

Curriculum Vitae

Maria Benedetta Barbaro

- ADDRESS

- Physics Department, University of Turin, Via P. Giuria 1, I10125 Turin, Italy
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- EDUCATION

- Ph.D. in Physics, Turin University, 1989.
- Degree in Physics, Turin University, 1985.

- ACADEMIC POSITIONS

- Associate Professor, Turin University, Department Physics, 2006-present; qualified as Full Professor (“Abilitazione Scientifica Nazionale”) since 2012.
- Researcher, Turin University, Department of Theoretical Physics, 1990-2006.

- ADJUNCT AND VISITING POSITIONS

- Visiting Professor at CEA/DRF/Irfu, Saclay (France) on the project “NENUS: Neutrino-nucleus scattering, a theory/experiment collaboration”, May 1 to July 1, 2018.
- Visiting Professor of the Atomic, Molecular and Nuclear Physics Department of University of Seville (Spain) with a Spanish Ministry of Education “Ayuda para estancias de profesores, investigadores, de acreditada experiencia, en regimen de ano sabatico en Espana (SAB20010025)”, September 1 to December 31, 2002.
- University College of London, Department of Physics and Astronomy, Research Associate, September 1988 - December 1990.
- Visitor of the MIT Center for Theoretical Physics within the “Bruno Rossi” exchange program (about 3 weeks/year in the years 1995 - 2000).

- ADMINISTRATIVE AND COLLECTIVE RESPONSIBILITIES

- Local coordinator of the Turin group in the INFN National Project MANYBODY
- Italian spokesperson of the INFN-MICINN collaboration between Italy and Spain, involving the Universities of Torino, Pavia, Seville, Granada and Madrid (2003-2012).
- Responsible of the following Local University Fundings for the Nuclear Theory Group of University of Turin: “Study of Nuclear Systems from Low to High Temperatures”.
- Participant to the PRIN (Programma di Ricerca Scientifica di Interesse Nazionale) programs: “Physics of High Energy Heavy Ion Collisions and QCD” (2009WA4R8W-0002); “Hadronic matter at high density/temperature and phenomenology of relativistic heavy-ion collisions” (2006025843-002); “Nuclear Systems and Hadronic Matter” (2003029498-006); “Nuclei and Hadronic Matter” (2001024324-007); “Application of perturbative, statistical, functional and semiclassical techniques to the study of complex nuclear systems” (9902198839-010); “Nuclear Physics and Many-Body Systems” (9702196508-016).
- Participant to a Fibr Project (RBFR0814TT) on Heavy Ion Physics at LHC.
- Local Committee Memberships (University of Turin):

- * Responsible of the Quality Assurance of the Physics Department
- * Member of the Physics PhD Teaching Board
- * Departmental Review Committee (Commissione Riesame) (2011-2014)
- * Coordinator of Part-time Students Curriculum (2006-)
- * Local Research Funding Committee (2002-2004)
- * Physics Library Committee (2000-2004)

- RESEARCH

- Current fields of research interest: Nuclear and many-body physics, Electroweak interactions in nuclei, Nuclear effects in neutrino-nucleus scattering, Relativistic modeling of the nuclear dynamics, Parity violating electron scattering
- PUBLICATIONS
 - * Author of about 120 articles published in peer-reviewed journals (see attached list)
- COLLABORATIONS
 - * Longstanding collaborations with: Massachusetts Institute of Technology (Cambridge, MA, USA); University of Sevilla (Spain); University of Granada (Spain); Universidad Complutense de Madrid (Spain); University of Valencia (Spain); University of Sofia (Bulgaria); Università di Pavia (Italy); Old Dominion University and JLab (USA).
 - * Member of the NuSTEC (Neutrino Scattering Theory-Experimental Collaboration) International Board.
- REFEREE/REVIEWER ACTIVITY: referee for international scientific journals (among which Physical Review C and D, Journal of Physics G, Nuclear Physics A, EPJA)
- WORKSHOP AND CONFERENCE ORGANIZATION
 - * Workshop "Modeling Charge-changing and Neutral-current Neutrino Reactions with Nuclei", December 12-16 2011, ECT* Trento (Italy)
 - * Workshop "Electroweak Interactions with Nuclei: Superscaling and Connections between Electron and Neutrino Scattering", October 26-30 2009, ECT* Trento (Italy)
 - * Workshop "Electroweak interactions with nuclei and physics of the quark-gluon plasma : many-body techniques at high energies and temperatures", November 26-30 2007, ECT* Trento (Italy)
 - * Member of the "Incontro Nazionale di Fisica Nucleare" (INFN) scientific board, editions 2018 and 2016
 - * Workshop "Two-body current contributions in neutrino-nucleus scattering", April 18-22 2016, ESNT/CEA, Saclay (France)
 - * Workshop "Modeling neutrino-nucleus interactions", July 9-13 2018, ECT* Trento (Italy)

- TEACHING

- University of Turin
 - * 2017-2018: Mathematical Methods for Physics (Degree in Physics)
 - * 2012-18: Quantum Mechanics (Master Degree in Mathematics)
 - * 2012-18: Complements of Structure of Matter (Master Degree in Physics)
 - * 2013-18: Theory of Complex System at Low and High Temperature (Master Degree in Physics)
 - * 2004-12: Structure of Matter (Master Degree in Physics)

- * 2009-11: Nuclear Theory (Degree in Physics)
- * 2001-12: Mathematical Methods for Physics (Degree in Physics)
- * 1995-2000: Mathematical Methods for Physics (Degree in Material Science)
- External Teaching
 - * 2013: Fifth Course of the Nuclear Physics School Raimondo Anni for PhD Students, Otranto, Italy
 - * 2005: First Course of the Nuclear Physics School Raimondo Anni for PhD Students, Otranto, Italy (Convener of one of the two Sections and Teacher)
- Student Training and Advising
 - * Advisor of 13 Undergraduate Students at University of Turin; Co-tutor of 1 PhD student at University of Seville (Spain)
- External Committees
 - * External Committee Member of 4 PhD theses: C. Martinez (University of Seville, 2004), V. De Donno (University of Lecce, 2008), R. Gonzalez-Jimenez (University of Seville, 2014), S. Fazzini (Politecnico of Turin, 2018).
- Bibliometric indicators (last update: April 5, 2018)
 - database Google Scholar: 168 papers, total number of citations: 2515, h-index: 28
 - database inSPIRE: 128 papers, total number of citations: 2292, h-index: 28
 - database SCOPUS: 110 papers, total number of citations: 1801, h-index: 25
 - database Web of Science: 114 papers, total number of citations: 1764, h-index: 25

Papers by Maria Benedetta BARBARO

1. **“NuSTEC White Paper: Status and Challenges of Neutrino-Nucleus Scattering”**
L. Alvarez-Ruso *et al.*
arXiv:1706.03621 [hep-ph]
DOI:10.1016/j.ppnp.2018.01.006
Progress in Particle and Nuclear Physics, **100**, 1-68 (2018)
2. **“Nuclear Effects in (Anti)Neutrino Charged-current Quasielastic Scattering at MINER ν A Kinematics”**
M. V. Ivanov, A. N. Antonov, G. D. Megias, R. Gonzalez-Jimenez, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and J. M. Udias.
DOI:10.5506/APhysPolBSupp.11.49
Acta Phys. Polon. Supp. **11**, 49 (2018).
3. **“Neutrino-Oxygen $CC0\pi$ scattering in the SuSA ν 2-MEC model”**
G. D. Megias, M. B. Barbaro, J. A. Caballero, J. E. Amaro, T. W. Donnelly, I. Ruiz Simo and J. W. Van Orden.
arXiv:1711.00771 [nucl-th]
Submitted to Physical Review D
4. **“Nuclear dependence of the 2p2h electroweak response in the Relativistic Fermi Gas model”**
M. B. Barbaro, M. B. Barbaro, J. E. Amaro, J. A. Caballero, A. De Pace, T. W. Donnelly, G. D. Megías and I. R. Simo.
arXiv:1706.08887 [nucl-th]
Proceedings of the Workshop “Advanced Aspects in Nuclear Structure and Reactions at Different Energy Scales”, 25-28 April 2017, Arbanasi, Bulgaria
5. **“Two-nucleon emission in neutrino and electron scattering from nuclei: the modified convolution approximation”**
I. Ruiz Simo, J. E. Amaro, M. B. Barbaro, J. A. Caballero, G. D. Megias and T. W. Donnelly.
arXiv:1706.06377 [nucl-th]
DOI:10.1016/j.aop.2017.11.029
Annals Phys. **388**, 323 (2018)
6. **“Density dependence of 2p-2h meson-exchange currents”**
J. E. Amaro, M. B. Barbaro, J. A. Caballero, A. De Pace, T. W. Donnelly, G. D. Megias and I. Ruiz Simo.
arXiv:1704.01539 [nucl-th]
DOI:10.1103/PhysRevC.95.065502
Phys. Rev. C **95**, no. 6, 065502 (2017)
7. **“The frozen nucleon approximation in two-particle two-hole response functions”**
I. Ruiz Simo, J. E. Amaro, M. B. Barbaro, J. A. Caballero, G. D. Megias and T. W. Donnelly.
arXiv:1703.01186 [nucl-th]

DOI:10.1016/j.physletb.2017.04.063
Phys. Lett. B **770**, 193 (2017)

8. **“The role of meson exchange currents in charged current (anti)neutrino-nucleus scattering”**
M. B. Barbaro, J. E. Amaro, J. A. Caballero, A. De Pace, T. W. Donnelly, G. D. Megias and I. Ruiz Simo.
arXiv:1610.02924 [nucl-th]
9. **“Charged-current neutrino-nucleus reactions within the superscaling meson-exchange current approach”**
G. D. Megias, J. E. Amaro, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and I. Ruiz Simo.
arXiv:1607.08565 [nucl-th]
DOI:10.1103/PhysRevD.94.093004
Phys. Rev. D **94**, no. 9, 093004 (2016)
10. **“Emission of neutron–proton and proton–proton pairs in neutrino scattering”**
I. Ruiz Simo, J. E. Amaro, M. B. Barbaro, A. De Pace, J. A. Caballero, G. D. Megias and T. W. Donnelly.
arXiv:1607.08451 [nucl-th]
DOI:10.1016/j.physletb.2016.09.021
Phys. Lett. B **762**, 124 (2016)
11. **“Charged-current inclusive neutrino cross sections in the SuperScaling model”**
M. V. Ivanov *et al.*
DOI:10.1088/1742-6596/724/1/012020
J. Phys. Conf. Ser. **724**, no. 1, 012020 (2016).
12. **“Emission of neutron-proton and proton-proton pairs in electron scattering induced by meson-exchange currents”**
I. Ruiz Simo, J. E. Amaro, M. B. Barbaro, A. De Pace, J. A. Caballero, G. D. Megias and T. W. Donnelly.
arXiv:1606.06480 [nucl-th]
DOI:10.1103/PhysRevC.94.054610
Phys. Rev. C **94**, no. 5, 054610 (2016)
13. **“Relativistic Modeling of Inclusive Neutrino-Nucleus Interactions in the SuperScaling Approach”**
G. D. Megias, J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
DOI:10.1007/978-3-319-21191-6_9
Springer Proc. Phys. **182**, 179 (2016).
14. **“Relativistic model of 2p-2h meson exchange currents in (anti)neutrino scattering”**
I. Ruiz Simo, J. E. Amaro, M. B. Barbaro, A. De Pace, J. A. Caballero and T. W. Donnelly.
arXiv:1604.08423 [nucl-th]
DOI:10.1088/1361-6471/aa6a06
J. Phys. G **44**, no. 6, 065105 (2017)
15. **“Inclusive electron scattering within the SuSAv2 meson-exchange current approach”**
G. D. Megias, J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1603.08396 [nucl-th]
DOI:10.1103/PhysRevD.94.013012
Phys. Rev. D **94**, 013012 (2016)

16. **“Charged-current inclusive neutrino cross sections in the SuperScaling model”**
M. V. Ivanov *et al.*
DOI:10.1063/1.4944128
AIP Conf. Proc. **1722**, 030005 (2016).
17. **“Estimate of the theoretical uncertainty of the cross sections for nucleon knockout in neutral-current neutrino-oxygen interactions”**
A. M. Ankowski, M. B. Barbaro, O. Benhar, J. A. Caballero, C. Giusti, R. Gonzalez-Jimenez, G. D. Megias and A. Meucci.
arXiv:1506.02673 [nucl-th]
DOI:10.1103/PhysRevC.92.025501
Phys. Rev. C **92**, no. 2, 025501 (2015)
18. **“Charged-current inclusive neutrino cross sections in the SuperScaling model including quasielastic, pion production and meson-exchange contributions”**
M. V. Ivanov, G. D. Megias, R. Gonzalez-Jimenez, O. Moreno, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1506.00801 [nucl-th]
DOI:10.1088/0954-3899/43/4/045101
J. Phys. G **43**, no. 4, 045101 (2016)
19. **“Neutral current quasielastic (anti)neutrino scattering beyond the Fermi gas model at MiniBooNE and BNL kinematics”**
M. V. Ivanov *et al.*
arXiv:1503.00053 [nucl-th]
DOI:10.1103/PhysRevC.91.034607
Phys. Rev. C **91**, no. 3, 034607 (2015)
20. **“2p-2h excitations in neutrino scattering: angular distribution and frozen approximation”**
I. Ruiz Simo, C. Albertus-Torres, J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1501.07120 [nucl-th]
PoS NUFAC **2014**, 057 (2015)
21. **“Charged-current inclusive neutrino cross sections: Superscaling extension to the pion production and realistic spectral function for quasielastic region”**
M. V. Ivanov, A. N. Antonov, M. B. Barbaro, J. A. Caballero, G. D. Megias, R. Gonzalez-Jimenez, E. Moya de Guerra and J. M. Udías.
Nucl. Theor. **34**, 55 (2015).
22. **“Charge-current and neutral-current quasielastic neutrino (antineutrino) scattering on ^{12}C with realistic spectral and scaling functions”**
A. N. Antonov *et al.*
Nucl. Theor. **34**, 45 (2015).
23. **“Meson-exchange currents and quasielastic predictions for charged-current neutrino- ^{12}C scattering in the superscaling approach”**
G. D. Megias *et al.*
arXiv:1412.1822 [nucl-th]
DOI:10.1103/PhysRevD.91.073004
Phys. Rev. D **91**, no. 7, 073004 (2015)

24. **“Testing nuclear models via neutrino scattering”**
M. B. Barbaro *et al.*
arXiv:1411.5981 [nucl-th]
Nucl. Theor. **33**, 75 (2014)
25. **“Extensions of Superscaling from Relativistic Mean Field Theory: the SuSAv2 Model”**
R. Gonzalez-Jimenez, G. D. Megias, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1407.8346 [nucl-th]
DOI:10.1103/PhysRevC.90.035501
Phys. Rev. C **90**, no. 3, 035501 (2014)
26. **“Angular distribution in two-particle emission induced by neutrinos and electrons”**
I. Ruiz Simo, C. Albertus, J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1407.7122 [nucl-th]
DOI:10.1103/PhysRevD.90.053010
Phys. Rev. D **90**, no. 5, 053010 (2014)
27. **“Relativistic effects in two-particle emission for electron and neutrino reactions”**
I. Ruiz Simo, C. Albertus, J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1405.4280 [nucl-th]
DOI:10.1103/PhysRevD.90.033012
Phys. Rev. D **90**, no. 3, 033012 (2014)
28. **“Nuclear effects in neutrino and antineutrino charged-current quasielastic scattering at MINERA kinematics”**
G. D. Megias, M. V. Ivanov, R. Gonzalez-Jimenez, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and J. M. Udías.
arXiv:1402.1611 [nucl-th]
DOI:10.1103/PhysRevD.91.039903, 10.1103/PhysRevD.89.093002
Phys. Rev. D **89**, no. 9, 093002 (2014), Erratum: [Phys. Rev. D **91**, no. 3, 039903 (2015)]
29. **“Charged-current quasielastic neutrino cross sections on ^{12}C with realistic spectral and scaling functions”**
M. V. Ivanov, A. N. Antonov, J. A. Caballero, G. D. Megias, M. B. Barbaro, E. Moya de Guerra and J. M. Udías.
arXiv:1312.5357 [nucl-th]
DOI:10.1103/PhysRevC.89.014607
Phys. Rev. C **89**, no. 1, 014607 (2014)
30. **“Off-shell effects in the relativistic mean field model and their role in CC (anti)neutrino scattering at MiniBooNE kinematics”**
M. V. Ivanov, R. Gonzalez-Jimenez, J. A. Caballero, M. B. Barbaro, T. W. Donnelly and J. M. Udías.
arXiv:1310.0751 [nucl-th]
DOI:10.1016/j.physletb.2013.10.001
Phys. Lett. B **727**, 265 (2013)
31. **“Relativistic description of final-state interactions in neutral-current neutrino and antineutrino cross sections”**
R. Gonzalez-Jimenez, J. A. Caballero, A. Meucci, C. Giusti, M. B. Barbaro, M. V. Ivanov and J. M. Udías.
arXiv:1307.4309 [nucl-th]

DOI:10.1103/PhysRevC.88.025502
Phys. Rev. C **88**, 025502 (2013)

32. **“Scaling properties of the pairing problem in the strong coupling limit”**
M. B. Barbaro, R. Cenni, A. Molinari and M. R. Quaglia.
arXiv:1306.2880 [nucl-th]
DOI:10.1016/j.aop.2013.07.002
Annals Phys. **337**, 221 (2013)
33. **“Neutrino and antineutrino CCQE scattering in the SuperScaling Approximation from MiniBooNE to NOMAD energies”**
G. D. Megias, J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1305.6884 [nucl-th]
DOI:10.1016/j.physletb.2013.07.004
Phys. Lett. B **725**, 170 (2013)
34. **“Lepton mass effects in the Bethe-Heitler process”**
M. B. Barbaro, C. Maieron and E. Voutier.
arXiv:1305.3873 [hep-ph]
DOI:10.1016/j.physletb.2013.08.063, 10.1016/j.physletb.2013.11.004
Phys. Lett. B **726**, no. 1-3, 505 (2013), Erratum: [Phys. Lett. B **727**, no. 4-5, 573 (2013)]
35. **“Superscaling in electron-nucleus scattering and its link to CC and NC QE neutrino-nucleus scattering”**
M. B. Barbaro, J. E. Amaro, J. A. Caballero, T. W. Donnelly, R. Gonzalez-Jimenez, M. Ivanov and J. M. Udias.
arXiv:1303.6508 [nucl-th]
DOI:10.1063/1.4919497
AIP Conf. Proc. **1663**, 090002 (2015)
36. **“Superscaling analysis and neutrino-induced charged-current pion production at MiniBooNE kinematics”**
M. V. Ivanov, A. N. Antonov, J. A. Caballero, M. B. Barbaro, E. Moya de Guerra and J. M. Udias.
Nucl. Theor. **32**, 82 (2013).
37. **“Relativistic descriptions of quasielastic charged-current neutrino-nucleus scattering”**
G. D. Megias, J. E. Amaro, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and R. Gonzalez-Jimenez.
Nucl. Theor. **32**, 61 (2013).
38. **“Neutral current (anti)neutrino scattering: relativistic mean field and superscaling predictions”**
R. Gonzalez-Jimenez, M. V. Ivanov, M. B. Barbaro, J. A. Caballero and J. M. Udias.
arXiv:1210.6344 [nucl-th]
DOI:10.1016/j.physletb.2012.11.065
Phys. Lett. B **718**, 1471 (2013)
39. **“Scaling ideas in neutrino scattering reactions: Application to the MiniBooNE experiment”**
J. A. Caballero, J. E. Amaro, M. B. Barbaro, T. W. Donnelly and J. M. Udias.
DOI:10.1088/1742-6596/366/1/012006
J. Phys. Conf. Ser. **366**, 012006 (2012).

40. **“Superscaling predictions for neutrino-induced charged-current charged pion production at MiniBooNE”**
M. V. Ivanov, J. M. Udias, A. N. Antonov, J. A. Caballero, M. B. Barbaro and E. M. de Guerra.
arXiv:1203.5970 [nucl-th]
DOI:10.1016/j.physletb.2012.03.072
Phys. Lett. B **711**, 178 (2012)
41. **“Meson-exchange currents and quasielastic antineutrino cross sections in the SuperScaling Approximation”**
J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1112.2123 [nucl-th]
DOI:10.1103/PhysRevLett.108.152501
Phys. Rev. Lett. **108**, 152501 (2012)
42. **“Meson-exchange Currents and Quasielastic Neutrino Cross Sections”**
M. B. Barbaro, J. E. Amaro, J. A. Caballero, T. W. Donnelly, J. M. Udias and C. F. Williamson.
arXiv:1110.4739 [nucl-th]
43. **“Are there hadronic bound states above the QCD transition temperature?”**
C. Ratti, R. Bellwied, M. Cristoforetti and M. Barbaro.
arXiv:1109.6243 [hep-ph]
DOI:10.1103/PhysRevD.85.014004
Phys. Rev. D **85**, 014004 (2012)
44. **“Relativistic Models for Quasi-Elastic Neutrino-Nucleus Scattering”**
M. B. Barbaro, J. E. Amaro, J. A. Caballero, T. W. Donnelly and J. M. Udias.
arXiv:1108.5202 [nucl-th]
DOI:10.1063/1.3700571
AIP Conf. Proc. **1441**, 417 (2012)
45. **“Nuclear effects in charged-current quasielastic neutrino-nucleus scattering”**
M. B. Barbaro.
arXiv:1108.2732 [nucl-th]
DOI:10.1088/1742-6596/336/1/012024
J. Phys. Conf. Ser. **336**, 012024 (2011)
46. **“Relativistic descriptions of final-state interactions in charged-current quasielastic neutrino-nucleus scattering at MiniBooNE kinematics”**
A. Meucci, M. B. Barbaro, J. A. Caballero, C. Giusti and J. M. Udias.
arXiv:1107.5145 [nucl-th]
DOI:10.1103/PhysRevLett.107.172501
Phys. Rev. Lett. **107**, 172501 (2011)
47. **“Connecting scaling with short-range correlations”**
D. Berardo, M. B. Barbaro, R. Cenni, T. W. Donnelly and A. Molinari.
arXiv:1105.0358 [nucl-th]
DOI:10.1103/PhysRevC.84.054315
Phys. Rev. C **84**, 054315 (2011)
48. **“Relativistic analyses of quasielastic neutrino cross sections at MiniBooNE kinematics”**
J. E. Amaro, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and J. M. Udias.
arXiv:1104.5446 [nucl-th]

49. **“Scaling Function, Spectral Function and Nucleon Momentum Distribution in Nuclei”**
A. N. Antonov, M. V. Ivanov, J. A. Caballero, M. B. Barbaro, J. M. Udias, E. Moya de Guerra and T. W. Donnelly.
arXiv:1104.0125 [nucl-th]
DOI:10.1103/PhysRevC.83.045504
Phys. Rev. C **83**, 045504 (2011)
50. **“Superscaling predictions for NC and CC quasi-elastic neutrino-nucleus scattering”**
J. E. Amaro, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1012.4265 [nucl-th]
DOI:10.1063/1.3644302
AIP Conf. Proc. **1382**, 167 (2011)
51. **“Meson-exchange currents and quasielastic neutrino cross sections in the Super-Scaling Approximation model”**
J. E. Amaro, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and C. F. Williamson.
arXiv:1010.1708 [nucl-th]
DOI:10.1016/j.physletb.2010.12.007
Phys. Lett. B **696**, 151 (2011)
52. **“Pionic correlations and meson-exchange currents in two-particle emission induced by electron scattering”**
J. E. Amaro, C. Maieron, M. B. Barbaro, J. A. Caballero and T. W. Donnelly.
arXiv:1008.0753 [nucl-th]
DOI:10.1103/PhysRevC.82.044601
Phys. Rev. C **82**, 044601 (2010)
53. **“Scaling Function and Nucleon Momentum Distribution”**
J. A. Caballero, M. B. Barbaro, A. N. Antonov, M. V. Ivanov and T. W. Donnelly.
arXiv:1004.4065 [nucl-th]
DOI:10.1103/PhysRevC.81.055502
Phys. Rev. C **81**, 055502 (2010)
54. **“Fermion propagators in space-time”**
M. B. Barbaro, D. Berardo, R. Cenni, T. W. Donnelly and A. Molinari.
arXiv:0910.2148 [nucl-th]
DOI:10.1103/PhysRevC.80.064320
Phys. Rev. C **80**, 064320 (2009)
55. **“Nuclear effects in neutrino-nucleus interactions”**
M. B. Barbaro.
arXiv:0910.1437 [nucl-th]
DOI:10.1088/1742-6596/205/1/012015
J. Phys. Conf. Ser. **205**, 012015 (2010)
56. **“Nuclear effects in electron reactions and their impact on neutrino processes”**
M. B. Barbaro, J. E. Amaro, J. A. Caballero, R. Cenni, T. W. Donnelly, A. Molinari and J. M. Udias.
arXiv:0909.2602 [nucl-th]

57. **“Neutrino Interactions Importance for Nuclear Physics”**
J. E. Amaro, C. Maieron, M. Valverde, J. Nieves, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and J. M. Udias.
arXiv:0909.1244 [nucl-th]
DOI:10.1063/1.3274166
AIP Conf. Proc. **1189**, 24 (2009)
58. **“Superscaling of non-quasielastic electron-nucleus scattering”**
C. Maieron, J. E. Amaro, M. B. Barbaro, J. A. Caballero, T. W. Donnelly and C. F. Williamson.
arXiv:0907.1841 [nucl-th]
DOI:10.1103/PhysRevC.80.035504
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59. **“Meson-exchange currents and final-state interactions in quasielastic electron scattering at high momentum transfers”**
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