

List of Publications

Articles in Refereed Journals

- [59] M. Bashkanov *et al.* (A2 Collaboration at MAMI, 73 authors)
“Deuteron photodisintegration by polarized photons in the region of the $d^*(2380)$ ”
Physics Letters B **789**, 7 (2019)
- [58] M. Nanova *et al.* (CBELSA/TAPS Collaboration, 61 authors)
“The η' -carbon potential at low meson momenta”
The European Physical Journal A **54**, 182 (2018)
- [57] A. Käser *et al.* (A2 Collaboration at MAMI, 83 authors)
“First measurement of helicity-dependent cross sections in $\pi^0\eta$ photoproduction from quasi-free nucleons”
Physics Letters B **786**, 305 (2018)
- [56] P. Adlarson *et al.* (A2 Collaboration at MAMI, 79 authors)
“Measurement of the decay $\eta' \rightarrow \pi^0\pi^0\eta$ at MAMI”
Physical Review D **98**, 012001 (2018)
- [55] M. Dieterle, **D. Werthmüller** *et al.* (A2 Collaboration at MAMI, 84 authors)
“Photoproduction of π^0 mesons off protons and neutrons in the second and third nucleon resonance regions”
Physical Review C **97**, 065205 (2018)
- [54] S. Prakhov *et al.* (A2 Collaboration at MAMI, 89 authors)
“High-statistics measurement of the $\eta \rightarrow 3\pi^0$ decay at the Mainz Microtron”
Physical Review C **97**, 065203 (2018)
- [53] V. Sokhoyan *et al.* (A2 Collaboration at MAMI, 90 authors)
“Experimental study of the $\gamma p \rightarrow \pi^0\eta p$ reaction with the A2 setup at the Mainz Microtron”
Physical Review C **97**, 055212 (2018)
- [52] M. Dieterle *et al.* (A2 Collaboration at MAMI, 88 authors)
“First measurement of the polarization observable E and helicity-dependent cross sections in single π^0 photoproduction from quasi-free nucleons”
Physics Letters B **770**, 523 (2017)
- [51] V. L. Kashevarov *et al.* (A2 Collaboration at MAMI, 91 authors)
“Study of η and η' Photoproduction at MAMI”
Physical Review Letters **118**, 212001 (2017)
- [50] L. Witthauer *et al.* (A2 Collaboration at MAMI, 87 authors)
“Helicity-dependent cross sections and double-polarization observable E in η photoproduction from quasifree protons and neutrons”
Physical Review C **95**, 055201 (2017)
- [49] H. Al Ghouli *et al.* (GlueX Collaboration, 125 authors)
“Measurement of the beam asymmetry Σ for π^0 and η photoproduction on the proton at $E_\gamma = 9$ GeV”
Physical Review C **95**, 042201 (2017)
- [48] L. Witthauer *et al.* (CBELSA/TAPS Collaboration, 73 authors)
“Photoproduction of η mesons from the neutron: Cross sections and double polarization observable E ”
The European Physical Journal A **53**, 58 (2017)
- [47] P. Adlarson *et al.* (A2 Collaboration at MAMI, 95 authors)
“Measurement of the $\omega \rightarrow \pi^0 e^+ e^-$ and $\eta \rightarrow e^+ e^- \gamma$ Dalitz decays with the A2 setup at the Mainz Microtron”
Physical Review C **95**, 035208 (2017)

- [46] P. Adlarson *et al.* (A2 Collaboration at MAMI, 97 authors)
 “Measurement of the $\pi^0 \rightarrow e^+e^-\gamma$ Dalitz decay at the Mainz Microtron”
Physical Review C **95**, 025202 (2017)
- [45] V. Sokhoyan *et al.* (A2 Collaboration at MAMI, 77 authors)
 “Determination of the scalar polarizabilities of the proton using beam asymmetry Σ_3 in Compton scattering”
The European Physical Journal A **53**, 14 (2017)
- [44] S. Gardner *et al.* (A2 Collaboration at MAMI, 101 authors)
 “Photon asymmetry measurements of $\vec{\gamma}p \rightarrow \pi^0p$ for $E_\gamma = 320\text{--}650$ MeV”
The European Physical Journal A **52**, 333 (2016)
- [43] S. Friedrich *et al.* (CBELSA/TAPS Collaboration, 60 authors)
 “Momentum dependence of the imaginary part of the ω - and η' -nucleus optical potential”
The European Physical Journal A **52**, 297 (2016)
- [42] L. Witthauer *et al.* (A2 Collaboration at MAMI, 86 authors)
 “Insight into the Narrow Structure in η Photoproduction on the Neutron from Helicity-Dependent Cross Sections”
Physical Review Letters **117**, 132502 (2016)
- [41] A. Käser *et al.* (A2 Collaboration at MAMI, 69 authors)
 “Photoproduction of $\eta\pi$ pairs off nucleons and deuterons”
The European Physical Journal A **52**, 272 (2016)
- [40] M. Nanova *et al.* (CBELSA/TAPS Collaboration, 54 authors)
 “Determination of the real part of the η' -Nb optical potential”
Physical Review C **94**, 025205 (2016)
- [39] J. R. M. Annand *et al.* (A2 Collaboration at MAMI, 67 authors)
 “ T and F asymmetries in π^0 photoproduction on the proton”
Physical Review C **93**, 055209 (2016)
- [38] **D. Werthmüller**, L. Witthauer, D. I. Glazier and B. Krusche
 “Comment on “Evidence for narrow resonant structures at $W \approx 1.68$ GeV and $W \approx 1.72$ GeV in real Compton scattering off the proton””
Physical Review C **92**, 069801 (2015)
- [37] M. Dieterle *et al.* (A2 Collaboration at MAMI, 74 authors)
 “Photoproduction of π^0 -pairs off protons and off neutrons”
The European Physical Journal A **51**, 142 (2015)
- [36] S. Schumann *et al.* (A2 Collaboration at MAMI, 74 authors)
 “Threshold π^0 photoproduction on transverse polarised protons at MAMI”
Physics Letters B **750**, 252 (2015)
- [35] P. Adlarson *et al.* (A2 Collaboration at MAMI, 91 authors)
 “Measurement of π^0 photoproduction on the proton at MAMI C”
Physical Review C **92**, 024617 (2015)
- [34] A. Käser *et al.* (A2 Collaboration at MAMI, 74 authors)
 “The isospin structure of photoproduction of $\eta\pi$ pairs from the nucleon in the threshold region”
Physics Letters B **748**, 244 (2015)
- [33] A.V. Anisovich, E. Klempt, B. Krusche, V.A. Nikonov, A.V. Sarantsev, U. Thoma and **D. Werthmüller**
 “Interference phenomena in the $J^P = 1/2^-$ wave in η photoproduction”
The European Physical Journal A **51**, 72 (2015)
- [32] J. R. M. Annand *et al.* (A2 Collaboration at MAMI, 67 authors)
 “First measurement of target and beam-target asymmetries in the $\gamma p \rightarrow \pi^0\eta p$ reaction”
Physical Review C **91**, 055208 (2015)

- [31] M. Martemianov *et al.* (A2 Collaboration at MAMI, 71 authors)
 “A new measurement of the neutron detection efficiency for the NaI Crystal Ball detector”
Journal of Instrumentation **10**, T04001 (2015)
- [30] I. I. Strakovsky *et al.* (A2 Collaboration at MAMI, 74 authors)
 “Photoproduction of the ω meson on the proton near threshold”
Physical Review C **91**, 045207 (2015)
- [29] P. P. Martel *et al.* (A2 Collaboration at MAMI, 79 authors)
 “Measurements of Double-Polarized Compton Scattering Asymmetries and Extraction of the Proton Spin Polarizabilities”
Physical Review Letters **114**, 112501 (2015)
- [28] S. Costanza *et al.* (A2 Collaboration at MAMI, 68 authors)
 “Helicity dependence of the $\gamma^3\text{He} \rightarrow \pi X$ reactions in the $\Delta(1232)$ resonance region”
The European Physical Journal A **50**, 173 (2014)
- [27] C. S. Akondi *et al.* (A2 Collaboration at MAMI, 70 authors)
 “Measurement of the Transverse Target and Beam-Target Asymmetries in η Meson Photoproduction at MAMI”
Physical Review Letters **113**, 102001 (2014)
- [26] B. M. K. Nefkens *et al.* (A2 Collaboration at MAMI, 79 authors)
 “New measurement of the rare decay $\eta \rightarrow \pi^0\gamma\gamma$ with the Crystal Ball/TAPS detectors at the Mainz Microtron”
Physical Review C **90**, 025206 (2014)
- [25] T. C. Jude *et al.* (A2 Collaboration at MAMI, 72 authors)
 “ $K^+\Lambda$ and $K^+\Sigma^0$ photoproduction with fine center-of-mass energy resolution”
Physics Letters B **735**, 112 (2014)
- [24] **D. Werthmüller** *et al.* (A2 Collaboration at MAMI, 74 authors)
 “Quasifree photoproduction of η mesons off protons and neutrons”
Physical Review C **90**, 015205 (2014)
- [23] P. Aguar-Bartolomé *et al.* (A2 Collaboration at MAMI, 76 authors)
 “New determination of the η transition form factor in the Dalitz decay $\eta \rightarrow e^+e^-\gamma$ with the Crystal Ball/TAPS detectors at the Mainz Microtron”
Physical Review C **89**, 044608 (2014)
- [22] M. Dieterle *et al.* (A2 Collaboration at MAMI, 74 authors)
 “Photoproduction of π^0 Mesons off Neutrons in the Nucleon Resonance Region”
Physical Review Letters **112**, 142001 (2014)
- [21] M. Oberle *et al.* (A2 Collaboration at MAMI, 75 authors)
 “Measurement of the beam-helicity asymmetry I^\odot in the photoproduction of $\pi^0\pi^\pm$ pairs off protons and off neutrons”
The European Physical Journal A **50**, 54 (2014)
- [20] M. H. Sikora *et al.* (A2 Collaboration at MAMI, 79 authors)
 “Measurement of the $^1\text{H}(\vec{\gamma}, \vec{p})\pi^0$ Reaction Using a Novel Nucleon Spin Polarimeter”
Physical Review Letters **112**, 022501 (2014)
- [19] **D. Werthmüller** *et al.* (A2 Collaboration at MAMI, 72 authors)
 “Narrow Structure in the Excitation Function of η Photoproduction off the Neutron”
Physical Review Letters **111**, 232001 (2013)
- [18] L. Witthauer, **D. Werthmüller** *et al.* (A2 Collaboration at MAMI, 73 authors)
 “Quasi-free photoproduction of η -mesons off ^3He nuclei”
The European Physical Journal A **49**, 154 (2013)

- [17] P. Aguar-Bartolomé *et al.* (A2 Collaboration at MAMI, 78 authors)
 “Measurement of the $\gamma p \rightarrow K^0 \Sigma^+$ reaction with the Crystal Ball/TAPS detectors at the Mainz Microtron”
Physical Review C **88**, 044601 (2013)
- [16] M. Thiel *et al.* (A2 Collaboration at MAMI, 67 authors)
 “In-medium modifications of the ω meson near the production threshold”
The European Physical Journal A **49**, 132 (2013)
- [15] D. Hornidge *et al.* (A2 Collaboration at MAMI, 67 authors)
 “Accurate Test of Chiral Dynamics in the $\vec{\gamma} p \rightarrow \pi^0 p$ Reaction”
Physical Review Letters **111**, 062004 (2013)
- [14] P. Aguar Bartolomé *et al.* (A2 Collaboration at MAMI, 65 authors)
 “First measurement of the helicity dependence of ^3He photoreactions in the $\Delta(1232)$ resonance region”
Physics Letters B **723**, 71 (2013)
- [13] Y. Maghrbi *et al.* (A2 Collaboration at MAMI, 63 authors)
 “Double pion photoproduction off nuclei – Are there effects beyond final-state interaction?”
Physics Letters B **722**, 69 (2013)
- [12] J. Robinson *et al.* (A2 Collaboration at MAMI, 73 authors)
 “Measurements of $^{12}\text{C}(\vec{\gamma}, pp)$ photon asymmetries for $E_\gamma = 200\text{--}450$ MeV”
The European Physical Journal A **49**, 65 (2013)
- [11] M. Oberle *et al.* (A2 Collaboration at MAMI, 75 authors)
 “Measurement of the beam-helicity asymmetry I^\odot in the photoproduction of π^0 -pairs off the proton and off the neutron”
Physics Letters B **721**, 237 (2013)
- [10] Y. Maghrbi *et al.* (A2 Collaboration at MAMI, 63 authors)
 “Coherent photoproduction of π^0 - and η -mesons off ^7Li ”
The European Physical Journal A **49**, 38 (2013)
- [9] V. L. Kashevarov *et al.* (A2 Collaboration at MAMI, 71 authors)
 “Experimental study of the $\gamma p \rightarrow \pi^0 \pi^0 p$ reaction with the Crystal Ball/TAPS detector system at the Mainz Microtron”
Physical Review C **85**, 064610 (2012)
- [8] F. Pheron *et al.* (A2 Collaboration at MAMI, 74 authors)
 “Coherent photoproduction of η -mesons off ^3He – search for η -mesic nuclei”
Physics Letters B **709**, 21 (2012)
- [7] I. Jaegle *et al.* (CBELSA/TAPS Collaboration, 72 authors)
 “Quasi-free photoproduction of η -mesons off the deuteron”
The European Physical Journal A **47**, 89 (2011)
- [6] H. Berghäuser *et al.* (A2 Collaboration at MAMI, 70 authors)
 “Determination of the η -transition form factor in the $\gamma p \rightarrow p \eta \rightarrow p \gamma e^+ e^-$ reaction”
Physics Letters B **701**, 562 (2011)
- [5] H. Moeini *et al.* (EXL Collaboration, 28 authors)
 “First feasibility experiment for the EXL project with prototype detectors at the ESR storage ring”
Nuclear Instruments and Methods in Physics Research Section A **634**, 77 (2011)
- [4] V. L. Kashevarov *et al.* (A2 Collaboration at MAMI, 77 authors)
 “First measurement of the circular beam asymmetry in the $\vec{\gamma} p \rightarrow \pi^0 \eta p$ reaction”
Physics Letters B **693**, 551 (2010)
- [3] E. F. McNicoll *et al.* (A2 Collaboration at MAMI, 84 authors)
 “Experimental study of the $\gamma p \rightarrow \eta p$ reaction with the Crystal Ball detector at the Mainz Microtron (MAMI-C)”
Physical Review C **82**, 035208 (2010)

- [2] N. Kalantar-Nayestanaki *et al.* (EXL Collaboration, 31 authors)
“First Feasibility Study For EXL With Prototype Detectors At The ESR and Detector Simulations”
International Journal of Modern Physics E **18**, 524 (2009)
- [1] S. Ilieva *et al.* (EXL Collaboration, 28 authors)
“Feasibility studies of the EXL setup for FAIR using the GSI storage ring ESR”
The European Physical Journal Special Topics **150**, 357 (2007)

Articles in Conference Proceedings

- [4] **D. Werthmüller**
“Strangeness Photoproduction on Quasifree Neutrons”
Proceedings of the Workshop on the Physics of Excited Nucleons – NSTAR2015, May 2015, Osaka (Japan)
JPS Conference Proceedings **10**, 032008 (2016)
- [3] I. Keshelashvili, **D. Werthmüller** and L. Witthauer
“Quasi-free Photoproduction of η -Mesons off ^2H and ^3He ”
Proceedings of the Workshop on the Physics of Excited Nucleons – NSTAR2013, May 2013, Peñiscola (Spain)
International Journal of Modern Physics: Conference Series **26**, 1460114 (2014)
- [2] **D. Werthmüller** and L. Witthauer
“Investigation of the anomaly in η -photoproduction off the neutron”
Proceedings of the second International PrimeNet Workshop, September 2011, Jülich (Germany)
arXiv:1204.5509 [nucl-ex] (2012)
- [1] **D. Werthmüller**
“Investigation of the anomaly in η -photoproduction off the neutron”
Proceedings of the Workshop on the Physics of Excited Nucleons – NSTAR2009, April 2009, Beijing (PRC)
Chinese Physics C **33**, 1345 (2009)