PhD*].
- Development of Deep Learning methods for cosmic background rejection and neutrino event characterization [*Henzerling PhD*].
- Chair of the Editorial Board for SBND paper on Cosmic Background Removal with Deep Neural Networks in SBND published in Frontiers in Artificial Intelligence, Vol 4 (2021), 42.
- Leading the development of the default SBN neutrino interaction physics simulation (GENIE).

Main contributions to the DUNE Experiment

- DUNE Near Detector Evaluation WG Coordinator (2015-2017).
- DUNE-UK WP.1 (Physics) co-Coordinator (2014-2019) in the period leading up to the publication of the DUNE Physics TDR and CD-2 approval.

- Led the development of an advanced VALOR-based joint 3-flavour oscillation and systematics constraint fit. This produced the first DUNE sensitiities incorporating simulated data from both Near and Far detectors, and informed the DUNE Near Detector task force report (2015).
- Leading the development of the default DUNE neutrino interaction physics simulation (GENIE).

Main contributions to the T2K Experiment

- Chair of the review committee of the first T2K Near detector ν_e disappearance (sterile) analysis (2013).
- Member of the ν_μ disappearance contour (statistics) committee (2011).
- Member of the paper committee for the first T2K Near detector ν_e disappearance paper (2014) published in Phys.Rev. D91 (2015) 051102.
- Member of the paper committee for the first T2K ν_μ disappearance paper (2011) published in PRD 85:031103 (2012).
- Both through personal analysis efforts and coordination of the VALOR fitting group, I delivered many official T2K oscillation analysis results:
  - Performed ν_μ-disappearance analyses of the T2K Run 1, Run 1-2, Run 1-3 and Run 1-4 [*Dealtry PhD*] datasets. The Run 1-2 result, published in PRD 85:031103 (2012), is the first ever published study of ν_μ-disappearance in an off-axis experiment. The subsequent results published in PRL 111:211803 (2013) and PRL 112:181801 (2014) were, at the time of publication, the world's most stringent constraint on the ν_μ-disappearance parameters.
  - Performed the first T2K full 3-flavour oscillation analysis by combining the ν_μ-disappearance and ν_e-appearance analyses and performing a simultaneous measurement of Δm^2_{32}, θ_{23}, θ_{13} and δ_{CP}. Full 3-flavour oscillation analyses were performed with the Run 1-3 and Run 1-4 datasets [*Escudero PhD*]. Our Run 1-4 results were published in PRD 91:072010 (2015).
  - Performed the first T2K $\bar{\nu}_\mu$-disappearance analysis with Run 5-6 data [*Dennis PhD*]. This result was published in PRL 116:181801 (2016).
  - Performed a 3-flavour oscillation analysis combining all neutrino and antineutrino event samples with Run 1-8 data [*Barry PhD*]. This work, published in Phys.Rev. D96 (2017) no.9, 092006 and Phys. Rev. Lett. 121, 171802 (2018), produced first hints for leptonic CP violation.
  - Performed the first T2K $\bar{\nu}_e$-appearance analysis with Run 1-9 data [*Bench PhD*], published in Phys. Rev. Lett. 124, 161802 (2020).
  - Performed the 3-flavour oscillation analysis combining all neutrino and antineutrino event samples with Run 1-9 data [*Bench PhD*], published in Nature 580, 3390344 (2020) and Phys. Rev. D 103, 112008 (2021), as well as as statistics update with Run 1-10 data [*Bench PhD*]. These analyses produced the first strong indication for leptonic CP violation.
- Measured the rate of charged-current π^+ production in the T2K off-axis near detector [*Dobson PhD*].
- Developed event generation applications integrating the GENIE simulation engine with the JPARC neutrino beam-line simulations and T2K detector geometry descriptions.
- Developed methods for propagating neutrino interaction physics uncertainties in T2K physics analyses.
- Designed, prototyped, developed and commissioned the light-injection DAQ control software for the T2K off-axis near detector electromagnetic calorimeters.

Main contributions to the MINOS Experiment

- Physics Simulations Working Group co-convener (2006 - 2010): Made major intellectual contributions on the physics model and uncertainty evaluations used for all published MINOS results.
- Assembly and commissioning of Fully-Automated Stations (at Athens and UTA) for the Hamamatsu M16 multi-anode photo-multipliers (PMTs) used at the MINOS Far detector. Was responsible for the operation of the Athens Station and the full characterization of the PMTs tested there. Between November 2001 and December 2002, I tested and characterized almost half of all Far detector PMTs.
- Commissioning and data-taking operations of the MINOS 4 Plane Prototype (4PP), the first full integration of all MINOS Far detector sub-systems at Fermilab (June - August 2000). Developed all offline software, analyzed the cosmic-ray and light-injection data, calibrated the prototype detector and characterized the prototype performance.
- Assembly and commissioning of the MINOS far detector in Soudan mine (September - December 2002).

Main contributions to the DONUT Experiment

- Participation in the data-taking operations (July - October 1997).
- Calibration of the electromagnetic calorimeter.

Main contributions to the COSMOS Experiment

- Exposure of a prototype electromagnetic calorimeter at a Fermilab test-beam (July - October 1997).
- Calibration of a prototype electromagnetic calorimeter.

Presentations at Workshops, Conferences, Seminars

International Physics Workshops, Symposia and Conferences

- 'GENIE Status Update', Neutrino–Nucleus Interactions in the Standard Model and Beyond, 17-21 January 2022, CERN.
- 'Systematics: The Neutrino Experiment Experience' (Invited talk), PHYSTAT-\nu 2019, 22-25 January 2019, CERN.
- 'GENIE Status and Prospects' (Invited talk), H2020 Oscillation Physics Workshop, 28-29 November 2018, Valencia, Spain.
- 'The AGKY Hadronization Model' (Invited talk), NuSTEC Workshop on Shallow- and Deep-Inelastic Scattering, 11-13 October 2018, Gran Sasso Science Institute (GSSI), L'Aquila, Italy.
- 'Simulations of Neutrino Interaction Physics', MCnet Monte Carlo School, 2-7 July 2017, Lund, Sweden
- 'The Short-Baseline Neutrino Detector (SBND)' (Invited talk), 11th International Workshop on Neutrino-Nucleus Interactions (NuINT17), 25-30 June 2017, Toronto, Canada.
- 'Neutrino-Nucleus Interaction Cross-Sections' (Invited talk), Conference on Science at the Sanford Underground Research Facility (CoSSURF) 2017, 12-16 May 2017, Rapid City, SD, USA.
- 'The VALOR Oscillation Analysis in T2K/HK, DUNE and SBN' (Invited talk), Topical Meeting on Neutrino-Nucleus Scattering, 18-20 April 2017, Durham, UK.
- 'Neutrino-Nucleus Interaction Measurements at the few-GeV Energy Scale: Relevance, Present Status and Future Prospects' (Invited Talk), 25th International Workshop on Deep Inelastic Scattering and Related Topics (DIS17), 3-7 April 2017, Birmingham, UK
- 'High-Pressure Gaseous Argon Time Projection Chamber (HPGArTPC) Near Detector (ND) Concept: Evaluation of Systematic Constraints and Impact on Charge-Parity (CP) Symmetry Violation Sensitivity', 2nd Workshop on Neutrino Near Detectors based on gas TPC, 20-21 March 2017, CERN.
- 'GENIE Status and Prospects' (Invited talk), International Workshop on Frontiers in Electroweak Interactions of Leptons and Hadrons (EILH16), 2-6 November 2016, Aligarh, India.
- 'GENIE Update' (Invited talk), 10th International Workshop on Neutrino-Nucleus Interactions (NuINT15), 16-21 November 2015, Osaka, Japan.
- 'Experimental Neutrino Physics' (Invited lecture), CORFU14 Summer School and Workshop on the Standard Model and Beyond, 3-14 September 2014, Mon-Repos, Corfu, Greece.
- 'LBNE Flux and Cross-Section Systematic Constraints for 3-Flavour Oscillation Sensitivity Simulation', CETUP*14, 10-31 July 2014, Lead, SD, USA.
- 'GENIE Update' (Invited talk), 9th International Workshop on Neutrino-Nucleus Interactions (NuINT14), 19-24 May 2014, London, UK.
- 'T2K Status and Prospects' (Invited talk), International Committee for Future Accelerators (ICFA) - European Neutrino Town Meeting, 8-10 January 2014, Paris Diderot University, France.
- 'Electron scattering data and its use in constraining neutrino models' (Invited review talk), 6th International Workshop on Neutrino-Nucleus Interactions (NuINT09), 18-22 May 2009, Sitges, Spain.
- 'The path forward: Monte Carlo convergence' (Invited talk), 6th International Workshop on Neutrino-Nucleus Interactions (NuINT09), 18-22 May 2009, Sitges, Spain.

- 'The GENIE Universal Neutrino MC Generator', 45th Karpacz Winter School in Theoretical Physics (Neutrino interactions: from theory to MC simulations), 2-11 February, 2009, Lądek-Zdrój, Poland.
- 'Recent Results from the MINOS Experiment' (Invited talk), International Nuclear Physics Conference 2007 (INPC-2007), 3-8 June 2007, Tokyo, Japan.
- 'Recent Results from the MINOS Experiment' (Invited talk), International Workshop on Double Beta Decay & Neutrinos (DBD-2007), 11-13 June 2007, Osaka, Japan.
- 'Overview of Progress in Neutrino Simulation Codes' (Invited review talk), 5th International Workshop on Neutrino-Nucleus Interactions (NuINT07), 31 May - 3 June 2007, Fermilab, Chicago IL, USA.
- 'The GENIE Universal Neutrino MC Generator' (Invited talk), 3rd International Scoping Study', 24-28 April 2006, Rutherford Appleton Lab, UK.
- 'Neutrino MC Generators and Nuclear Effects' (Invited talk), 20th Max Born Symposium (Nuclear Effects in Neutrino Interactions), 7-11 December 2005, Wroclaw, Poland.
- 'The GENIE Universal Neutrino MC Generator', 4th International Workshop on Neutrino-Nucleus Interactions (NuINT05), 26-29 September 2005, Okayama University, Okayama, Japan.
- 'Neutrino Interaction Physics and Neutrino MC Event Generators' (Invited talk), Next Generation of Nucleon Decay and Neutrino Detectors (NNN05), 7-9 April 2005, Aussois, Savoie, France.
- 'Neutrino Interaction Model Validation', 3rd International Workshop on Neutrino-Nucleus Interactions (NuINT04), 17-21 March 2004, Laboratori Nazionali del Gran Sasso - INFN, Assergi (L'Aquila), Italy.
- 'The MINOS Experiment: Current Status and Atmospheric Neutrino Studies', Recent Advances in High Energy Physics (HEP2003) Annual Meeting Of The Hellenic Society For The Study Of High Energy Physics, 17-29 April 2003, Athens, Greece.
- 'MINOS Experiment: Characterization of multi-anode PMTs for the MINOS detectors', Recent Advances in High Energy Physics (HEP2002) Annual Meeting Of The Hellenic Society For The Study Of High Energy Physics, 25-27 April, 2002, Patra, Greece.
- 'Development of the MINOS detectors', Recent Advances in High Energy Physics (HEP2001) Annual Meeting Of The Hellenic Society For The Study Of High Energy Physics, 6-8 April 2001, Heraklion, Greece.
- 'MINOS: Prototype Detector and Toroidal Magnetic Field', Recent Advances in High Energy Physics (HEP2000) Annual Meeting Of The Hellenic Society For The Study Of High Energy Physics, April 2000, Ioannina, Greece.

Seminars and Colloquia

- 'Neutrino Oscillations: Past, Present and Future', Jeremiah Horrocks Public Lecture, UCLan, 07/06/22
- 'Neutrino-Nucleus Interactions at the few-GeV Energy Scale', CERN-TH Colloquium, 05/02/2020.
- 'Neutrino-Nucleus Interaction Simulations', University of Surrey, 01/05/2018.
- 'Recent results from the T2K experiment on CP violation', Cambridge University, 07/03/2017.
- 'Neutrino Oscillation Results from T2K', Manchester University, 19/01/2012.
- 'Neutrino Oscillation Results from T2K', Birmingham University, 19/10/2011.
- 'First Neutrino Oscillation Results from T2K', University College London, 27/05/2011.
- 'First Neutrino Oscillation Results from T2K', Rutherford Appleton Lab, 25/05/2011.
- 'First Neutrino Oscillation Results from T2K', Sussex University, 12/05/2011.
- 'First Neutrino Oscillation Results from T2K', Cambridge University, 10/05/2011.
- 'First Neutrino Oscillation Results from T2K', Bristol University, 04/05/2011.
- 'Neutrino Interaction Modeling and Systematic Uncertainties', IPPP Durham, 25/01/2010.
- 'Neutrino Interaction Modeling and Systematic Uncertainties', Paris LPNHE, GDR Neutrino, 27-28/04/2009.
- 'The GENIE Neutrino MC Generator', Imperial College London, 18/03/2008.

- 'Feedback from the NuINT07, INPC07 and DBD07 conferences', Rutherford Appleton Lab, 08/08/2007.
- 'Neutrino Interaction Phenomenology', Rutherford Appleton Lab, 03/03/2006.
- 'The GENIE Neutrino MC Generator', Strasbourg IReS, GDR Neutrino, 02-03/02/2006.
- 'The MINOS Experiment: First Beam Data and Neutrino-Interaction Modeling', Imperial College London, 17/11/2005.
- 'Feedback from the NuINT05 conference', Rutherford Appleton Lab, 02/11/2005.
- 'Neutrino Oscillations & Interactions: A Review', Rutherford Appleton Lab, 22/10/2004.
- 'The MINOS Experiment', University College London, 27/05/2004.
- 'Feedback from the NuINT04 conference', Rutherford Appleton Lab, 28/04/2004.
- 'MINOS: Detector Development and Data Exploitation', Rutherford Appleton Lab, 15/10/2003.

List of publications and internal notes

Citations Summary	
Number of published papers	**107**
Number of citations	**16,447**
Citations per paper (average)	**153.7**
h-index	**58**

Source: INSPIRE HEP, Updated on July 21st, 2022

Peer-reviewed journal papers (Neutrino interaction phenomenology)

- The GENIE Collaboration (J. Tena Vidal et al.), Neutrino-nucleus CC0π cross-section tuning in GENIE v3, arXiv:2206.11050 [hep-ph] (submitted to Phys.Rev.D).
- The GENIE Collaboration (L. Alvarez-Ruso et al.), Recent highlights from GENIE v3. Published 08 December 2021, Eur.Phys.J.ST 230 (2021) 24, 4449-4467.
- The GENIE Collaboration (J. Tena Vidal et al.), AGKY Hadronization Model Tuning in GENIE v3. Published 01 January 2022. Phys.Rev.D 105 (2022) 1, 012009.
- The GENIE Collaboration (J. Tena Vidal et al.), Neutrino-Nucleon Cross-Section Model Tuning in GENIE v3. Published 01 October 2021, Phys.Rev.D 104 (2021) 7, 072009.
- C. Wilkinson et al., Testing CCQE and 2p2h models in the NEUT neutrino interaction generator with published datasets from the MiniBooNE and MINERvA experiments, 19 pp., Published 21 April 2016, Phys.Rev. D93, 072010 (2016).
- The GENIE Collaboration (C. Andreopoulos et al.), The GENIE Neutrino Monte Carlo Generator, 34 pp., Published 21 February 2010, Nucl.Instrum.Meth. A614 (2010) 87-104. (**Topcite 1000+**)
- T.Yang, C.Andreopoulos, H.Gallagher, K.Hoffmann and P.Kehayias, A Hadronization Model for few-GeV Neutrino Interactions, 15 pp., Published 01 August 2009, Eur.Phys.J. C63 (2009) 1-10.

Peer-reviewed journal papers (DUNE experiment)

- The DUNE Collaboration (A. Abed Abud et al.), Reconstruction of interactions in the ProtoDUNE-SP detector with Pandora.
- The DUNE Collaboration (A. Abed Abud et al.), Separation of track- and shower-like energy deposits in ProtoDUNE-SP using a convolutional neural network.
- The DUNE Collaboration (A. Abed Abud et al.), Scintillation light detection in the 6-m drift-length ProtoDUNE Dual Phase liquid argon TPC.
- The DUNE Collaboration (A. Abed Abud et al.), Low exposure long-baseline neutrino oscillation sensitivity of the DUNE experiment. Published 01 April 2022, Phys.Rev.D 105 (2022) 7, 072006.
- The DUNE Collaboration (A. Abed Abud et al.), Design, Construction and Operation of the ProtoDUNE-SP Liquid Argon TPC, Published 04 January 2022, JINST 17 (2022) 01, P01005.
- The DUNE Collaboration (A. Abed Abud et al.), Searching for Solar KDAR with DUNE. Published 22 October 2021, JCAP 10 (2021) 065.

- The DUNE Collaboration (B. Abi et al.), Prospects for beyond the Standard Model physics searches at the Deep Underground Neutrino Experiment. Published 16 April 2021, Eur.Phys.J.C 81 (2021) 4, 322.
- The DUNE Collaboration (B. Abi et al.), Supernova neutrino burst detection with the Deep Underground Neutrino Experiment. Published 15 May 2021, Eur.Phys.J.C 81 (2021) 5, 423.
- The DUNE Collaboration (B. Abi et al.), First results on ProtoDUNE-SP liquid argon time projection chamber performance from a beam test at the CERN Neutrino Platform. Published 3 December 2020, JINST 15 (2020) 12, P12004.
- The DUNE Collaboration (B. Abi et al.), Neutrino interaction classification with a convolutional neural network in the DUNE far detector. Published 9 November 2020, Phys.Rev.D 102 (2020) 9, 092003.
- The DUNE Collaboration (B. Abi et al.), Long-baseline neutrino oscillation physics potential of the DUNE experiment. Published 22 October 2020, Eur.Phys.J.C 80 (2020) 10, 978.

Peer-reviewed journal papers (SBND experiment)

- The SBND Collaboration (R. Acciarri et al.), Cosmic Background Removal with Deep Neural Networks in SBND. Published 24 August 2021, Frontiers in Artificial Intelligence, Vol 4 (2021), 42.
- The SBND Collaboration (R. Acciarri et al.), Construction of Precision Wire Readout Planes for the Short-Baseline Near Detector (SBND), JINST 15 (2020) 06, P06033.

Peer-reviewed journal papers (T2K experiment)

- The T2K Collaboration (K. Abe et al.), First T2K measurement of transverse kinematic imbalance in the muon-neutrino charged-current single-π^+ production channel containing at least one proton. Published 21 June 2021, Phys. Rev. D 103 (2021) 11, 112009.
- The T2K Collaboration (K. Abe et al.), Improved constraints on neutrino mixing from the T2K experiment with 3.13 $\times 10^{21}$ proton on target. Published 16 June 2021, Phys.Rev.D 103 (2021) 11, 112008.
- The T2K Collaboration (K. Abe et al.), T2K measurements of muon neutrino and antineutrino disappearance using 3.13 $\times 10^{21}$ proton on target. Published 26 January 2021, Phys.Rev.D 103 (2021) 1, L011101.
- The T2K Collaboration (K. Abe et al.), Measurements of $\bar{\nu}_\mu$ and $\bar{\nu}_\mu + \nu_\mu$ charged-current cross-sections without detected pions nor protons on water and hydrocarbon at mean neutrino energy of 0.86 GeV. Published 02 March 2021, PTEP 2021 (2021) 4, 043C01.
- The T2K Collaboration (K. Abe et al.), Simultaneous measurement of the muon neutrino charged-current cross section on oxygen and carbon without pions in the final state at T2K. Published 16 June 2020, Phys. Rev. D 101 (2020), 11, 112004.
- The T2K Collaboration (K. Abe et al.), Measurement of the charged-current electron (anti-)neutrino inclusive cross-sections at the T2K off-axis near detector ND280. Published 19 October 2020, JHEP 10 (2020) 114.
- The T2K Collaboration (K. Abe et al.), First combined measurement of the muon neutrino and antineutrino charged-current cross-section without pions in the final state at T2K. Published 2 June 2020, Phys.Rev.D 101 (2020) 11, 112001.
- The T2K Collaboration (K. Abe et al.), Search for Electron Antineutrino Appearance in a Long-baseline Muon Antineutrino Beam. Published 21 April 2020, Phys.Rev.Lett. 124 (2020) 16, 161802.
- The T2K Collaboration (K. Abe et al.), Measurement of Neutrino and Antineutrino Neutral-Current Quasielastic-like Interactions on Oxygen by Detecting Nuclear Deexcitation γ rays. Published 30 December 2019, Phys.Rev. D100 (2019) no.11, 112009.
- The T2K Collaboration (K. Abe et al.), Constraint on the Matter-Antimatter Symmetry-Violating Phase in Neutrino Oscillations. Published 15 April 2020, Nature 580 (2020) 7803, 339-344.
- The T2K Collaboration (K. Abe et al.), Measurement of the Muon Neutrino Charged-Current Single $\pi+$ Production on Hydrocarbon using the T2K Off-Axis Near Detector ND280. Published 10 September 2019, Phys.Rev. D101 (2020) no.1, 012007.
- The T2K Collaboration (K. Abe et al.), First Measurement of the Charged Current $\bar{\nu}_\mu$ Double Differential Cross Section on a Water Target Without Pions in the Final State. Published 21 July 2020, Phys.Rev.D 102 (2020) 1, 012007.

- The T2K Collaboration (K. Abe et al.), Measurement of the ν_μ Charged-Current Cross Sections on Water, Hydrocarbon, Iron, and their Ratios with the T2K On-Axis Detectors. Published 26 September 2019, Progress of Theoretical and Experimental Physics, Volume 2019, Issue 9, September 2019, 093C02.
- The T2K Collaboration (K. Abe et al.), Search for heavy neutrinos with the T2K near detector ND280. Published 10 September 2019, Phys. Rev. D 100 (2019), 052006.
- The T2K Collaboration (K. Abe et al.), Search for light sterile neutrinos with the T2K far detector Super-Kamiokande at a baseline of 295 km. Published 30 April 2019, Phys. Rev. D 99, 071103(R).
- The T2K Collaboration (K. Abe et al.), Search for neutral-current induced single photon production at the ND280 near detector in T2K. Published 20 June 2019, J.Phys. G46 (2019) no.8, 08LT01.
- The T2K Collaboration (K. Abe et al.), Search for CP Violation in Neutrino and Antineutrino Oscillations by the T2K Experiment with 2.2 $\times 10^{21}$ protons on target, 9 pp., Published 24 October 2018, Phys.Rev.Lett. 121 (2018) no.17, 171802.
- The T2K Collaboration (K. Abe et al.), Characterisation of nuclear effects in ν_μ scattering on hydrocarbon with a measurement of final-state kinematics and correlations in charged-current pionless interactions in T2K, 46 pp., Published 09 August 2018, Phys.Rev. D98 (2018) no.3, 032003.
- The T2K Collaboration (K. Abe et al.), Measurement of inclusive double-differential ν_μ charged-current cross section with improved acceptance in the T2K off-axis near detector, 18 pp., Published 30 July 2018, Phys.Rev. D98 (2018) 012004.
- The Hyper-Kamiokande Collaboration (K. Abe et al.), Physics potentials with the second Hyper-Kamiokande detector in Korea, 65 pp., Published 20 June 2018, PTEP 2018 (2018) no.6, 063C01.
- The T2K Collaboration (K. Abe et al.), Measurement of the single π^0 production rate in neutral current neutrino interactions on water, 13 pp., Published 02 February 2018, Phys.Rev. D97 (2018) no.3, 032002.
- The T2K Collaboration (K. Abe et al.), First measurement of the ν_μ charged-current cross section on a water target without pions in the final state, 16 pp., Published 08 January 2018, Phys.Rev. D97 (2018) no.1, 012001.
- The T2K Collaboration (K. Abe et al.), Measurement of neutrino and antineutrino oscillations by the T2K experiment including a new additional sample of ν_e interactions at the far detector, 49 pp., Published 21 November 2017, Phys.Rev. D96 (2017) no.9, 092006. Erratum Phys. Rev. D98 (2018) no.1, 019902.
- The T2K Collaboration (K. Abe et al.), Measurement of ν_μ and $\bar{\nu}_\mu$ charged current inclusive cross sections and their ratio with the T2K off-axis near detector, 15 pp., Published 05 September 2017, Phys. Rev. D96 (2017) no. 5, 052001.
- The T2K Collaboration (K. Abe et al.), Updated T2K measurements of muon neutrino and antineutrino disappearance using 1.5 $\times 10^{21}$ protons on target, 9 pp., Published 31 July 2017, Phys. Rev. D96 (2017) no. 1, 011102.
- The T2K Collaboration (K. Abe et al.), Search for Lorentz and CPT violation using sidereal time dependence of neutrino flavor transitions over a short baseline, 9 pp., Published 29 June 2017, Phys.Rev. D95 (2017) no.11, 111101.
- The T2K Collaboration (K. Abe et al.), Combined Analysis of Neutrino and Antineutrino Oscillations at T2K, 9 pp., Published 10 April 2017, Phys. Rev. Lett 118 (2017) no. 15, 151801.
- The T2K Collaboration (K. Abe et al.), First measurement of the muon neutrino charged current single pion production cross section on water with the T2K near detector, 11 pp., Published 26 January 2017, Phys.Rev. D95 (2017) no. 1, 012010.
- The T2K Collaboration (K. Abe et al.), Measurement of Coherent π^+ Production in Low Energy Neutrino-Carbon Scattering, 7 pp., Published 04 November 2016, Phys.Rev.Lett. 117 (2016) no.19, 192501.
- The T2K Collaboration (K. Abe et al.), Measurement of Double-Differential Muon Neutrino Charged-Current Interactions on C_8H_8 Without Pions in the Final State using the T2K Off-axis Beam, 25 pp., Published 21 June 2016, Phys.Rev. D93 (2016) 112012.
- The T2K Collaboration (K. Abe et al.), Measurement of muon anti-neutrino oscillations with an accelerator-produced off-axis beam, 8 pp., Published 05 May 2016, Phys.Rev.Lett. 116, 181801 (2016).
- The T2K Collaboration (K. Abe et al.), Measurement of the Muon Neutrino Inclusive Charged-Current Cross Section in the Energy Range of 1-3 GeV with the T2K INGRID Detector, 23 pp., Published 05 April 2016, Phys. Rev. D93 (2016) 072002.

- The T2K Collaboration (K. Abe et al.), Upper bound on neutrino mass based on T2K neutrino timing measurements, 15 pp., Published 27 January 2016, Phys.Rev. D93 (2016), 012006.
- The T2K Collaboration (K. Abe et al.), Measurement of the ν_μ charged-current quasielastic cross-section on carbon with the ND280 detector at T2K, 14 pp., Published 11 December 2015, Phys.Rev. D92 (2015) 112003.
- The T2K Collaboration (K. Abe et al.), Measurement of the Electron Neutrino Charged-Current Interaction Rate on Water with the T2K ND280 π^0 Detector, 11 pp., Published 19 June 2015, Phys.Rev. D91 112010 (2015).
- The Hyper-Kamiokande Proto-Collaboration (K. Abe at al.), Physics potential of a long-baseline neutrino oscillation experiment using a J-PARC neutrino beam and Hyper-Kamiokande, 35 pp., Published 19 May 2015, PTEP 2015 (2015) 053C02.
- The T2K Collaboration (K. Abe et al.), Measurement of the ν_μ charged current quasielastic cross section on carbon with the T2K on-axis neutrino beam, 17 pp., Published 04 June 2015, Phys.Rev. D91,112002 (2015).
- The T2K Collaboration (K. Abe et al.), Measurements of neutrino oscillation in appearance and disappearance channels by the T2K experiment with 6.6×10^{20} protons on target, 50 pp., Published 29 April 2015, Phys.Rev. D91 (2015) 072010.
- The T2K Collaboration (K. Abe et al.), Neutrino Oscillation Physics Potential of the T2K Experiment, 36 pp., Published 01 April 2015, PTEP 2015 (2015) 043C01.
- The T2K Collaboration (K. Abe et al.), Search for Short Baseline ν_e Disappearance with the T2K Near Detector, 8 pp., Published 16 March 2015, Phys.Rev. D91 (2015) 051102.
- The T2K Collaboration (K. Abe et al.), Measurement of the Inclusive Electron Neutrino Charged Current Cross Section on Carbon with the T2K Near Detector, 7 pp., Published 11 December 2014, Phys.Rev.Lett. 113 (2014) 241803.
- The T2K Collaboration (K. Abe et al.), Measurement of the Neutrino-Oxygen Neutral-Current Interaction Cross Section by Observing Nuclear De-excitation γ-Rays, 11 pp., Published 31 October 2014, Phys.Rev. D90 (2014) 072012.
- The T2K Collaboration (K. Abe et al.), Measurement of the Inclusive ν_μ Charged Current Cross-Section on Iron and Hydrocarbon in the T2K On-axis Neutrino Beam, 15 pp., Published 30 September 2014, Phys.Rev. D90 (2014) 052010.
- The T2K Collaboration (K. Abe et al.), Precise Measurement of the Neutrino Mixing Parameter θ_{23} from Muon Neutrino Disappearance in an Off-axis Beam, 8 pp., Published 08 May 2014, Phys. Rev. Lett. 112 (2014) 181801.
- The T2K Collaboration (K. Abe et al.), Measurement of the Instrinsic Electron Neutrino Component in the T2K Neutrino Beam with the ND280 Detector, 18 pp., Published 05 May 2014, Phys.Rev. D89 (2014) 092003.
- The T2K Collaboration (K. Abe et al.), Observation of Electron Neutrino Appearance in a Muon Neutrino Beam, 8 pp., Published 10 February 2014, Phys. Rev. Lett. 112 (2014) 061802.
- The T2K Collaboration (K. Abe et al.), Measurement of Neutrino Oscillation Parameters from Muon Neutrino Disappearance with an Off-axis Beam, 7 pp., Published 19 November 2013, Phys. Rev. Lett. 111 (2013) 211803.
- The T2K-UK Collaboration (D.Allan et al.), The Electromagnetic Calorimeter for the T2K Near Detector ND280, 38 pp., Published October 2013, JINST 8 (2013) P10019.
- The T2K Collaboration (K. Abe et al.), Evidence of Electron Neutrino Appearance in a Muon Neutrino Beam, 41 pp., Published 05 August 2013, Phys. Rev. D88 (2013) 032002.
- The T2K Collaboration (K. Abe et al.), Measurement of the Inclusive ν_μ Charged Current Cross Section on Carbon in the Near Detector of the T2K Experiment, 20 pp., Published 07 May 2013, Phys. Rev. D87 (2013) 092003.
- The T2K Collaboration (K. Abe et al.), The T2K Neutrino Flux Prediction, 34 pp., Published 29 January 2013, Phys. Rev. D87 (2013) 012001.
- The T2K Collaboration (K. Abe et al.), Measurements of the T2K neutrino beam properties using the INGRID on-axis near detector, 32 pp., Published 01 December 2012, Nucl.Instrum.Meth. A694 (2012) 211-223.

- The T2K Collaboration (K. Abe et al.), First Muon Neutrino Disappearance Study with an Off-axis Beam, 7 pp., Published 22 February 2012, Phys. Rev. D85 (2012) 031103.
- The T2K Collaboration (K. Abe et al.), The T2K Experiment, 33 pp., Published 11 December 2011, Nucl. Instrum. Meth. A659 (2011) 106-135.
- The T2K Collaboration (K. Abe et al.), Indication of Electron Neutrino Appearance from an Accelerator-produced Off-axis Muon Neutrino Beam, 20 pp., Published 18 July 2011, Phys. Rev. Lett. 107 (2011) 041801. (**Topcite 1000+**)

Peer-reviewed journal papers (MINOS experiment)

- The MINOS Collaboration (P. Adamson et al.), First direct observation of muon antineutrino disappearance, 6 pp., Published 05 July 2011, Phys. Rev. Lett. 107 (2011) 021801.
- The MINOS Collaboration (P. Adamson et al.), Measurement of the neutrino mass splitting and flavor mixing by MINOS, 5 pp., Published 02 May 2011, Phys. Rev. Lett. 106 (2011) 181801.
- The MINOS Collaboration (P. Adamson et al.), Measurement of the underground atmospheric muon charge ratio using the MINOS Near Detector, 11 pp., Published 28 February 2011, Phys. Rev. D83 (2011) 032011.
- The MINOS Collaboration (P. Adamson et al.), Observation in the MINOS far detector of the shadowing of cosmic rays by the sun and moon, 23 pp., Published January 2011, Astropart. Phys. 34 (2011) 457-466.
- The MINOS Collaboration (P. Adamson et al.), New constraints on muon-neutrino to electron-neutrino transitions in MINOS, 5 pp., Published 21 September 2010, Phys. Rev. D82 (2010) 051102.
- The MINOS Collaboration (P. Adamson et al.), Neutrino and Antineutrino Inclusive Charged-Current Cross Section Measurements with the MINOS Near Detector, 33 pp., Published 8 April 2010, Phys. Rev. D81 (2010) 072002.
- The MINOS Collaboration (P. Adamson et al.), Search for sterile neutrino mixing in the MINOS long baseline experiment, 18 pp., Published 11 March 2010, Phys. Rev. D81 (2010) 052004.
- The MINOS Collaboration (P. Adamson et al.), Observation of muon intensity variations by season with the MINOS far detector, 8 pp., Published 06 January 2010, Phys. Rev. D81 (2010) 012001.
- The MINOS Collaboration (P. Adamson et al.), Search for muon-neutrino to electron-neutrino transitions in MINOS, 5 pp., Published 29 December 2009, Phys. Rev. Lett. 103 (2009) 261802.
- ISS Detector Working Group (T.Abe et al), Detectors and Flux Instrumentation for Future Neutrino Facilities, 86 pp., Published 18 May 2009, JINST 4 (2009) T05001.
- The MINOS Collaboration (S. Osprey et al.), Sudden stratospheric warmings seen in MINOS deep underground muon data, 18 pp., Published 07 March 2009, Geophys. Res. Lett. 36 (2009) L05809.
- The MINOS Collaboration (P. Adamson et al.), Search for active neutrino disappearance using neutral-current interactions in the MINOS long-baseline experiment, 5 pp., Published 26 November 2008, Phys. Rev. Lett. 101 (2008) 221804.
- The MINOS Collaboration (P. Adamson et al.), The Magnetized steel and scintillator calorimeters of the MINOS experiment, 87 pp., Published 1 November 2008, Nucl. Instrum. Meth. A596 (2008) 190-228.
- The MINOS Collaboration (P. Adamson et al.), Testing Lorentz Invariance and CPT Conservation with NuMI Neutrinos in the MINOS Near Detector, 5 pp., Published 09 October 2008, Phys. Rev. Lett. 101 (2008) 151601.
- The MINOS Collaboration (P. Adamson et al.), Measurement of Neutrino Oscillations with the MINOS Detectors in the NuMI beam, 5 pp., Published 26 September 2008, Phys. Rev. Lett. 101 (2008) 131802.
- The MINOS Collaboration (P. Adamson et al.), A Study of Muon Neutrino Disappearance Using the Fermilab Main Injector Neutrino Beam, 57 pp., Published 04 April 2008, Phys. Rev. D77 (2008) 072002.
- The MINOS Collaboration (P. Adamson et al.), Measurement of neutrino velocity with the MINOS detectors and NuMI neutrino beam, 5 pp., Published 15 October 2007, Phys. Rev. D76 (2007) 072005.
- The MINOS Collaboration (P. Adamson et al.), Measurement of the atmospheric muon charge ratio at TeV energies with MINOS, 16 pp., Published 20 September 2007, Phys. Rev. D76 (2007) 052003.
- The MINOS Collaboration (P. Adamson et al.), Charge-Separated Atmospheric Neutrino-Induced Muons in the MINOS Far Detector, 14 pp., Published 17 May 2007, Phys. Rev. D75 (2007) 092003.

- The MINOS Collaboration (D.G. Michael et al.), Observation of Muon Neutrino Disappearance with the MINOS Detectors and the NuMI Neutrino Beam, 6 pp., Published 08 November 2006, Phys.Rev.Lett. 97 (2006) 191801.
- The MINOS Collaboration (P. Adamson et al.), First Observations of Separated Atmospheric Muon Neutrino and Muon Anti-Neutrino Events in the MINOS Detector, 18 pp., Published 06 April 2006, Phys. Rev. D73 (2006) 072002.
- K. Lang et al., Results of characterization of 1,600 of 16-anode PMTs for the MINOS far detector, 20 pp., Published 21 June 2005, Nucl. Instrum. Meth. A545 (2005) 852-871.

Peer-reviewed journal papers (DONuT experiment)

- The DONuT Collaboration (K. Kodama et al.), Final tau-neutrino results from the DONuT experiment, 37 pp., Published 11 September 2008, Phys. Rev. D78 (2008) 052002.
- The DONuT Collaboration (K. Kodama et al.), Identification of Neutrino Interactions with the DONUT Spectrometers, 13pp., Published 01 January 2004, Nucl. Instrum. Meth. A516 (2004) 21-33.
- The DONuT Collaboration (R. Schwienhorst et al.), A new upper limit for the tau neutrino magnetic moment, 10pp., Published 26 July 2001, Phys. Lett. B513 (2001) 23-29.
- The DONuT Collaboration (K. Kodama et al.), Observation of tau neutrino interactions, 12pp., Published 12 April 2001, Phys. Lett. B504 (2001) 218-224. (**Topcite 1000+**)

Conference proceedings

- C. Andreopoulos et al., VALOR joint oscillation analysis using multiple LAr-TPCs in the Booster Neutrino Beam, J.Phys.Conf.Ser. 888, (2017) no. 1, 012254 [Neutrino16 proceedings].
- C. Andreopoulos, The GENIE Neutrino Monte Carlo Generator, Acta Phys.Polon.B40:2461, 2009 [45th Karpacz Winter School proceedings].
- J. Dobson and C. Andreopoulos, Propagating Neutrino Interaction Uncertainties via Event Reweighting, Acta Phys.Polon.B40:2613, 2009 [45th Karpacz Winter School proceedings].
- C. Andreopoulos, H.Gallagher, Y.Hayato, J.Sobczyk, C.Walter and G.P.Zeller, The path forward: Monte Carlo convergence discussion, AIP Conf. Proc.1189:312-319, 2009 [NuINT09 proceedings].
- C. Andreopoulos, Overview of Progress in Neutrino-Nucleus Simulation codes, AIP Conf. Proc. 967:31-36, 2007 [NuINT07 proceedings].
- T.Yang, C. Andreopoulos, H.Gallagher and P.Kehayias, A hadronization model for the MINOS experiment, AIP C.P.967:269-275,2007 [NuINT07 proceedings].
- C.Andreopoulos, The GENIE Universal, Object-Oriented Neutrino Monte Carlo Generator, Nucl.Phys.B. Proc.Suppl. 159: 217-222, 2006 [NuINT05 proceedings].
- C.Andreopoulos, The GENIE Object-Oriented Neutrino Generator and Neutrino Interaction Modelling, Acta Phys.Polon.B37:2349-2360, 2006 [XXth Max Born proceedings].
- C. Andreopoulos and H. Gallagher, Tools for Neutrino Interaction Model Validation, Nucl. Phys. B Proc.Suppl. 139: 247-252, 2005 [NuINT04 proceedings].

Selected internal notes

- C. Andreopoulos et al., Sterile Neutrino Oscillation Sensitivity Simulation in SBN, SBN-doc-27037.
- T.Alion et al., DUNE Near Detector Task Force Report, 54 pp., Last revision published 21 December 2017, DUNE Technical Note DUNE-doc-1792.
- C. Andreopoulos et al., T2K Neutrino and Anti-Neutrino 3-Flavour Joint Analysis of Run 1-10 (1.4938×10^{21}-POT Neutrino and 1.6346×10^{21}-POT Anti-Neutrino), Last revision published 02 March 2020, T2K Technical Note T2K-TN-394.
- C. Andreopoulos et al., T2K 14.938×10^{20}-POT Neutrino and 11.236×10^{20}-POT Anti-Neutrino (Run 1-9) Joint 5-Sample 3-Flavour Analysis (2018), 85 pp., Last revision published 28 September 2018, T2K Technical Note T2K-TN-360.
- C. Andreopoulos et al., T2K 14.938×10^{20}-POT Neutrino and 11.236×10^{20}-POT Anti-Neutrino (Run 1-9) $\bar{\nu}_e$ Appearance Analysis (2018), 30 pp., Last revision published 26 May 2018, T2K Technical Note T2K-TN-356.

- C. Andreopoulos et al., T2K 14.734×10^{20}-POT Neutrino and 7.558×10^{20}-POT Anti-Neutrino (Run 1-8) Joint 5-Sample 3-Flavour Analysis (2017), 122 pp., Last revision published 07 September 2018, T2K Technical Note T2K-TN-327.
- C. Andreopoulos et al., T2K 7.482×10^{20}-POT Neutrino and 7.471×10^{20}-POT Anti-Neutrino (Run 1-7) Joint 3-Flavour Analysis with additional ν_eCC1π^+ sample (2016), 132 pp., Last revision published 22 July 2017, T2K Technical Note T2K-TN-306.
- C. Andreopoulos et al., T2K 7.482×10^{20}-POT Neutrino and 7.471×10^{20}-POT Anti-Neutrino (Run 1-7) Joint 3-Flavour Analysis [with the standard 4 e-like and μ-like single-ring samples] (2016), 196 pp., Last revision published 05 October 2016, T2K Technical Note T2K-TN-266.
- C. Andreopoulos et al., T2K 7.482×10^{20}-POT Neutrino and 7.471×10^{20}-POT Anti-Neutrino (Run 1-7) 3-Flavour ν_μ and $\bar{\nu}_\mu$ Disappearance Analysis (2016), 52 pp., Last revision published 12 September 2016, T2K Technical Note T2K-TN-302.
- C. Andreopoulos et al., T2K 7.482×10^{20}-POT Neutrino and 7.471×10^{20}-POT Anti-Neutrino (Run 1-7) $\bar{\nu}_e$ Appearance Analysis (2016), 31 pp., Last revision published 22 July 2017, T2K Technical Note T2K-TN-296.
- C. Andreopoulos et al., T2K 4.0108×10^{20}-POT (Run 5-6) $\bar{\nu}_e$ Appearance Analysis (2015), 49 pp., Last revision published 26 June 2015, T2K Technical Note T2K-TN-252.
- C. Andreopoulos et al., T2K 4.011×10^{20}-POT (Run 5-6) 3-Flavour $\bar{\nu}_\mu$ Disappearance Analysis (2015), 73 pp., Last revision published 06 May 2015, T2K Technical Note T2K-TN-243.
- C. Andreopoulos et al., T2K 6.5700×10^{20}-POT (Run 1-4) 3-Flavour ν_μ Disappearance Analysis (2013), 91 pp., Last revision published 20 Feburary 2014, T2K Technical Note T2K-TN-183.
- C. Andreopoulos et al., T2K 6.5700×10^{20}-POT (Run 1-4) Joint 3-Flavour Oscillation Analysis (2013), 175 pp., Last revision published 11 March 2014, T2K Technical Note T2K-TN-175.
- C. Andreopoulos et al., T2K 3.010×10^{20}-POT (Run 1-3) Joint 3-Flavour Oscillation Analysis (2012), 173 pp., Last revision published 26 September 2013, T2K Technical Note T2K-TN-154.
- C. Andreopoulos et al., T2K 3.010×10^{20}-POT (Run 1-3) 3-Flavour ν_μ Disappearance Analysis (2012), 381 pp., Last revision published 19 September 2013, T2K Technical Note T2K-TN-141.
- C. Andreopoulos et al., T2K 1.431×10^{20}-POT (Run 1-2) 3-Flavour ν_μ Disappearance Analysis (2010), 30 pp., Last revision published 22 December 2011, T2K Technical Note T2K-TN-87.
- C. Andreopoulos et al., T2K 1.431×10^{20}-POT (Run 1-2) ν_μ Disappearance Analysis (2010), 37 pp., Last revision published 14 July 2011, T2K Technical Note T2K-TN-64.
- C. Andreopoulos et al., T2K 0.323×10^{20}-POT (Run 1) ν_μ Disappearance Analysis (2010), 75 pp., Last revision published 18 February 2011, T2K Technical Note T2K-TN-36.
- C. Andreopoulos et al., Neutrino Generator (GENIE) Uncertainties and 2010a Muon-Neutrino Disappearance / Electron-Neutrino Appearance Oscillation Analysis Systematics, 67 pp., Last revision published 21 January 2011, T2K Technical Note T2K-TN-35.
- C. Andreopoulos et al., Handling Neutrino Interaction Uncertainties using Event Reweighting, 29 pp., Last revision published 17 June 2009, T2K Technical Note T2K-TN-7.
- C. Andreopoulos et al., A GENIE-based Event Generation Driver for T2K, 11 pp., Last revision published 17 June 2009, T2K Technical Note T2K-TN-6.
- H. Gallagher et al., Event Generator Uncerainties and the 1E+20 POT ν_μ CC Analysis, January 2, 2005.
- C. Andreopoulos et al., Results from the MINOS Far Detector 4 Plane Prototype, NuMI-ANA-994.
- C. Andreopoulos et al., MINOS 4 Plane Prototype Offline Analysis Framework, NuMI-Note-COMP-992.
- C. Andreopoulos et al., Expected Rates and Spectra of Upward-Going Muons and Contained Atmospheric Neutrino Interactions in the MINOS Far Detector, NuMI-Note-ATM_NU-990.
- C. Andreopoulos et al., Neural Network Techniques for Atmospheric Neutrino MC Event Classification and MINOS Sensitivity to Neutrino Oscillations, NuMI-Note-ATM_NU-991.
- C. Andreopoulos et al., Spatial Tessellation Techniques for the MINOS Magnetic Field, NuMI-Note-COMP-993.

- C. Andreopoulos et al., The Athens Automated Test Station for Hamamatsu M16 PMTs, NuMI-Note-SCINT-984.
- C. Andreopoulos et al., The Small Athens Test Station for Hamamatsu M16 PMTs, NuMI-Note-SCINT-983.
- C. Andreopoulos et al., Dynamical Alignment of the Athens Test Station, NuMI-Note-SCINT-985.
- C. Andreopoulos et al., Operation and QA/QC procedures for the Athens Automated Test Station for Hamamatsu M16 PMTs, UA/PHYS/HEP/10-12-2002.
- C. Andreopoulos et al., Temperature effect on M16 PMTs, NuMI-Note-SCINT-988.
- C. Andreopoulos et al., The Athens Test Stations for MINOS / Hamamatsu M16 Photomultipliers, C. Andreopoulos for the MINOS Collaboration, presented in National Instruments Days 2003 Technical Conference, National Technical University, Athens, Greece, April 8, 2003, NuMI-CONF-GEN-989.
- C. Andreopoulos, MuELoss: C++ software package for computing muon energy losses in the energy range up to 10 TeV, NuMI-Note-COMP-1001.

Other

- J. Fidalgo Prieto et al., Submarine Navigation using Neutrinos. arXiv:2207.09231 [physics.ins-det].
- J.M. Campbell et al., Event Generators for High-Energy Physics Experiments. Contribution to 2022 Snowmass Summer Study, arXiv:2203.11110 [hep-ph].
- L. Alvarez Ruso et al., Theoretical tools for neutrino scattering: interplay between lattice QCD, EFTs, nuclear physics, phenomenology, and neutrino event generators. Contribution to 2022 Snowmass Summer Study, arXiv:2203.09030 [hep-ph].
- D. Casper et al., Software and Computing for Small HEP Experiments. Contribution to 2022 Snowmass Summer Study, aXiv:2203.07645 [hep-ex].
- The DUNE Collaboration (A. Abed Abud et al.), Snowmass Neutrino Frontier: DUNE Physics Summary. Contribution to 2022 Snowmass Summer Study, arXiv:2203.06100 [hep-ex].
- The DUNE Collaboration (A. Abed Abud et al.), A Gaseous Argon-Based Near Detector to Enhance the Physics Capabilities of DUNE. Contribution to 2022 Snowmass Summer Study, arXiv:2203.06281 [hep-ex].
- The DUNE Collaboration (A.Abed Abud et al.), Deep Underground Neutrino Experiment Near Detector Conceptual Design Report. Published 29 September 2021, Instruments 5 (2021) 4, 31.
- The DUNE Collaboration (B. Abi et al.), Deep Underground Neutrino Experiment (DUNE), Far Detector Technical Design Report, Volume III: DUNE Far Detector Technical Coordination. Published 27 August 2020, JINST 15 (2020) 08, T08009.
- The DUNE Collaboration (B. Abi et al.), Deep Underground Neutrino Experiment (DUNE), Far Detector Technical Design Report, Volume IV: Far Detector Single-phase Technology, JINST 15 (2020) 08, T08010.
- The DUNE Collaboration (B. Abi et al.), Deep Underground Neutrino Experiment (DUNE), Far Detector Technical Design Report, Volume I Introduction to DUNE, JINST 15 (2020) 08, T08008.
- The DUNE Collaboration (B.Abi et al.), The Single-Phase ProtoDUNE Technical Design Report, 178 pp., arXiv:1706.07081[physics.ins-det].
- The DUNE Collaboration (B.Abi et al.), The DUNE Far Detector Interim Design Report, Volume 1, Physics, Technology and Strategy, arXiv:1807.10340[physics.ins-det].
- The DUNE Collaboration (B.Abi et al.), The DUNE Far Detector Interim Design Report, Volume 2, Single-Phase Module, arXiv:1807.10327[physics.ins-det].
- The DUNE Collaboration (B.Abi et al.), The DUNE Far Detector Interim Design Report, Volume 3, Dual-Phase Module, arXiv:1807.10334[physics.ins-det].
- The DUNE Collaboration (B.Abi et al.), Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE): Conceptual Design Report, Volume 1: The LBNF and DUNE Projects, arXiv:1601.05471[physics.ins-det].
- The DUNE Collaboration (B.Abi et al.), Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE): Conceptual Design Report, Volume 2: The Physics Programme for DUNE at LBNF, arXiv:1502.06148[physics.ins-det].

- The DUNE Collaboration (B.Abi et al.), Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE): Conceptual Design Report, Volume 4: The DUNE Detectors at LBNF, arXiv:1601.02984[physics.ins-det].
- The Hyper-Kamiokande Collaboration (K. Abe et al.), The Hyper-Kamiokande Design Report, 333 pp., arXiv:1805.04163[physics.ins-det].
- The T2K Collaboration, (K. Abe et al.), Proposal for an Extended Run of T2K to 20 $\times 10^{21}$ POT, arXiv:1609.04111[hep-ex].
- C.Andreopoulos et al., TITUS: the Tokai Intermediate Tank for the Unoscillated Spectrum, arXiv:1606.08114[physics.ins-det].
- MicroNooNE and LAr1-ND and ICARUS-WA104 Collaborations (M. Antonello et al.), Proposal for a Three Detector Short-Baseline Neutrino Oscillation Program in the Fermilab Booster Neutrino Beam, arXiv:1503.01520[physics.ins-det].
- Hyper-Kamiokande Working Group (K. Abe et al.), A Long Baseline Neutrino Oscillation Experiment Using J-PARC Neutrino Beam and Hyper-Kamiokande, arXiv:1412.4673 [physics.ins-det].
- M. Bogomilov et al., Neutrino Factory, Phys.Rev.ST Accel.Beams 17 (2014) 12, 121002.
- S.Choubey et al., International Design Study for the Neutrino Factory, Interim Design Report, IDS-NF-20, May 2011.
- The Hybrid Emulsion Detector for MINOS R&D Proposal, April 1999, Fermilab-PROPOSAL-0915.