

Životopis/Popis publikacija i predavanja

OSOBNI PODACI

Ime i prezime	KORNELIJA PASSEK-KUMERIČKI
Titula	Dr. sc.
Godina i ustanova stjecanja titule	2001, PMF, Sveučilište u Zagrebu
Adresa	Bijenička c. 54
Telefon	+385-1-4561032
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E-adresa	passek@irb.hr
Osobna web stranica	http://www.irb.hr/Ljudi/Kornelija-Passek-Kumericki
Državljanstvo/nacional.	Hrvatsko / Hrvatica

ŠKOLOVANJE

Godina	2001
Institucija	PMF, Sveučilište u Zagrebu
Zvanje	Dr. sc.
Radnja	"Primjena perturbativne kvantne kromodinamike na određivanje funkcije strukture piona", ("The application of the perturbative QCD to the pion form factor"), mentor: dr. Bene Nižić (Ruđer Bošković Institute, Zagreb)
Godina	1997
Institucija	PMF, Sveučilište u Zagrebu
Zvanje	Mr. Sc.
Radnja	"Ekskluzivna fotoprodukcija K i K^* mezona pri velikim prijenosima impulsa" ("Exclusive photoproduction of K and K^* mesons at large momentum transfer"), mentor: dr. Bene Nižić (Ruđer Bošković Institute, Zagreb)
Godina	1994
Institucija	PMF, Sveučilište u Zagrebu
Zvanje	Dipl. Ing. fizike
Radnja	"The computer-algebraic treatment of the hard exclusive reactions" ("Kompjutersko algebarska obrada tvrdih ekskluzivnih reakcija"), mentori: dr. Wolfgang Schweiger (Karl-Franzens Universität Graz), dr. Miroslav Furić (University of Zagreb)
Godina	1988 - 1994
Institucija	PMF, Sveučilište u Zagrebu
Školovanje	Studij (teorijske) fizike na Prirodoslovno-matematičkom fakultetu (PMF) u Zagrebu
Godina	1984 - 1988
Institucija	Matematičko-informatički obrazovni centar (MIOC), Zagreb
Školovanje	Srednja škola (gimnazija) s maturom

USAVRŠAVANJE

Godina	1994-1996
Institucija	PMF, Sveučilište u Zagrebu
Opis	Postdiplomski studij

JEZICI

MATERINSKI JEZIK	hrvatski
Jezik	engleski
Govor/Pisanje/Čitanje	<i>izvršno/izvršno/izvršno</i>
Jezik	njemački
Govor/Pisanje/Čitanje	<i>izvršno/izvršno/izvršno</i>
Jezik	francuski
Govor/Pisanje/Čitanje	<i>osnovno/osnovno/osnovno</i>

RADNO ISKUSTVO

Datumi (od-do) 04/2020 -do danas
 Ustanova zaposlenja Institut Ruđer Bošković (IRB), Zagreb
 Naziv radnog mjesta Viši znanstveni suradnik
 Područje rada *Teorijska fizika elementarnih čestica*

Datumi (od-do) 05/2005 - 03/2020
 Ustanova zaposlenja Institut Ruđer Bošković (IRB), Zagreb
 Naziv radnog mjesta Znanstveni suradnik
 Područje rada *Teorijska fizika elementarnih čestica*

Datumi (od-do) 09/2005 – 01/2007
 Ustanova zaposlenja University of Regensburg, Germany
 Naziv radnog mjesta Gostujući znanstvenik
 Područje rada *Teorijska fizika elementarnih čestica*

Datumi (od-do) 11/2001 – 10/2002
 Ustanova zaposlenja University of Wuppertal, Germany
 Naziv radnog mjesta Znanstvenik, postdoktorand
 Područje rada *Teorijska fizika elementarnih čestica*

Datumi (od-do) 04/2001 – 05/2005
 Ustanova zaposlenja Institut Ruđer Bošković (IRB), Zagreb
 Naziv radnog mjesta Asistent s doktoratom
 Područje rada *Teorijska fizika elementarnih čestica*

Datumi (od-do) 03/1994 – 04/2001
 Ustanova zaposlenja Institut Ruđer Bošković (IRB), Zagreb
 Naziv radnog mjesta Znanstveni novak
 Područje rada *Teorijska fizika elementarnih čestica*

PODRUČJE ISTRAŽIVANJA

Teorijska fizika elementarnih čestica

Glavne teme istraživanja:

- QCD fenomenologija; posebno, istraživanje ekskluzivnih procesa i primjena perturbativnih računa
- fenomenologija nekomutativnog Standardnog modela fizike elementarnih čestica

GOSTOVANJA NA STRANIM ZNANSTVENIM INSTITUCIJAMA

(SAMO BORAVCI DUŽI OD 3 MJESECA)

Datumi (od – do)	02/2010 – 06/2010
Institucija	University of Regensburg, Germany
Opis	Gost znanstvenik
Datumi (od – do)	09/2005 – 01/2007
Institucija	University of Regensburg, Germany
Opis	Gost znanstvenik
Datumi (od – do)	01/11/2001 – 31/10/2002
Institucija	University of Wuppertal, Germany
Opis	Znanstvenik (postdoktoralna pozicija)
Datumi (od – do)	03/1994 – 05/1994
Institucija	Institut fur Theoretische Physik, Karl Franzens Universitaet, Graz, Austria
Opis	Znanstvena suradnja (austrijska stipendija)
Datumi (od – do)	03/1993 – 06/1993
Institucija	Institut fuer Theoretische Physik, Karl Franzens Universitaet, Graz, Austria
Opis	Izrada diplomskog rada (austrijska stipendija)

MEĐUNARODNI ZNANSTVENI PROJEKTI
(VOĐENJE I SUDJELOVANJE)

2019 – 2024

Voditelj istraživačkog projekta na ustanovi:

STRONG-2020 project, EU Horizon 2020 research and innovation programme,
(EK-H2020-INFRAIA-2018-1, grant agreement No 824093,
JRA5-GPD-ACT: Generalized Parton Distributions)

2016 – 2019

Voditelj projekta (Dec 2016 – Jan 2018), suvoditelj projekta i voditelj radnih paketa
Obzor2020 (Širenje izvrsnosti i sudjelovanja) projekta:

*RBI-T-WINNING: Twinning a step forward of the Theoretical Physics Division
of the Ruđer Bošković Institute*, H2020 project (EU H2020 CSA-2015 number 692194)

Voditelji projekta: Fabrizio Nesti (Feb 2016 - Nov 2016)

Kornelija Passek-Kumerički (Dec 2016 - Jan 2018)

Vinko Zlatić (Feb 2018 – Jan 2019)

Institucije partneri:

RBI (institucija koordinator), SISSA (Italy), LPT Orsay (France),
Ludwig Maximilian University (Germany), Niels Bohr Institute (Denmark)

2008 – 2011

Sudionik na istraživačkom projektu:

Revealing Generalized Parton Distributions, DFG projekt;

Glavni istraživači: Prof. Dr. Maxim Polyakov (Uni. Bochum),

Dr. sc. Krešimir Kumerički (Uni. Zagreb);

Ostali lokalni sudionici: Dr.sc. Kornelija Passek-Kumerički

2005 – 2010

Sudionik na istraživačkom projektu:

QCD sum rules for exclusive decays of heavy hadrons;

Međuinstitutska suradnja (IRB i Uni Siegen) financirana od
Alexander von Humboldt fondacije;

Glavni istraživači: Dr. sc. Blaženka Melić

Prof. dr. Thomas Mannel (Uni. Siegen);

Ostali lokalni sudionici: Dr. sc. Goran Duplančić, Dr.sc. Kornelija Passek-Kumerički

2003 – 2006

Glavni istraživač na istraživačkom projektu: :

Hard exclusive photo- and electroproduction of heavy quarkonium,

Austrijsko-hrvatski bilateralni projekt;

Glavni istraživači: Dr. sc. Kornelija Passek-Kumerički,

Prof. Dr. Wolfgang Schweiger (Karl-Franzens Uni. Graz);

Ostali lokalni sudionici: Dr. sc. Blaženka Melić

2003 – 2005

Glavni istraživač na istraživačkom projektu:

Higher-order QCD corrections in exclusive processes - mesons and baryons,

DFG projekt (436 KRO 113/6/0-1);

Glavni istraživači: Prof. Dr. Klaus Goetze (Uni. Bochum),

Dr. sc. Kornelija Passek-Kumerički;

Ostali lokalni sudionici: Dr. sc. Goran Duplančić, Dr. sc. Bene Nižić

DOMAĆI ZNANSTVENI PROJEKTI
(VOĐENJE I SUDJELOVANJE)

2020 - 2024

Voditelj projekta:

Razotkrivanje strukture hadrona pomoću tvrdih ekskluzivnih procesa (REVESTRUCTURE)

HRZZ projekt IP-2019-04-9709

Istraživači: Dr. sc. Goran Duplančić, Dr.sc. Krešimir Kumerički, Dr.sc. Lech Szymanowski,
Dr. sc. Nikola Crnković, Dr. sc. Raj Kishore, Dr. Sc. Saad Nabeebaccus

2014 - 2018

Sudionik na istraživačkom projektu:

Physics of the Standard Model and Beyond; HRZZ projekt (HrZZ 5169)

Voditelj projekta: Dr. sc. Blaženka Melić

2007 - 2013

Sudionik na istraživačkom projektu:

Fundamental interactions in elementary particle physics and cosmology;

MZOŠ projekt (098-0982930-2864)

Voditelj projekta: Dr. sc. Branko Guberina (2007-2011),
Dr. sc. Nevenko Bilić (2012), Dr. sc. Goran Duplančić (2013)

2001 - 2006

Sudionik na istraživačkom projektu:

Fundamental interactions in elementary particle physics and cosmology;

MZT projekt (0098002)

Voditelj projekta: Dr. sc. Branko Guberina

1998 - 2000

Voditelj projekta:

Ekskluzivni procesi u kvantnoj kromodinamici; poticajni projekt za mlade znanstvenike,
MZT projekt (098463)

1996 - 2001

Sudionik na istraživačkom projektu:

Theoretical research of elementary particle properties; MZT projekt (00980102)

Voditelj projekta: Dr. sc. Branko Guberina

1994 - 1996

Sudionik na istraživačkom projektu:

Theoretical physics of fundamental interactions; MZT projekt (1-03-199, P009801)

Voditelj projekta: Dr. sc. Nikola Zovko, Dr. sc. Branko Guberina

ORGANIZACIJA DOMAĆIH I MEĐUNARODNIH ZNANSTVENIH DOGAĐANJA

- 2023 član Organizacijskog odbora međunarodnog skupa
REVESTRUCTURE,
Zagreb, Hrvatska, 10. - 12.7. 2023.
- 2021 član Organizacijskog odbora međunarodnog skupa
ACHT 2021 "*Perspectives in Particle, Cosmo- and Astroparticle Theory*",
online, 21. - 23.4. 2021.
- 2018 član Organizacijskog odbora međunarodnog skupa
"*Getting to Grips with QCD-Summer Edition*",
Primošten, Hrvatska, 18. - 22. 9. 2018.
- 2018 član Organizacijskog odbora međunarodne škole
"*QCD meets precision*",
LPT Orsay, France, 18. - 22.6. 2018.
- 2018 član Organizacijskog odbora međunarodnog skupa
"*Getting to Grips with QCD*",
Paris, France, 4. - 6.4. 2018.
- 2016 član Organizacijskog odbora međunarodnog skupa
ACHT 2016, "*Non-perturbative aspects of Quantum Field Theory*",
Čakovec, Croatia, 5. - 7.10. 2016.
- 2016 član Organizacijskog odbora međunarodne škole
"*Dense systems in QCD at asymptotical energies*",
LPT Orsay, France, 20.6 .- 1.7. 2016.
- 2014 ko-predsjedavajući (co-chair) međunarodnog skupa
International Workshop on Diffraction in High-Energy Physics
"*Diffraction 2014*", Primošten, 10. - 16.09. 2014.
- 2009 član Organizacijskog odbora međunarodnog skupa
"*Progress and Challenges in Particle Physics*",
Primošten, 29.09. - 3.10. 2009.
- 2001 član Organizacijskog odbora međunarodnog skupa
8th Adriatic Meeting "*Particle Physics in the new millenium*",
Dubrovnik, 4 - 14.09. 2001.

ČLANSTVA U ZNANSTVENIM ORGANIZACIJAMA

Član Hrvatskog fizikalnog društva

NASTAVA

2015 - 2017

vježbe iz Kvantne fizike, PMF, Sveučilište u Zagrebu

2006 - 2007 (zimski semestar)

vježbe iz *Math. Ergänzungen in der Physik*, Uni. Regensburg, Germany

2005 - 2006 (ljetni semestar)

vježbe iz *Struktur der Materie(III)*, Uni. Regensburg, Germany

RAD S MLADIM ZNANSTVENICIMA

2020 - : mentor doktoranda (HrZZ projekt DOK-2020-01-9883)

2010-2012: suradnja s doktorandom T. Lautenschlaeger (Uni. Regensburg, Germany); objavljen zajednički članak (D. Mueller, T. Lautenschlaeger, K. Passek-Kumericki, A. Schaefer, Nucl. Phys. B884 (2014) 438-546); doktorska disertacija T. Lautenschlaeger 2014.

2006-2008: suradnja s doktorandom G. Peters (Uni. Regensburg, Germany); objavljen zajednički članak (K. Passek-Kumerički, G. Peters, Phys. Rev. D78 (2008) 033009); G. Peters obranio doktorsku disertaciju u srpnju 2008.

DRUGE ZNANSTVENE DJELATNOSTI

Referiranje za JHEP, Eur.Phys.J C, Fizika B

Ocjenjivanje HRZZ projekata

Ocjenjivanje projektnih prijava za EC HORIZON natječaje

RAD NA RAČUNALU

Operacioni sistemi: Unix (Linux), MS Windows

Programiranje: Fortran

Software: Mathematica, MS Office

Članci u CC časopisima

- [1] Yoshitaka Hatta, Henry T. Klest, Kornelija Passek-K., Jakob Schoenleber, "Deeply virtual ϕ -meson production near threshold", submitted to Progress of Theoretical and Experimental Physics (PTEP), [[arXiv:2501.12343 \[hep-ph\]](#)].
- [2] G. Duplančić, P. Kroll, K. Passek-K., L. Szymanowski, "The twist-3 contribution to deeply virtual electroproduction of pions", Phys.Rev.D 109 (2024) 3, 034008, [[arXiv:2312.13164 \[hep-ph\]](#)].
- [3] M. Čuić, G. Duplančić, K. Kumerički, K. Passek-K., "NLO corrections to the deeply virtual meson production revisited: impact on the extraction of generalized parton distributions", JHEP 12 (2023) 192, [[arXiv:2310.13837 \[hep-ph\]](#)].
- [4] G. Duplancic, S. Nabeebaccus, K. Passek-Kumericki, B. Pire, L. Szymanowski, S. Wallon, "Probing chiral-even and chiral-odd leading twist quark generalized parton distributions through the exclusive photoproduction of a γp pair", Phys.Rev.D 107 (2023) 9, 094023, [[arXiv: 2302.12026 \[hep-ph\]](#)].
- [5] G. Duplancic, S. Nabeebaccus, K. Passek-Kumericki, B. Pire, L. Szymanowski, S. Wallon, "Accessing chiral-even quark generalised parton distributions in the exclusive photoproduction of $\gamma\pi^\pm$ pair with a large invariant mass in both fixed-target and collider experiments", JHEP 03 (2023) 241, [[arXiv: 2212.00655 \[hep-ph\]](#)].
- [6] P. Kroll, K. Passek-Kumericki, "Transition GPDs and exclusive electroproduction of $\pi\Delta(1232)$ final states", Phys. Rev. D107 (2023) 054009, [[arXiv: 2211.09474 \[hep-ph\]](#)].
- [7] P. Kroll, K. Passek-Kumericki, "Wide-angle photoproduction of the η' -meson and its gluon content", Phys. Rev. D105 (2022)034005, [[arXiv: 2111.08965 \[hep-ph\]](#)].
- [8] P. Kroll, K. Passek-Kumericki, "Wide-angle photo- and electroproduction of pions to twist-3 accuracy", Phys.Rev.D 104 (2021) 5, 054040 [[arXiv: 2107.04544 \[hep-ph\]](#)].
- [9] P. Kroll, K. Passek-Kumericki, "On some implications of the BaBar data on the $\gamma^*\eta'$ transition form factor", Phys. Lett. B793 (2019) 195-199 [[arXiv: 1903.06650 \[hep-ph\]](#)].
- [10] G. Duplancic, K. Passek-Kumericki, B. Pire, L. Szymanowski, S. Wallon, "Probing axial quark generalized parton distributions through exclusive photoproduction of a $\gamma\pi^\pm$ pair with a large invariant mass", JHEP 1811 (2018) 179, [[arXiv: 1809.08104 \[hep-ph\]](#)].
- [11] P. Kroll, K. Passek-Kumericki, "Twist-3 contributions to wide-angle photoproduction of pions", Phys. Rev. D97 (2018) 074023 [[arXiv:1802.06597\[hep-ph\]](#)].
- [12] G. Duplancic, D. Mueller, K. Passek-Kumericki, "Next-to-leading order corrections to deeply virtual production of pseudoscalar mesons", Phys. Lett. B771 (2017) 603-610, [[arXiv:1612.01937\[hep-ph\]](#)]
- [13] D. Mueller, T. Lautenschlager, K. Passek-Kumericki, A. Schaefer, "Towards a fitting procedure to deeply virtual meson production -- the next-to-leading order case --", Nucl.Phys. B884 (2014) 438-546, [[arXiv:1310.5394\[hep-ph\]](#)].
- [14] Peter Kroll, Kornelija Passek-Kumericki, "The η (η') gamma transition form factor and the gluon-gluon distribution amplitude", J.Phys. G40 (2013) 075005, [[arXiv:1206.4870\[hep-ph\]](#)].
- [15] K. Passek-Kumericki, G. Peters, "Nucleon Form Factors to Next-to-Leading Order with Light-Cone Sum Rules", Phys. Rev. D78 (2008) 033009, [[arXiv:0805.1758\[hep-ph\]](#)].
- [16] Kresimir Kumericki, Dieter Mueller, Kornelija Passek-Kumericki, "Sum rules and dualities for generalized parton distributions: Is there a holographic principle?", Eur. Phys. J C58 (2008) 193-215, [[arXiv:0805.0152 \[hep-ph\]](#)].
- [17] K. Kumericki, D. Mueller, K. Passek-Kumericki, "Towards a fitting procedure for deeply virtual Compton scattering at next-to-leading order and beyond", Nucl. Phys. B 794 (2008) 244-323, [[arXiv:hep-ph/0703179](#)].
- [18] K. Kumericki, Dieter Mueller, K. Passek-Kumericki, A. Schaefer "Deeply virtual Compton scattering beyond next-to-leading order: the flavor singlet case", Phys. Lett. B 648 (2007); 186-194 [[arXiv:hep-ph/0605237](#)].
- [19] Blazenka Melic, Kornelija Passek-Kumericki, Josip Trampetic "K \rightarrow pi gamma decay and space-time noncommutativity", Phys.Rev.D72 (2005) 057502 [[arXiv:hep-ph/0507231](#)].
- [20] Blazenka Melic, Kornelija Passek-Kumericki, Josip Trampetic "Quarkonia decays into two photons induced by the space-time non-commutativity", Phys.Rev.D72 (2005) 054004 [[arXiv:hep-ph/0503133](#)]
- [21] Blazenka Melic, Kornelija Passek-Kumericki, Josip Trampetic, Peter Schupp, Michael Wohlgenannt "The Standard model on non-commutative space-time: Strong interactions included", Eur.Phys.J.C42 (2005) 499-504 [[arXiv:hep-ph/0503064](#)].

- [22] Blazenka Melic, Kornelija Passek-Kumericki, Josip Trampetic, Peter Schupp, Michael Wohlgenannt "The Standard model on non-commutative space-time: Electroweak currents and Higgs sector", Eur.Phys.J.C42 (2005) 483-497 [[arXiv:hep-ph/0502249](#)].
- [23] A. P. Bakulev, K. Passek-Kumericki, W. Schroers, N. G. Stefanis, "Pion form factor in QCD: From nonlocal condensates to NLO analytic perturbation theory", Phys.Rev.D70 (2004) 033014 [[arXiv:hep-ph/0405062](#)].
- [24] H.W. Huang, R. Jakob, P. Kroll, K. Passek-Kumericki, "Signatures of the handbag mechanism in wide-angle photoproduction of pseudoscalar mesons", Eur.Phys.J. C33 (2004) 91-103 [[arXiv:hep-ph/0309071](#)].
- [25] B. Melic, D. Muller, K. Passek-Kumericki, "Next-to-next-to-leading order prediction for the photon-to-pion transition form factor", Phys. Rev. D 68 (2003) 014013 [[arXiv:hep-ph/0212346](#)].
- [26] Peter Kroll, Kornelija Passek-Kumericki, "The two-gluon components of the eta and eta' mesons to leading-twist accuracy", Phys. Rev. D 67 (2003) 054017 [[arXiv:hep-ph/0210045](#)].
- [27] B. Melic, B. Nizic, K. Passek, "A note on the factorization scale independence of the PQCD predictions for exclusive processes", Eur.Phys.J.C36 (2004) 453-458 [[arXiv:hep-ph/0107311](#)].
- [28] B. Melic, B. Nizic, K. Passek, "Brodsky-Lepage-Mackenzie scale for the pion transition form factor", Phys. Rev. D 65 (2002) 053020 [[arXiv:hep-ph/0107295](#)].
- [29] B. Melic, B. Nizic, K. Passek, "Complete next-to-leading order perturbative QCD prediction for the pion electromagnetic form factor", Phys. Rev. D60 (1999) 074004 [[arXiv:hep-ph/9802204](#)].
- [30] P. Kroll, M. Schuermann, K. Passek, W. Schweiger, "Exclusive Photoproduction of Large Momentum-Transfer K and K* Mesons", Phys. Rev. D55 (1997) 4315 [[arXiv:hep-ph/9604353](#)].

Članci u ostalim časopisima

- [31] A.T. Goritschnig, B. Melic, K. Passek-Kumericki, W. Schweiger, "Hard Exclusive Photoproduction of Phi and J/Psi Mesons", Prog. Part. Nucl. Phys.61 (2008) 173-174, [[arXiv:0711.3973 \[hep-ph\]](#)].
- [32] K. Passek-Kumericki, "Hard exclusive reactions and the two-gluon components of eta and eta' mesons", Fizika B13 (2004) 513-522 [[arXiv:hep-ph/0311039](#)].
- [33] B. Melic, B. Nizic, K. Passek, "On the complete next-to-leading order pQCD prediction for the pion form factor", Fizika B 8 (1999) 327 [[arXiv:hep-ph/9903426](#)].

ČLANCI U ZBORNICIMA

- Kornelija Passek-K., "Twist-3 contribution to deeply virtual electroproduction of pions", PoS Transversity2024 (2024) 042 [[arXiv:2411.04092 \[hep-ph\]](#)].
- Goran Duplanić, Saad Nabeebaccus, Kornelija Passek-K., Bernard Pire, Lech Szymanowski, Samuel Wallon, "Accessing Generalized Parton Distributions through $2 \rightarrow 3$ exclusive processes", PoS DIS2024 (2025) 228 [[arXiv:2410.03793 \[hep-ph\]](#)].
- Goran Duplanić, Saad Nabeebaccus, Kornelija Passek-K., Bernard Pire, Jakob Schönleber, Lech Szymanowski, Samuel Wallon, "Exclusive photoproduction of a photon-meson pair: A new class of observables to probe GPDs", PoS SPIN2023 (2024) 007 [[arXiv: 2401.17656 \[hep-ph\]](#)].
- K. Passek-K., "Deeply-virtual and photoproduction of mesons at higher-order and higher-twist", Contribution to Epiphany2023, Acta Phys.Polon.Supp. 16 (2023) 7, 7-A5., [[2308.09422 \[hep-ph\]](#)].
- S. Nabeebaccus, S. Wallon, G. Duplancic, K. Passek-Kumericki, B. Pire, L. Szymanowski, "Accessing GPDs Through the Exclusive Photoproduction of a Photon-Meson Pair with a Large Invariant Mass", Acta Phys.Polon.Supp. 16 (2023) 5, 16, Contribution to Diffflowx2022, [[arXiv: 2212.01034 \[hep-ph\]](#)].
- G. Duplancic, S. Nabeebaccus, K. Passek-Kumericki, B. Pire, L. Szymanowski, S. Wallon, "Accessing GPDs through the exclusive photoproduction of a γ -meson pair", Contribution to: DIS2022 [DOI: 10.5281/zenodo.7078119](#), [[arXiv: 2209.05380 \[hep-ph\]](#)].
- K. Passek-Kumericki, "On wide-angle photo- and electroproduction of pions to twist-3 accuracy", Rev.Mex.Fis.Supp. 3 (2022) 3, 0308113, prepared for 19th International Conference on Hadron Spectroscopy and Structure in memoriam Simon Eidelman (HADRON 2021), Mexico City, Mexico (online), 26-31 July 2021 [[arXiv:2203.12334](#)].
- G. Duplancic, K. Passek-Kumericki, B. Pire, L. Szymanowski, S. Wallon, "Probing Generalized Parton Distributions through the photoproduction of a $\gamma\pi\pi$ pair", Acta Phys.Polon.Supp. 12 (2019) 4, 855, [[arXiv: 1812.09307 \[hep-ph\]](#)].
- A.T. Goritschnig, B. Melic, K. Passek-Kumericki, W. Schweiger, "Hard Exclusive Phi and J/Psi Photoproduction off a Proton", Proceedings of Science DIS2014 170, [[arXiv:1411.0904\[hep-ph\]](#)].

10. K. Kumericki, D. Mueller, K. Passek-Kumericki, A. Schaefer, M. Meskauskas. "Accessing GPDs from experiment --- potential of a high-luminosity EIC ---", The EIC Science case: a report on the joint BNL/INT/JLab program "Gluons and the quark sea at high energies: distributions, polarization, tomography", Seattle, Washington, September 13 to November 19, 2010 / Boer, D. ; Diehl, M. ; Milner R. ; Venugopalan, R. ; Vogelsang W. (ur.). - Published by: Brookhaven National Laboratory, USA ; Institute of Nuclear Theory, University of Washington, USA ; Thomas Jefferson National Accelerator Facility, USA ; August 2011 (BNL-96164-2011, INT-PUB-11-034, JLAB-THY-11-1373) , 2011. 185-196. [[arXiv:1105.0899 \[hep-ph\]](https://arxiv.org/abs/1105.0899)].
11. K. Kumericki, D. Mueller, K. Passek-Kumericki, "A partonic interpretation of DVCS at small $x(Bj)$ ", in AIP Conf.Proc.1105 (2009) 367-372, prepared for Diffraction 2008: International Workshop on Diffraction in High Energy Physics, La Londe-les-Maures, France, 9-14 Sep 2008.
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16. K. Passek-Kumericki, "Hard exclusive processes and higher-order QCD corrections", in the Proc. of the 9th Adriatic Meeting "Particle Physics and the Universe", Dubrovnik, Croatia, 4-14 September 2003 (edited by J. Trampetic, J. Wess; Springer-Verlag, 2004), p. 399-414 [[arXiv:hep-ph/0407122](https://arxiv.org/abs/hep-ph/0407122)].
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1. M. Capua, R. Fiore, K. Kumericki, A. Papa, K. Passek-Kumericki, E. Tassi, G.P. Vacca, Proceedings of "Diffraction 2014: International Workshop on Diffraction in High Energy Physics", Primošten, Croatia, 10-16 September 2014"; Melville, New York, AIP Publishing, AIP Conf. Proc 1654, 2015.

1. K. Passek-K., "Deeply virtual lepton production of pseudoscalar mesons: the role of higher twist contributions", invited talk given at COMPASS Collaboration Meeting, CERN, 5 - 6 December 2024.
2. K. Passek-K., "[On DVMP: impact of NLO and higher-twist effects revisited](#)", invited talk given at the programme Hadron Physics 2030, Institut Pascal - Saclay, Orsay, France, 21 October - 25 November 2024.
3. K. Passek-K., "[DVMP at higher-order and higher-twist revisited](#)", invited talk given at the workshop Towards improved hadron tomography with hard exclusive reactions, ECT Trento, Italy, 5-9 August 2024.
4. K. Passek-K., "[Twist-3 contribution to deeply virtual electroproduction of pions](#)", invited talk given at Transversity 2024: 7th International Workshop on "Transverse phenomena in hard processes and the transverse structure of the proton", Trieste, Italy, 3-7 June 2024.
5. K. Passek-K., "[Meson production at NLO and higher-twist revisited](#)" and [photoproduction of mesons](#)", invited talk given at RBRC Workshop: Generalized Parton Distributions for Nucleon Tomography in the EIC Era, Brookhaven National Laboratory, USA, 17-19 January 2024.
6. K. Passek-K., "[Higher-twist contributions to deeply-virtual and photoproduction of mesons](#)", invited talk given at QCD Evolution Workshop 2023, Orsay, France, 22-26 May 2023.
7. K. Passek-K., "[Deeply-virtual and photoproduction of pseudoscalar mesons at higher-order and higher-twist](#)", invited talk given at DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects, East Lansing, Michigan, USA, 27-31 March 2023.
8. K. Passek-K., "[Accessing GPDs through meson production](#)", invited talk given at the Meeting of the Forschungsgruppe FOR 2926, Next Generation Perturbative QCD for Hadron Structure: Preparing for the Electron-Ion Collider, Regensburg, Germany, 16-17 February 2023.
9. K. Passek-K., "[Deeply-virtual and photoproduction of mesons at higher-order and higher-twist](#)", invited talk given at the conference XXIX Cracow Epiphany Conference on Physics at the Electron-Ion Collider and Future Facilities, Krakow, Poland, 16-19 January 2023.
10. K. Passek-Kumericki, "[Higher order and higher-twist aspects of DV and photoproduction of mesons](#)", invited talk given at the workshop 3DPartons week, Paris, France, 26-28 October 2022.
11. K. Passek-Kumericki, "Revealing Hadron Structures Through Hard Exclusive Processes", invited talk given at the Symposium "Relativistic Hadrons", Graz, Austria, 30 September 2022.
12. K. Passek-Kumericki, "[Photo- and electroproduction of pions and eta mesons at twist-3](#)", invited talk given at the workshop Towards improved hadron femtomography with hard exclusive reactions, Virginia Tech, USA (online), 18-22 July 2022.
13. K. Passek-Kumericki, "[On meson production, higher orders, DAs and all that](#)", invited talk given at the workshop Prospects for extraction of GPDs from global fits of current and future data, Warsaw, Poland, 22-25 January 2019.
14. K. Passek-Kumericki, "Introduction to Generalized Parton Distributions, DVCS and DVMP", invited talk given at the WE-Heraeus Physics School Diffractive and electromagnetic processes at high energies, Bad Honnef, Germany, 17-21 August 2015.
15. K. Passek-Kumericki, "GPDs from DVCS at L0 and beyond", invited talk given at the workshop Diffractive and electromagnetic processes at LHC, Trento, Italy, 4-8 January, 2010.
16. K. Passek-Kumericki, "Fitting GPDs to DVCS Data: At Next-to-Leading-Order and Beyond", invited talk given at the GPD 2008: Workshop on Hard Exclusive Reactions, Trento, Italy, 9-13 June, 2008.
17. K. Passek-Kumericki, "Towards a fitting procedure for DVCS at next-to-leading order and beyond", invited talk given at the 12th International Conference on Elastic and Diffractive Scattering Forward Physics and QCD, DESY, Hamburg, Germany, 21-25 May, 2007.
18. K. Passek-Kumericki, "Hard exclusive processes and higher-order QCD corrections", invited talk given at the 9th Adriatic Meeting, Dubrovnik, Croatia, 4-14 September 2003 .
19. K. Passek, "On the pQCD prediction for the pion form factor", invited talk given at the workshop Exclusive & Semiexclusive Processes at High Momentum Transfer, Joint INT/ Jefferson Lab Workshop, Newport News, Virginia, USA, 20-22 May 1999.
20. K. Passek, "On the complete next-to-leading order pQCD prediction for the pion form factor", invited talk given at the workshop Structure Functions and Hadronic Wave Functions, Bad Honnef, Germany, 14-18 December 1998.

Ostala predavanja (poster) na medunarodnim znanstvenim skupovima

1. K. Passek-K., "[Higher order and higher-twist aspects of exclusive meson production](#)", talk given at ACHT2023 workshop, Leibnitz (Wagna), Austria, 27-29 September 2023.
2. K. Passek-Kumericki, "[On wide-angle photo- and electroproduction of pions to twist-3 accuracy](#)", talk given at HADRON 2021, 19th International Conference on Hadron Spectroscopy and Structure in memoriam Simon Eidelman, Mexico City (Mexico), 26-31 July 2021 (online).
3. K. Passek-Kumericki, "[Discussing the light-meson DAs](#)", talk given at the workshop "Light-cone Distribution Amplitudes of Hadrons in QCD and their Applications", Mainz Institute for Theoretical Physics, Johannes Gutenberg University, Germany, 13-24 January 2020.
4. K. Passek-Kumericki, "[On exclusive hard processes with light mesons](#)", talk given at the workshop Getting to Grips with QCD, Paris, France, 4-6 April 2018.
5. K. Passek-Kumericki, "Exclusive hard processes with mesons", talk given at ACHT2017 meeting Non-Perturbative Methods in Quantum Field Theory, Zalakaros, Hungary, 20-22 September 2017 .
6. K. Passek-Kumericki, "Generalized Parton Distributions (GPDs) through DVCS and DVMP", talk given at ACHT2015 meeting Strong Interactions in Quantum Field Theory, Leibnitz, Austria, 7-9 October 2015 .
7. K. Passek-Kumericki, "*Higher-order QCD corrections to hard exclusive processes*", talk given at the Symposium on Quarks in Hadrons and Nuclei II, Rothenfels Castle, Oberwaelz, Austria, 15-20 September 2003 .
8. K. Passek-Kumericki, "*Hard exclusive reactions and the two-gluon components of the eta and eta' mesons*", talk given at the NAPP 2003 Conference, Dubrovnik, Croatia, 26-31 May, 2003 .
9. K. Passek-Kumericki, "*Two-gluon components of the eta and eta' mesons in the standard hard-scattering picture*", talk given at the Internationale Universitaetswochen fuer Theoretische Physik (Flavour Physics), Schladming, Austria, 22 - 28 February, 2003.
10. K. Passek-Kumericki, "*The leading-twist contributions of the two-gluon states in the hard processes involving eta and eta' mesons*", talk given at the DESY Theory Workshop on Quantum Chromodynamics, DESY, Hamburg, Germany, 24-27 September, 2002.
11. K. Passek-Kumericki, "*The leading-twist two gluon distribution amplitude in exclusive processes involving eta and eta' mesons*", talk given at the workshop on Spontaneously Broken Chiral Symmetry and Hard QCD Phenomena, Bad Honnef, Germany, 15-19 July, 2002.
12. K. Passek, "*Leading-twist two gluon distribution amplitude and exclusive processes involving eta and eta' mesons*", talk given at the workshop on Exclusive Processes at High Momentum Transfer, Jefferson Lab, Newport News, USA, 15-18 May, 2002.
13. K. Passek, "*BLM scale for the pion transition form factor*", talk given at the 8th Adriatic Meeting, Dubrovnik, Croatia, 4-14 September 2001.
14. K. Passek, "*BLM scale for the pion transition form factor*", poster presented at the 55th Scottish Universities Summer School in Physics, StAndrews, Scotland, U.K., 7-23 August 2001.
15. K. Passek, "*BLM scale setting for the pion transition form factor*", talk given at the Triangle Seminar on Particle Physics, Vienna, Austria, December 1-2, 2000.
16. K. Passek, "*On the complete next-to-leading order pQCD prediction for the pion form factor*", talk given at the conference Nuclear and Particle Physics with CEBAF at Jefferson Lab., Dubrovnik, Croatia, 3-10 November 1998.
17. K. Passek, "*On the complete next-to-leading order QCD corrections to the pion electromagnetic form factor*", talk given at the Triangle Seminar on Particle Physics, Vienna, Austria, 28-29 November 1997.
18. K. Passek, "*Exclusive photoproduction of large momentum-transfer K and K* mesons*", talk given at the Universitaetswochen fuer Kern- und Teilchen Physik, Schladming, Austria, March 1996.

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1. K. Passek-Kumericki, "*On exclusive hard processes with mesons and deeply virtual processes*", talk given at NCBJ, Warsaw, Oct 6th, 2017.
2. K. Passek-Kumericki, "*The Standard model on non-commutative space-time*", talk given at the University of Oslo, Sep 26th, 2007.
3. K. Passek-Kumericki, "*Hard exclusive processes and higher-order QCD corrections*", talk given at the University of Regensburg, Germany, Oct 21st, 2005.
4. K. Passek-Kumericki, "*Hard exclusive processes and higher order QCD corrections*", talk given at the University of Wuppertal, Germany, Nov 18th, 2003.

5. K. Passek-Kumericki, "*Perturbative QCD approach to the hard exclusive reactions and the two-gluon components of the eta and eta' mesons*", talk given at the Karl-Franzens Universitaet, Graz, Austria, June 25th, 2003 .
6. K. Passek-Kumericki, "*Hard exclusive processes and the two-gluon components of the eta and eta' mesons*", talk given at the University of Aachen, Germany, Oct 24th, 2002.
7. K. Passek-Kumericki, "*Transition form factor for the flavour singlet pseudoscalar meson*", talk given at the University of Wuppertal, Germany, Feb 13th, 2002.
8. K. Passek, "*BLM scale setting for the pion transition form factor*", talk given at the University of Bochum, Germany, June 18, 2001.
9. K. Passek, "*On the complete alphaS-corrections to the pion form factor*", talk given at the Institut fuer Theoretische Physik, Karl-Franzens Universitaet, Graz, Austria, May 28, 1997