

## PUBLICATIONS LIST for LAURA ELISA MARCUCCI

1. **High Precision Calculation of the Triton Ground State within the Hyperspherical Harmonics Expansion Basis**, A. Kievsky, L.E. Marcucci, S. Rosati, M. Viviani, Few-Body Systems, **22**, 1 (1997)
2. **An Alternative to the Faddeev and Yakubowsky Approaches to Three- and Four-Nucleons problems**, S. Rosati, A. Kievsky, M. Viviani, L.E. Marcucci, R. Schiavilla, W. Tornow, in Proceedings of the *Workshop on Electron Nucleus Scattering*, Centro Internazionale di Fisica dell'Elba, Marciana Marina, Isola d'Elba, Italy, July 1-5 1996, edited by O. Benhar and A. Fabrocini, p. 246
3. **Electromagnetic Structure of the Trinucleons**, L.E. Marcucci, D.O. Riska, R. Schiavilla, Phys. Rev. C **58**, 3069 (1998)
4. **Interactions, Currents and the Electromagnetic Structure of Light Nuclei**, L.E. Marcucci, R. Schiavilla, in *Themes in Strong Interactions*, edited by J.L. Goity (World Scientific, Singapore, 1998), p. 1
5. **Hyperspherical Harmonics Methods for Few-Nucleon Systems**, S. Rosati, A. Kievsky, M. Viviani, L.E. Marcucci, R. Schiavilla, in *Proceedings of the Second International Conference on Perspectives in Hadronic Physics*, International Centre for Theoretical Physics, Trieste, Italy, 10-14 May 1999, edited by S. Boffi, C. Ciofi degli Atti, M. Giannini (World Scientific, Singapore, 1999), p. 117
6. **Threshold Photo- and Electro-Disintegration of  $^3\text{He}$  and  $pd$  Radiative Capture**, M. Viviani, A. Kievsky, L.E. Marcucci, S. Rosati, R. Schiavilla, Phys. Rev. C **61**, 064001 (2000)
7. **A Realistic Determination of the  $^3\text{He} + p$  (hep) Astrophysical Factor**, L.E. Marcucci, R. Schiavilla, M. Viviani, A. Kievsky, S. Rosati, Phys. Rev. Lett. **84**, 5959 (2000)
8. **Weak Proton Capture on  $^3\text{He}$** , L.E. Marcucci, R. Schiavilla, M. Viviani, A. Kievsky, S. Rosati, J.F. Beacom, Phys. Rev. C **63**, 015801 (2000)
9. **Weak Proton Capture on  $^3\text{He}$  and the Solar Neutrino problem**, L.E. Marcucci, in *Advances in Quantum Many-Body Theories*, UMIST, Manchester, United Kingdom, 10-14 July 2000, edited by R.F. Bishop, K.A. Gernoth, N.R. Walet (World Scientific, Singapore, 2000), p. 169

10. **Electro-Weak Reactions of Few-Nucleon Systems**, L.E. Marcucci, in *Theoretical Nuclear Physics in Italy: Proceedings of the 8th Conference on Problems in Theoretical Nuclear Physics*, Cortona, Italy, 18-20 October 2000, edited by G. Pisent, S. Boffi, L. Canton, A. Covello, A. Fabrocini, S. Rosati (World Scientific, Singapore, 2000), p. 265
11. **The  $hep$  Reaction and the Solar Neutrino Problem**, L.E. Marcucci, Nucl. Phys. **A689**, 280 (2001)
12. **Electro-Weak Structure of Few-Body Nuclei**, L.E. Marcucci, in *Mesons and Light Nuclei: Proceedings of the 8th Conference*, Prague, Czech Republic, 2001, edited by J. Adam, P. Bydzovsky, J. Mares (AIP, New York, 2001), p. 89
13. **Theoretical Study of the  ${}^3\text{He}(\mu^-, \nu_\mu) {}^3\text{H}$  Capture**, L.E. Marcucci, R. Schiavilla, S. Rosati, A. Kievsky, M. Viviani, Phys. Rev. C **66**, 054003 (2002)
14. **The Three Nucleon Bound State Using Realistic Potential Models**, A. Nogga, A. Kievsky, H. Kamada, W. Glockle, L.E. Marcucci, S. Rosati, M. Viviani, Phys. Rev. C **67**, 034004 (2003)
15. **Parameter Free Effective Field Theory Calculation for the Solar Proton Fusion and  $hep$  Processes**, T.S. Park, L.E. Marcucci, R. Schiavilla, M. Viviani, A. Kievsky, S. Rosati, K. Kubodera, D.P. Min, M. Rho, Phys. Rev. C **67**, 055206 (2003)
16. **Coulomb Effects in Three- and Four-Nucleon Systems**, A. Kievsky, M. Viviani, L.E. Marcucci, S. Rosati, in *Few-Body Problems in Physics '02*, Few-Body Systems Suppl. **14**, 111 (2003)
17. **Variational Calculation of Three-Nucleon Electroweak Capture Reactions**, L.E. Marcucci, M. Viviani, A. Kievsky, S. Rosati, R. Schiavilla, in *Few-Body Problems in Physics '02*, Few-Body Systems Suppl. **14**, 319 (2003)
18. **Coulomb Effects in Three- and Four-Nucleon Systems**, A. Kievsky, M. Viviani, L.E. Marcucci, S. Rosati, *Theoretical Nuclear Physics in Italy: Proceedings of the 9th Conference on Problems in Theoretical Nuclear Physics*, Cortona, Italy, 9-12 October 2002, edited by S. Boffi, A. Covello, M. Di Toro, A. Fabrocini, G. Pisent, S. Rosati (World Scientific, Singapore, 2003), p. 249
19. **Electromagnetic and Weak Transitions in Light Nuclei**, M. Viviani, L.E. Marcucci, A. Kievsky, S. Rosati, R. Schiavilla, Eur. Phys. J. **A17**, 483 (2003)
20. **Three-Nucleon Electroweak Capture Reactions**, L.E. Marcucci, M. Viviani, A. Kievsky, S. Rosati, R. Schiavilla, in *Nuclear Dynamics: From Quarks to Nuclei*, Few-Body Syst. Suppl. **15**, 87 (2003)
21. **Recent Developments in Few-Nucleon Systems**, A. Kievsky, M. Viviani, L.E. Marcucci, S. Rosati, Nucl. Phys. **A737**, 61 (2004)

22.  **$Nd$  Scattering Including Electromagnetic Forces**, A. Kievsky, M. Viviani, L.E. Marcucci, Phys. Rev. C **69**, 014002 (2004)
23. **Polarization Transfer in  ${}^4\text{He}(\vec{e}, e'\vec{p}){}^3\text{H}$ : Is the Ratio  $G_{Ep}/G_{Mp}$  Modified in Nuclear Medium?**, R. Schiavilla, O. Benhar, A. Kievsky, L.E. Marcucci, M. Viviani, Phys. Rev. Lett. **94**, 072303 (2005)
24. **Electrodisintegration of  ${}^3\text{He}$  Below and Above Deuteron Breakup Threshold**, L.E. Marcucci, M. Viviani, R. Schiavilla, A. Kievsky, S. Rosati, Eur. Phys. J. **A24**, s1, 95 (2005)
25. **New Developments in the Study of Few-Nucleon Systems**, M. Viviani, A. Kievsky, L.E. Marcucci, S. Rosati, Nucl. Phys. **A751**, 226c (2005)
26. **Electromagnetic Structure of  $A=2$  and  $3$  Nuclei and the Nuclear Current Operator**, L.E. Marcucci, M. Viviani, R. Schiavilla, A. Kievsky, S. Rosati, Phys. Rev. C **72**, 014001 (2005)
27. **Electromagnetic Transitions for  $A = 3$  Nuclear Systems**, L.E. Marcucci, M. Viviani, R. Schiavilla, A. Kievsky, S. Rosati, AIP Conf. Proc. **768**, 105 (2005)
28. **Two-Body Electrodisintegration of  ${}^3\text{He}$  at High Momentum Transfer**, R. Schiavilla, O. Benhar, A. Kievsky, L.E. Marcucci, M. Viviani, Phys. Rev. C **72**, 064003 (2005)
29. **Electromagnetic Structure of Few-Body Nuclear Systems**, L.E. Marcucci, M. Viviani, A. Kievsky, S. Rosati, R. Schiavilla, *Theoretical Nuclear Physics in Italy: Proceedings of the 10th Conference on Problems in Theoretical Nuclear Physics*, Cortona, Italy, 6-9 October 2004, edited by S. Boffi, A. Covello, M. Di Toro, A. Fabrocini, G. Pisent, S. Rosati (World Scientific, Singapore, 2005), p. 147
30. **Variational Description of Bound States in Three- and Four-Nucleon Systems**, A. Kievsky, M. Viviani, L.E. Marcucci, S. Rosati, Few-Body Syst. **38**, 63 (2006)
31. **Variational Calculation on  $A=3$  and  $4$  Nuclei with Non-Local Potentials**, M. Viviani, L.E. Marcucci, S. Rosati, A. Kievsky, L. Girlanda, Few-Body Syst. **39**, 159 (2006)
32. **Modern Theories of Low-Energy Astrophysical Reactions**, L.E. Marcucci, Kenneth M. Nollett, R. Schiavilla, R.B. Wiringa, Nucl. Phys. **A777**, 111 (2006)
33. **Variational Description of Few-Nucleon Systems: Bound and Scattering States**, A. Kievsky, M. Viviani, L.E. Marcucci, S. Rosati, Int. J. Mod. Phys. **B20**, 5330 (2006)

34. **Isospin Mixing in the  ${}^4\text{He}$  Bound State and the Nucleon Strange Form Factor**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, S. Rosati, R. Schiavilla, *Theoretical Nuclear Physics in Italy: Proceedings of the 11th Conference on Problems in Theoretical Nuclear Physics*, Cortona, Italy, 11-14 October 2006, edited by A. Covello, L.E. Marcucci, S. Rosati, I. Bombaci (World Scientific, Singapore, 2007), p. 65
35. **Bound and Scattering States with Non-Local Potentials**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, S. Rosati, *Nucl. Phys.* **A790**, 46c (2007)
36. **Bound and Scattering States with Non-Local Potentials**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, R. Schiavilla, S. Rosati, *Few-Body Systems in Nuclear and Hadronic Physics: Results and Perspectives of the research Initiative IS PD32*, Padova, Italy, 8 February 2007, edited by L. Canton, A. Pascolini, (Imprimenda-Università degli Studi di Padova, 2007), p. 43
37. **Isospin Mixing in the Nucleon and  ${}^4\text{He}$  and the Nucleon Strange Electric Form Factor**, M. Viviani, R. Schiavilla, B. Kubis, R. Lewis, L. Girlanda, A. Kievsky, L.E. Marcucci, S. Rosati, *Phys. Rev. Lett.* **99**, 112002 (2007)
38. **A high precision variational approach to three- and four-nucleon bound and zero-energy scattering states**, A. Kievsky, S. Rosati, M. Viviani, L.E. Marcucci, L. Girlanda, *J. Phys. G: Nucl. Part. Phys.* **35**, 063101 (2008)
39.  **$N-d$  Elastic Scattering at Low Energy with Realistic Interactions**, L.E. Marcucci, L. Girlanda, A. Kievsky, S. Rosati, M. Viviani, *New Facet of Three Nucleon Force – 50 Years of Fujita Miyazawa Three Nucleon Force (FM50): Proceedings of The International Symposium on New Facet of Three Nucleon Force*, Tokyo, Japan, 29-31 October 2007, edited by H. Sakai, K. Sekigushi, B.F. Gibson, *AIP Conf. Proc.* **1011**, 103 (2008)
40. **Neutron Spin Rotation in  $\vec{n} - d$  Scattering**, R. Schiavilla, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, *Phys. Rev. C* **78**, 014002 (2008)
41. **Structure of  $A = 3$  Nuclear Systems Using Realistic Hamiltonians**, L.E. Marcucci, L. Girlanda, A. Kievsky, S. Rosati, M. Viviani, *Few-Body Syst.* **44**, 227 (2008)
42. **Quantum Monte Carlo calculations of magnetic moments and M1 transitions in  $A \leq 7$  nuclei including meson-exchange currents**, L.E. Marcucci, Muslema Pervin, Steven C. Pieper, R. Schiavilla, R.B. Wiringa, *Phys. Rev. C* **78**, 065501 (2008)
43. **Neutron-Triton Elastic Scattering**, M. Viviani, A. Kievsky, L. Girlanda, L.E. Marcucci, S. Rosati, *Few-Body Syst.* **45**, 119 (2009)

44. **Analysis of the Effects of Three-Nucleon Forces in  $A = 3, 4$  Systems**, A. Kievsky, M. Viviani, L. Girlanda, L.E. Marcucci, S. Rosati, Few-Body Syst. **45**, 115 (2009)
45.  **$N - d$  Elastic Scattering Using the Hyperspherical Harmonics Approach with Realistic Local and Non-Local Interactions**, L.E. Marcucci, A. Kievsky, L. Girlanda, S. Rosati, M. Viviani, Phys. Rev. C **80**, 034003 (2009)
46. **Hadronic Parity Violation in Few-Body Systems**, L. Girlanda, R. Schiavilla, M. Viviani, A. Kievsky, L.E. Marcucci, J. Phys. : Conf. Series **168**, 012003 (2009)
47. **Three-Nucleon Force Study in  $A = 3, 4$  Systems**, A. Kievsky, S. Rosati, M. Viviani, L.E. Marcucci, L. Girlanda, J. Phys. : Conf. Series **168**, 012004 (2009)
48.  **$N - d$  Elastic Scattering at Low-Energy with Local and Non-Local Realistic Nuclear Interactions**, L.E. Marcucci, L. Girlanda, A. Kievsky, S. Rosati, M. Viviani, J. Phys. : Conf. Series **168**, 012005 (2009)
49. **Comparative Study f Three-Nucleon force Models in  $A = 3, 4$  Systems**, A. Kievsky, M. Viviani, L. Girlanda, L.E. Marcucci, Phys. Rev. C **81**, 044003 (2010)
50. **Parity-violating asymmetry in the  ${}^3\text{He}(\vec{n}, p){}^3\text{H}$  reaction**, M. Viviani, R. Schiavilla, L. Girlanda, A. Kievsky, L.E. Marcucci, Phys. Rev. C **82**, 044001 (2010)
51. **Proton- ${}^3\text{He}$  elastic scattering at low energies and the “ $A_y$  puzzle”**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, S. Rosati, *19th International IUPAP Conference on Few-Body Problems in Physics*, EPJ Web of Conferences **3**, 05011 (2010)
52. **Thermal neutron captures on  $d$  and  ${}^3\text{He}$** , L. Girlanda, A. Kievsky, L.E. Marcucci, S. Pastore, R. Schiavilla, M. Viviani, Phys. Rev. Lett. **105**, 232505 (2010)
53. **Muon capture on deuteron and  ${}^3\text{He}$** , L.E. Marcucci, M. Piarulli, M. Viviani, L. Girlanda, A. Kievsky, S. Rosati, R. Schiavilla, Phys. Rev. C **83**, 014002 (2011)
54. **Muon capture on light nuclei**, L.E. Marcucci, M. Piarulli, Few-Body Syst. **49**, 35 (2011)
55. **Solar fusion corss sections. II. The  $pp$  chain and CNO cycles**, E.G. Adelberger *et al.*, Rev. Mod. Phys. **83**, 195 (2011)

56. **Neutron spin rotation in  $\vec{n} - d$  scattering (vol. 78, 014002, 2008)**, R. Schiavilla, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Phys. Rev. C **83**, 029902 (2011)
57. **Muon capture on deuteron and  $^3\text{He}$** , L.E. Marcucci, Few-Body Syst. **50**, 383 (2011)
58. **Two-body photodisintegration of  $^3\text{He}$  between 7 and 16 MeV**, W. Tornow, H.J. Karwowski, J.H. Kelley, R. Raut, G. Rusev, S.C. Stave, A.P. Tonchev, A. Deltuva, A.C. Fonseca, L.E. Marcucci, M. Viviani, A. Kievsky, J. Golak, R. Skibiński, H. Witala, R. Schiavilla, Phys. Lett. **B702**, 121 (2011)
59. **Benchmark calculation of  $n - ^3\text{H}$  and  $p - ^3\text{He}$  scattering**, M. Viviani, A. Deltuva, R. Lazauskas, J. Carbonell, A.C. Fonseca, A. Kievsky, L.E. Marcucci, S. Rosati, Phys. Rev. C **84**, 054010 (2011)
60. **Study of parity violating observables in few-nucleon systems**, M. Viviani, A. Baroni, R. Schiavilla, L. Girlanda, A. Kievsky, L.E. Marcucci, J. Phys.: Conf. Series **336**, 012003 (2011)
61. **Muon capture on light nuclei**, L.E. Marcucci, J. Phys.: Conf. Series **336**, 012026 (2011)
62. **Muon capture on  $A = 2$  and 3 nuclei**, L.E. Marcucci, Physics Procedia **17**, 145 (2011)
63. **Theoretical description of three- and four-nucleon scattering states using bound-state-like wave functions**, A. Kievsky, M. Viviani, L.E. Marcucci, Phys. Rev. C **85**, 014001 (2012)
64. **Chiral Effective Field Theory Predictions for Muon Capture on Deuteron and  $^3\text{He}$** , L.E. Marcucci, A. Kievsky, S. Rosati, R. Schiavilla, M. Viviani, Phys. Rev. Lett. **108**, 052502 (2012) Erratum: Phys. Rev. Lett. **121**, 049901 (2018)
65. **Muon capture on deuteron and  $^3\text{He}$ : a personal review**, L.E. Marcucci, Int. J. Mod. Phys. **A27**, 1230006 (2012)
66. **Inclusive neutrino scattering off the deuteron from threshold to GeV energies**, G. Shen, L.E. Marcucci, J. Carlson, S. Gandolfi, R. Schiavilla, Phys. Rev. C **86**, 035503 (2012)
67. **Electromagnetic structure of A=2 and 3 nuclei in chiral effective field theory**, M. Piarulli, L. Girlanda, L.E. Marcucci, S. Pastore, R. Schiavilla, M. Viviani, Phys. Rev. C **87**, 014006 (2013)
68. **Recent progress in ab-initio four-body scattering calculations**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Few-Body Syst. **54**, 647 (2013)

69. **Proton-proton weak capture in chiral effective field theory**, L.E. Marcucci, R. Schiavilla, M. Viviani, Phys. Rev. Lett. **110**, 192503 (2013) Erratum: Phys. Rev. Lett. **123**, 019901(E) (2019)
70. **Effect of Three-Nucleon Interactions in  $p-^3\text{He}$  Scattering**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Few-Body Syst. **54**, 885 (2013)
71. **Nuclear electromagnetic charge and current operators in Chiral EFT**, L. Girlanda, L.E. Marcucci, S. Pastore, M. Piarulli, R. Schiavilla, M. Viviani, PoS (CD12), 027 (2013)
72. **Theoretical studies of muon capture on light nuclei**, L.E. Marcucci, PoS (CD12), 099 (2013)
73. **Effect of Three-Nucleon Interactions in  $p-^3\text{He}$  Elastic Scattering**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Phys. Rev. Lett. **111**, 172302 (2013)
74. **Testing Nucleon-nucleon Potentials in Three- and Four-nucleon Scattering Observables**, A. Kievsky, M. Viviani, L.E. Marcucci, Few-Body Syst. **54**, 2395 (2013)
75. **JLab Measurement of the  ${}^4\text{He}$  Charge Form Factor at Large Momentum Transfer**, A. Comsonne *et al.* (The Jefferson Lab Hall A Collaboration), Phys. Rev. Lett. **112**, 132503 (2014)
76. **Chiral Effective Field Theory Analysis of Hadronic Parity Violation in Few-Nucleon Systems**, M. Viviani, A. Baroni, L. Girlanda, A. Kievsky, L.E. Marcucci, R. Schiavilla, Phys. Rev. C **89**, 064004 (2014)
77. **The Nuclear Matter Equation of State with Consistent Two- and Three-Body Perturbative Chiral Interactions**, L. Coraggio, J.W. Holt, N. Itaco, R. Machleidt, L.E. Marcucci, F. Sammarruca, Phys. Rev. C **89**, 044321 (2014)
78. **Study of Nucleonic Matter with a Consistent Two- and Three-Body Perturbative Chiral Interaction**, L. Coraggio, J.W. Holt, N. Itaco, R. Machleidt, L.E. Marcucci, F. Sammarruca, J. Phys. : Conf. Series **527**, 012010 (2014)
79. **Nuclear Electromagnetic Processes in ChEFT**, L. Girlanda, L.E. Marcucci, S. Pastore, M. Piarulli, R. Schiavilla, M. Viviani, J. Phys. : Conf. Series **527**, 012022 (2014)
80. **The Proton-Proton Weak Capture Reaction within Chiral Effective Field Theory**, L.E. Marcucci, J. Phys. : Conf. Series **527**, 012023 (2014)
81. **Electroweak Strucutre of Light Nuclei within Chiral Effective Field Theory**, L.E. Marcucci, Few-Body Syst. **55**, 615 (2014)

82. **Break-up Channels in Muon Capture on  ${}^3\text{He}$** , J. Golak, R. Skibiński, H. Witala, K. Topolnicki, A.E. Elmesheeb, H. Kamada, A. Nogga, L.E. Marcucci, Phys. Rev. C **90**, 024001 (2014)
83. **Muon capture on the deuteron and the neutron-neutron scattering length**, L.E. Marcucci, R. Machleidit, Phys. Rev. C **90**, 054001 (2014)
84. **Electromagnetic structure of  $A = 2$  and  $3$  nuclei in chiral effective field theory**, M. Piarulli, L. Girlanda, L.E. Marcucci, S. Pastore, R. Schiavilla, M. Viviani, PoS Bormio2014 040 (2014)
85. **Muon induced deuteron disintegration in three-dimensions**, K. Topolnicki, J. Golak, R. Skibiński, L.E. Marcucci, H. Witala, A.E. Elmesheeb, EPJ Web Conference **81**, 06010 (2014)
86. **Measurement of Double-Polarization Asymmetries in the Quasielastic  ${}^3\vec{\text{He}}(\vec{e}, e'd)$  Process**, M. Mihovilovic *et al.*, Phys. Rev. Lett. **113**, 232505 (2014)
87. **Astrophysical implications of the proton-proton cross section updates**, E. Tognelli, S. Degl'Innocenti, L.E. Marcucci, P.G. Prada Moroni, Phys. Lett. B **742**, 189 (2015)
88. **Toward order-by-order calculations of the nuclear and neutron matter equations of state in chiral effective field theory**, F. Sammarruca, L. Coraggio, J.W. Holt, N. Itaco, R. Machleidt, L.E. Marcucci, Phys. Rev. C **91**, 054311 (2015)
89. **Electroweak structure of light nuclei**, L.E. Marcucci, J. Phys. Conf. Ser. **580**, 012042 (2015)
90. **Electromagnetic structure of few-nucleon ground states**, L.E. Marcucci, F. Gross, M.T. Peña, M. Piarulli, R. Schiavilla, I. Sick, A. Stadler, J.W. Van Orden, M. Viviani, J. Phys. G: Nucl. Part. Phys. **43**, 023002 (2016)
91. **How well does the chiral expansion converge in nuclear and neutron matter**, F. Sammarruca, L. Coraggio, J.W. Holt, N. Itaco, R. Machleidt, L.E. Marcucci, PoS (CD2015) 026 (2016)
92. **Progress in the quest for a realistic three-nucleon force**, L. Girlanda, A. Kievsky, M. Viviani, L.E. Marcucci, PoS (CD2015) 103 (2016)
93. **Tuning the  $3N$  force from  $3N$  scattering data**, L. Girlanda, A. Kievsky, M. Viviani, L.E. Marcucci, EPJ Web of Conferences **113**, 04009 (2016)
94. **Break-up channels in muon capture on  ${}^3\text{He}$** , J. Golak, R. Skibiński, H. Witala, K. Topolnicki, A.E. Elmesheeb, H. Kamada, A. Nogga, L.E. Marcucci, EPJ Web of Conferences **113**, 04029 (2016)

95. **Application of few-nucleon physics in astrophysics**, M. Viviani, L.E. Marcucci, J. Phys. Conf. Ser. **703**, 012013 (2016)
96. **Chiral nucleon-nucleon forces in nuclear structure calculations**, L. Coraggio, A. Gargano, J.W. Holt, N. Itaco, R. Machleidt, L.E. Marcucci, F. Sammarruca, EPJ Web of Conferences **117**, 02001 (2016)
97. **Implication of the proton-deuteron radiative capture for Big Bang Nucleosynthesis**, L.E. Marcucci, G. Mangano, A. Kievsky, M. Viviani, Phys. Rev. Lett. **116**, 102501 (2016); Erratum: Phys. Rev. Lett. **117**, 049901 (2016)
98. **Tritium  $\beta$ -decay in chiral effective field theory** A. Baroni, L. Girlanda, A. Kievsky, L.E. Marcucci, R. Schiavilla, M. Viviani, Phys. Rev. C **94**, 024003 (2016)
99. **Muon capture on  $^3\text{H}$**  J. Golak, R. Skibiński, H. Witala, K. Topolnicki, H. Kamada, A. Nogga, L.E. Marcucci, Phys. Rev. C **94**, 034002 (2016)
100. **Local chiral potentials with  $\Delta$ -intermediate states and the structure of light nuclei**, M. Piarulli, L. Girlanda, R. Schiavilla, A. Kievsky, A. Lovato, L.E. Marcucci, Steven C. Pieper, M. Viviani, R.B. Wiringa, Phys. Rev. C **94**, 054007 (2016)
101. **Muon Capture on  $^3\text{H}$** , J. Golak, R. Skibiński, H. Witala, K. Topolnicki, H. Kamada, A. Nogga, L.E. Marcucci, Few-Body Syst. **58**, 16 (2017)
102. **Recent Progresses in Ab-Initio Studies of Low-Energy Few-Nucleon Reactions of Astrophysical Interest**, L.E. Marcucci, Few-Body Syst. **58**, 103 (2017)
103. **Three-Nucleon Force Effects in  $p-^3\text{H}$  and  $n-^3\text{He}$  Scattering**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Few-Body Syst. **58**, 110 (2017)
104. **Benchmark calculation of  $p-^3\text{H}$  and  $n-^3\text{He}$  scattering**, M. Viviani, A. Deltuva, R. Lazauskas, A.C. Fonseca, A. Kievsky, L.E. Marcucci, Phys. Rev. C **95**, 034003 (2017)
105.  **$\alpha + d \rightarrow {}^6\text{Li} + \gamma$  astrophysical S factor and its implications for Big Bang nucleosynthesis**, A. Grassi, G. Mangano, L.E. Marcucci, O. Pisanti, Phys. Rev. C **96**, 045807 (2017)
106. **JLab Measurements of the  ${}^3\text{He}$  Form Factors at Large Momentum Transfers**, A. Camsonne *et al.*, Phys. Rev. Lett. **119**, 162501 (2017)
107. **Light-nuclei spectra from chiral dynamics**, M. Piarulli, A. Baroni, L. Girlanda, A. Kievsky, A. Lovato, E. Lusk, L.E. Marcucci, Steven C. Pieper, R. Schiavilla, M. Viviani, R.B. Wiringa, Phys. Rev. Lett. **120**, 052503 (2018)

108. A high-efficiency gas target setup for underground experiments, and redetermination of the branching ratio of the 189.5 keV  $^{22}\text{Ne}(\text{p},\gamma)^{23}\text{Na}$  resonance, LUNA Collaboration, F. Ferraro *et al.*, Eur. Phys. J. A **54**, 44 (2018)
109. Recent progress in *ab-initio* studies of nuclear reactions of astrophysical interest with  $A \leq 3$ , L.E. Marcucci, J. Phys. Conf. Ser. **981**, 012019 (2018)
110. Three-nucleon force effects in  $A = 4$  scattering, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, J. Dohet-Eraly, Few-Body Syst. **59**, 73 (2018)
111. Momentum space treatment of inclusive neutrino scattering off the deuteron and trinucleons, J. Golak, R. Skibiński, K. Topolnicki, H. Witala, A. Grassi, H. Kamada, L.E. Marcucci, Phys. Rev. C **98**, 015501 (2018)
112. Grand Challenges in Nuclear Physics: A Long and Exciting Way To Go, L.E. Marcucci, Front. Phys. **6**, 78 (2018)
113. Local chiral interactions, the tritium Gamow-Teller matrix element, and the three-nucleon contact term, A. Baroni, R. Schiavilla, L.E. Marcucci, A. Kievsky, A. Lovato, S. Pastore, M. Piarulli, Steven C. Pieper, M. Viviani, R.B. Wiringa, Phys. Rev. C **98**, 044003 (2018)
114. Radiative pion capture in  $^2\text{H}$ ,  $^3\text{He}$ , and  $^3\text{H}$ , J. Golak, R. Skibiński, K. Topolnicki, H. Witala, A. Grassi, H. Kamada, A. Nogga, L.E. Marcucci, Phys. Rev. C **98**, 054001 (2018)
115. Non-symmetrized Hyperspherical Harmonics Method for Non-equal Mass Three-Body Systems, A. Nannini and L.E. Marcucci, Front. Phys. **6**, 122 (2018)
116. Measurement of double-polarization asymmetries in the quasi-elastic  $^3\vec{\text{He}}(\vec{e}, e'p)$  process, M. Mihovilovic *et al.*, Phys. Lett. B **788**, 117 (2019)
117. Momentum distributions and short-range correlations in the deuteron and  $^3\text{He}$  with modern chiral potentials, L.E. Marcucci, F. Sammarruca, M. Viviani, R. Machleidt, Phys. Rev. C **99**, 034003 (2019)
118. Radiative pion capture in  $^2\text{H}$ ,  $^3\text{He}$  and  $^3\text{H}$ , J. Golak, R. Skibinski, K. Topolnicki, H. Witala, A. Grassi, H. Kamada, A. Nogga, L.E. Marcucci, EPJ Web Conf. **199**, 05005 (2019)
119. The  $\alpha + d \rightarrow {}^6\text{Li} + \gamma$  reaction and the second Lithium puzzle, A. Grassi, L.E. Marcucci, EPJ Web Conf. **199**, 05016 (2019)
120. A Design for an Electromagnetic Filter for Precision Energy Measurements at the Tritium Endpoint, M.G. Betti *et al.*, Prog. Part. Nucl. Phys. **106**, 120 (2019)

121. **Local chiral interactions and magnetic structure of few-nucleon systems**, R. Schiavilla *et al.*, Phys. Rev. C **99**, 034005 (2019)
122. **Theoretical calculation of the  $p - {}^6\text{Li}$  radiative capture reaction**, A. Gnech, L.E. Marcucci, Nucl. Phys. A **987**, 1 (2019)
123. **Short-range three-nucleon interaction from  $A = 3$  data and its hierarchical structure**, L. Girlanda, A. Kievsky, M. Viviani, L.E. Marcucci, Phys. Rev. C **99**, 054003 (2019)
124. **Neutrino physics with the PTOLEMY project: active neutrino properties and the light sterile case**, The PTOLEMY collaboration (M.G. Betti *et al.*, JCAP **1907**, 047 (2019))
125. **Comparing proton momentum distributions in  $A = 2$  and  $3$  nuclei via  ${}^2\text{H}$   ${}^3\text{H}$  and  ${}^3\text{He}$  ( $e, e'p$ ) measurements** Jefferson Lab Hall A Tritium Collaboration (R. Cruz-Torres *et al.*, Phys. Lett. B **797**, 134890 (2019))
126. **Theoretical calculation of the  $p - {}^6\text{Li}$  radiative capture**, A. Gnech, L.E. Marcucci, Springer Proc. Phys. **219**, 355 (2019)
127. **Few-nucleon reactions of astrophysical interest: a review**, L.E. Marcucci, A. Gnech, A. Grassi, Springer Proc. Phys. **219**, 57 (2019)
128. **From response functions to cross sections in neutrino scattering off the deuteron and trinucleons**, J. Golak, R. Skibinski, K. Topolnicki, H. Witala, A. Grassi, H. Kamada, L.E. Marcucci, Phys. Rev. C **100**, 064003 (2019)
129. **Effective field theory descriptions of few-nucleon systems**, L. Girlanda, M. Gattobigio, A. Kievsky, L.E. Marcucci, M. Viviani, Springer Proc. Phys. **238**, 517 (2020)
130. **Four-Body Continuum with Three-Nucleon Forces**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Springer Proc. Phys. **238**, 471 (2020)
131. **Momentum distributions in  ${}^3\text{He}$  with chiral potentials** L.E. Marcucci, F. Sammarruca, M. Viviani, R. Machleidt, Springer Proc. Phys. **238**, 439 (2020)
132. **Five-Nucleon Systems with an Hyperspherical Harmonic Method**, J. Dohet-Eraly, M. Viviani, A. Kievsky, L.E. Marcucci, A. Gnech, Springer Proc. Phys. **238**, 163 (2020)
133. **Response functions and cross sections for inclusive neutrino scattering off  ${}^2\text{H}$ ,  ${}^3\text{H}$  and  ${}^3\text{He}$** , A. Grassi, J. Golak, R. Skibinski, K. Topolnicki, H. Witala, H. Kamada, L.E. Marcucci, SciPost Phys. Proc. **3**, 013 (2020)
134. **The Hyperspherical Harmonics method: a tool for testing and improving nuclear interaction models** L.E. Marcucci, J. Dohet-Eraly, L. Girlanda, A. Gnech, A. Kievsky, M. Viviani, Front. Phys. **8**, 69 (2020)

135. **Calculation of the  ${}^6\text{Li}$  ground state within the hyperspherical harmonic basis**, A. Gnech, M. Viviani, L.E. Marcucci, Phys. Rev. C **102**, 014001 (2020)
136. **Setup commissioning for an improved measurement of the  $\text{D}(\text{p},\gamma){}^3\text{He}$  cross section at Big Bang Nucleosynthesis energies: LUNA collaboration**, V. Mossa *et al.*, Eur. Phys. J. A **56**, 144 (2020)
137.  **$\text{n}+{}^3\text{H}$ ,  $\text{p}+{}^3\text{He}$ ,  $\text{p}+{}^3\text{H}$ , and  $\text{n}+{}^3\text{He}$  scattering with the hyperspherical harmonic method**, M. Viviani, L. Girlanda, A. Kievsky, L.E. Marcucci, Phys. Rev. C **102**, 034007 (2020)
138. **Response Functions and Differential Cross Sections for Neutrino Scattering off  ${}^2\text{H}$** , A. Grassi, J. Golak, R. Skibinski, K. Topolnicki, H. Witala, H. Kamada, L.E. Marcucci, Acta Phys. Polon. Supp. **13**, 841 (2020)
139. **Underground experimental study finds no evidence of low-energy resonance in the  ${}^6\text{Li}(\text{p},\gamma){}^7\text{Be}$  reaction**, D. Piatti *et al.*, Phys. Rev. C **102**, 052802 (2020)
140. **The baryon density of the Universe from an improved rate of deuterium burning**, V. Mossa *et al.*, Nature **587**, 210 (2020)
141. **Editorial: The Long-Lasting Quest for Nuclear Interactions: The Past, the Present and the Future**, L.E. Marcucci, Front. Phys. **8**, 609907 (2020)
142. **Unitary ambiguity of NN contact interactions and the 3N force**, L. Girlanda, A. Kievsky, L.E. Marcucci, M. Viviani, Phys. Rev. C **102**, 064003 (2020)
143. **Magnetic structure and radiative captures of few-nucleon systems: status and prospects**, L.E. Marcucci, R. Schiavilla, A. Gnech, M. Viviani, J. Phys. Conf. Ser. **1643**, 012055 (2020)
144. **Momentum Distributions and Short-Range Correlations in Few-Nucleon Systems Using Realistic Interactions**, L.E. Marcucci, M. Viviani, J. Phys. Conf. Ser. **1643**, 012143 (2020)
145. **Two- and three-nucleon contact interactions and ground-state energies of light- and medium-mass nuclei**, R. Schiavilla, L. Girlanda, A. Gnech, A. Kievsky, A. Lovato, L.E. Marcucci, M. Piarulli, M. Viviani, Phys. Rev. C **103**, 054003 (2021)
146. **Comparative study of  ${}^6\text{He}$   $\beta$ -decay based on different SRG evolved chiral interactions**, A. Gnech, L.E. Marcucci, R. Schiavilla, M. Viviani, Phys. Rev. C **104**, 035501 (2021)

147. **X17 boson and the  ${}^3\text{H}(p,e^+e^-){}^4\text{He}$  and  ${}^3\text{He}(n,e^+e^-){}^4\text{He}$  processes: A theoretical analysis**, M. Viviani, E. Filandri, L. Girlanda, C. Gustavino, A. Kievsky, L.E. Marcucci, and R. Schiavilla, Phys. Rev. C **105**, 014001 (2022)
148. **Implementation and optimization of the PTOLEMY transverse drift electromagnetic filter**, A. Apponi *et al.*, JINST **17**, P05021 (2022)
149. **Heisenbergs uncertainty principle in the PTOLEMY project: A theory update**, A. Apponi *et al.*, Phys. Rev. D **106**, 5 (2022)
150. **Muon capture on deuteron using local chiral potentials**, L. Ceccarelli, A. Gnech, L.E. Marcucci, M. Piarulli, and M. Viviani, Front. Phys. **10**, 1049919 (2023)
151. **Theoretical Study of the  $d(d,p){}^3\text{H}$  and  $d(d,p){}^3\text{He}$  Processes at Low Energies**, M. Viviani, L. Girlanda, A. Kievsky, D. Logoteta, L.E. Marcucci, Phys. Rev. Lett. **130**, 122501 (2023)
152. **Effect of the N3LO three-nucleon contact interaction on  $p - d$  scattering observables**, L. Girlanda, E. Filandri, A. Kievsky, L.E. Marcucci, M. Viviani, Phys. Rev. C **107**, L061001 (2023)
153. **Revisiting protonproton fusion in chiral effective field theory**, B. Acharya, L.E. Marcucci, L. Platter, J. Phys. G **50**, 095102 (2023)
154. **Nuclear physics midterm plan at Legnaro National Laboratories (LNL)**, M. Ballan *et al.*, Eur. Phys. J. Plus **138**, 709 (2023)
155. **Nuclear physics midterm plan at LNS**, C. Agodi *et al.*, Eur. Phys. J. Plus **138**, 1038 (2023)
156. **Role of three-body dynamics in nucleon-deuteron correlation functions**, M. Viviani *et al.*, Phys. Rev. C **108**, 064002 (2023)
157. **Study of the  $d(d,p){}^3\text{H}$  and  $d(d,n){}^3\text{He}$  processes at low energies**, M. Viviani, L. Girlanda, A. Kievsky, D. Logoteta, L.E. Marcucci, J. Phys. Conf. Ser. **2586**, 012076 (2023)