

Životopis

1. Opći podaci:

Ime i prezime
Adresa e-pošte
Zvanje
Organizacija

Prof. dr.sc. (Dr.rer.nat.) BLAŽENKA MELIĆ
melic@irb.hr
znanstvena savjetnica u trajnom zvanju
Institut „Ruđer Bošković“

2. Obrazovanje (obrnuto kronološki)

12/1992- 12/1994 **Dr.sc. (Dr.rer.nat.)**, Universitaet Karlsruhe/Institut fuer Theoretische Teilchenphysik, teorijska fizika čestica

10/1986- 1/1991 **Dipl.ing.fizike.** (Mag.Phys.), Sveučilište u Zagrebu, teorijska fizika čestica

3. Radno iskustvo (obrnuto kronološki)

Danas:

od 7/2017- **Znanstvena savjetnica trajnom zvanju, Institut „Ruđer Bošković“**

11/2014 – 11/2019 **Naslovno nastavno-znanstveno zvanje redovite profesorice**, Sveučilište u Rijeci

od 9/2016 – **Predstojnica Zavoda za teorijsku fiziku**

od 3/2013 – **Voditeljica Grupe za fiziku čestica i kozmologiju**

Prijašnje radno iskustvo:

7/2012 - 7/2017 Znanstvena savjetnica, Institut „Ruđer Bošković“

6/2006 - 7/2012 Viša znanstvena suradnica, Institut „Ruđer Bošković“

12/2002 - 6/2006 Znanstvena suradnica, Institut „Ruđer Bošković“

12/1994 -12/2002 Viša asistentica, Institut „Ruđer Bošković“

4/1991 -12/1994 Asistentica, Institut „Ruđer Bošković“

4. Profesionalno, znanstveno, akademsko iskustvo i postignuća

a. Projekti

2/2020-2/2024 **voditeljica** znanstvenog projekta „Raspadi i vremena života teških hadrona“ – financirano preko Hrvatske zaklade za znanost (HrZZ) - 894.000 kn

6/2018 - 6/2020 **voditeljica** strukturnog projekta "Sinergijom do uspjeha: RBI-T-WINNING i ESIF udruženi u jačanju izvrsnosti Zavoda za teorijsku fiziku Instituta Ruđer Bošković (RBI-TWINN-SIN), financirano od Europske Unije kroz Europski regionalni fond za razvoj – operativni program konkurentnost i kohezija (KK.01.1.1.06)– 1.500.000 kn

10/2014 - 9/2018 **voditeljica** znanstvenog projekta "Fizika unutar i izvan Standardnog modela", financirano preko Hrvatske zaklade za znanost (HrZZ) – 770.000 kn

2/2017- 3/2021 suradnica na znanstvenom projektu "Fizika teraskale na LHCu i u svemiru", financirano preko Hrvatske zaklade za znanost (HrZZ) – 640.000 kn

2005-2010 **voditeljica** znanstvenog projekta "QCD sum rules for exclusive decays of heavy hadrons", institucijska suradnje između Instituta Ruđer Bošković i Sveučilišta u Siegen (Prof. Thomas Mannel) kroz međunarodni projekt Alexander von Humboldt fondacije – 50.000 eur

1/2007-3/2014 suradnica na znanstvenom projektu "Temeljne interakcije u fizici elementarnih čestica i kozmologiji" 098-0982930-2864 – 1.300.000 kn

2009-2010 **voditeljica** bilateralnog hrvatsko-francuskog COGITO projekta "Final state interactions in nonleptonic D- and B-decays"

2004-2006 suradnica na hrvatsko-austrijskom bilateralnom projektu "Hard exclusive photo- and electroproduction of heavy quarkonium"

2003-2005 suradnica na DFG projektu (436 KRO 113/6/0-1) "Higher-order QCD corrections in exclusive processes - mesons and baryons"

b. Znanstveno-istraživačke potpore

4-6/2018 Alexander von Humboldt financiranje (Njemačka)

10/2012 -4/2013 Fulbrightova stipendija (SAD)

5/2001-10/2002 Alexander von Humboldt stipendija (Njemačka)

c. Mentorsko iskustvo

Doktorand - Domagoj Lejak, Mag.Phys. obranjena tema: "Testing of the Standard Model in heavy quark decays", 2/2017 - predviđeni datum doktoriranja 12/2020, project DOK-2015-10-6029 (Fizika unutar i van Standardnog modela)

Poslijedoktorandi – Monalisa Patra 2015-2017

- Kenji Nishiwaki 2018-2019

d. Suradnja s akademskom zajednicom

Posjeti i suradnje:

Od 2005 - kraći boravci na **Universität Siegen**, Fakultät IV/Department Physik (prof. Th. Mannel, prof. A. Khodjamirian - 6 zajedničkih radova, 1 rad u pripremi)

Od 2013- kraći boravci na **LPT Orsay** (dr. Damir Becirevic – 3 zajednička rada)

4-6/2018 **Universität Mainz**, Institut für Physik (prof. M. Neubert, prof. J. Koerner – 1 zajednički rad, 1 rad u pripremi) / Alexander von Humboldt fondacija

10/2012-4/2013 **University of California Riverside**, USA (prof. J. Wudka – 3 zajednička rada, prof. E. Ma -1 zajednički rad) / Fulbrightova fondacija

11-12/2012 **Jožef Stefan Institute**, Ljubljana (prof. S.Fajfer – 2 zajednička rada)

11-12/2008 **Technion**, Haifa, Israel (prof. G. Eilam – 1 zajednički rad)

8/2007 **CERN**, Geneva (prof. R. Fleischer)

11/2002-5/2003 **Universität Karlsruhe**, Institut für theoretische Teilchenphysik (prof. Th. Mannel, prof A. Khodjamirian)

5/2001- 10/2002 **Universität Mainz**, Institut für Physik (prof. J. Koerner – 4 zajednička rada) i Universität Wuerzburg , Institut für Theoretische Physik und Astrophysik (prof. R. Rueckl – 2 rada) / Alexander von Humboldt fondacija

4/1999 - 6/1999 **Universität Mainz**, Institut für Physik (prof. J. Koerner)

12/1992-11/1994 **Universität Karlsruhe**, Institut für theoretische Teilchenphysik (prof. H. Pilkuhn, PhD mentor– 2 rada)

e. Ostale znanstvene aktivnosti

Uredništvo i recenziranje u znanstvenim časopisima

2012 –2017 članica uredništva u *The Scientific World Journal* u dijelu iz područja fizike visokih energija

2004 – 2010 - pridružena urednica znanstvenog časopisa "Fizika B"

učestalo **recenziranje** (više od 100 radova) za slijedeće časopise:

"Nuclear Physics B" (from 2014-)

"European Physical Journal A" (od 2012-)

"Physical Review Letters" (od 2005. god.)

"Physical Review D" (od 2004. god.),

"European Physical Journal C" (od 2004. god.)

"Journal of Physics G: Nuclear and Particle Physics" (od 2001. god.)

Članstva u znanstvenim organizacijama i tijelima, povjerenstvima i odborima

2019 – *danas* članica Povjerenstva za suradnju s Europskom organizacijom za nuklearna istraživanja (CERN) u Ministarstvu znanosti i obrazovanja

2013-*danas* članica Znanstvenog vijeća Instituta Ruđer Bošković

2013-*danas* zamjenica koordinatora IRB-a za suradnju s PMF-om

2012 članica O-ZIP-a u počecima (do odlaska na Fulbright stipendiju u SAD)

2011-2014 voditeljica Povjerenstva za nabavu računalne opreme IRB-a

2007-2009 članica Upravnog odbora Kluba hrvatskih humboldtovaca

članica Kluba hrvatskih humboldtovaca

članica Hrvatskog fizikalnog društva

Nastava:

Od 2016/17 poslijediplomski kolegij "Fizika elementarnih čestica" na Sveučilištu u Zagrebu - nositeljica kolegija

2014 -2016 diplomski kolegij "Fizika elementarnih čestica" na Sveučilištu u Rijeci - nositeljica kolegija

2005/2006-2016 poslijediplomski kolegij "Efektivne teorije polja i fizika teških kvarkova" na Sveučilištu u Zagrebu - inicijatorica i nositeljica kolegija

2012-2013/ lj.sem poslijediplomski kolegij "Advanced quantum mechanics and quantum field theory" na University of California Riverside, USA - nositeljica kolegija

2005-2006/ lj.sem diplomski kolegij "Fizika elementarnih čestica" na Sveučilištu u Zagrebu

1991-1992/ lj.sem diplomski kolegij "Uvod u strukturu materije" na Sveučilištu u Zagrebu

Organizacija konferencija:

2019 članica organizacijskog odbora međunarodne konferencije "Bridging perturbative and non-perturbative physics", Primošten, 7-9. listopada 2019

2018 članica advisory board-a međunarodne konferencije International Conference "LHC days in Split", Split, 17 -22. Sept 2018;

2017 - članica organizacijskog odbora međunarodnog workshopa „Current Trends in Flavor Physics“, Paris, France, 29 – 31 March 2017

2016 članica advisory board-a međunarodne konferencije International Conference "LHC Days in Split", Split, Croatia, Sept. 19-24 2016

2014 članica advisory board-a međunarodne konferencije International Conference "LHC Days in Split", Split, Croatia, Sept. 29 - Oct. 4 2014

2010 - članica organizacijskog odbora međunarodne konferencije 3rd International Conference on Nuclear and Particle Physics with CEBAF at Jefferson Lab, NAPP 2010, Dubrovnik, 3-8. listopada 2010

2009 - supredsjedateljica međunarodnog skupa "Progress and Challenges in Particle Physics", Primošten, 29. rujna - 03. listopada 2009

2006 - članica organizacijskog odbora međunarodne konferencije "2006 LHC days in Split", Split, 2-7. listopada 2006

CITIRANOST (SLAC HEP INSPIRE database, 1/2020):

- ukupan broj publiciranih članaka: **44** (41 CC → 40 u Q1)

+ 17 u CC recenziranim zbornicima

- ukupan broj radova u zbornicima: **34**

- ukupna citiranost: **>= 1440**

- prosječna citiranost po publiciranom članku: **31**

- h-indeks: **23**

Članci u CC časopisima (IF & Q distribucija) :

16 članaka u *Phys. Rev. D*, IF = 4.69, Q1;

9 članaka u *Eur. Phys. J. C*, IF = 5.08, Q1;

5 članaka u *Phys. Lett.B*, IF = 6.13, Q1;

7 članaka u *JHEP*, IF = 6.1, Q1;

2 članaka u *J.Phys.B*, IF = 2.03, Q1;

1 članak u **Nucl.Phys.B**, IF = 3.92 , Q1;

1 članak u **Phys. Lett.A**, IF = 1.68, Q2

PREDAVANJA:

- pozvana plenarna predavanja na međunarodnim konferencijama: **8**

- pozvana predavanja na međunarodnim konferencijama: **27**

- ostala predavanja na međunarodnim konferencijama: **6**

- seminari na stranim institucijama: **16**

LISTA PUBLIKACIJA

A1: Članci u CC časopisima

1. S. Groote, J. Koerner, , B. Melić: A new angle on an old problem: Helicity approach to neutron beta decay in the Standard Model, Eur.Phys.J. C79 (2019) no.11, 948.
2. D. Lejnak, B. Melić: $|V_{ub}|$ determination and testing of lepton flavour universality in semileptonic $B_c \rightarrow D^{(*)}$ decays, JHEP 02 (2020) 171.
3. D. Lejnak, B. Melić, M.Patra: On the lepton flavour universality in semileptonic $B_c \rightarrow \eta(c), J/\psi$ decays, JHEP 1905 (2019) 094
4. S. Fajfer, B. Melić, M.Patra: Testing spin-2 mediator in $b \rightarrow s \mu^+ \mu^-$, Phys.Rev. D97 (2018) no.9, 095036.
5. D. Bečirević, B. Melić, M. Patra, O. Sumensari, Seeking the CP-odd Higgs via $h \rightarrow \eta(c,b) \ell^+ \ell^-$, Phys.Rev. D97 (2018) no.1, 015008.
6. O.Antipin, B. Melić: Revisiting the decoupling effects in the running of the Cosmological Constant, Eur.Phys.J. C77 (2017) no.9, 583.
7. B. Melić, M. Patra: Exploring the Top-Higgs FCNC Couplings at Polarized Linear Colliders with Top Spin Observables, JHEP 1701 (2017) 048.
8. G. Duplanić, B. Melić: Form factors of $B, B_s \rightarrow \eta^{(\prime)}$ and $D, D_s \rightarrow \eta^{(\prime)}$ transitions from QCD light-cone rules, JHEP 1511 (2015) 138.
9. D. Bečirević, G. Duplanić, B. Klajn, B. Melić and F. Sanfilippo: Lattice QCD and QCD sum rule determination of the decay constants of $\eta_c, J/\psi$ and h_c states, Nucl.Phys. B883 (2014) 306-327.
10. S. Bhattacharya, B. Melić and J. Wudka: Pionic Dark Matter, JHEP 1402 (2014) 115.
11. E. Ma and B. Melić: Updated S3 model of quarks, Phys. Lett. B 725 (2013) 402
12. S. Fajfer, J.F. Kamenik and B. Melić: Discerning New Physics in Top-Antitop Production using Top Spin Observables at Hadron Colliders, JHEP 1208 (2012) 114.
13. S. Groote, J.G. Koerner, B. Melić and S. Prelovšek: Survey of top quark polarization at a polarized linear e^+e^- collider, Phys.Rev. D 83 (2011) 054018.

14. G. Eilam, B. Melić and J. Trampetić: CP violation and the 4th generation, Phys. Rev. D 80 (2009)116003.
15. G. Duplančić and B. Melić: B,Bs \rightarrow K form factors: An update of light-cone sum rule results, Phys. Rev. D 78 (2008) 054015.
16. G. Duplančić, A. Khodjamirian, Th. Mannel, B. Melić and N. Offen: Light-cone sum rules for B \rightarrow pi form factors revisited, JHEP 0804 (2008) 014.
17. A. Khodjamirian, Th. Mannel, M. Melcher and B. Melić: Annihilation effects in B \rightarrow pi pi from QCD light-cone sum rules, Phys. Rev. D 72 (2005) 094012.
18. B. Melić, K. Passek-Kumerički and J. Trampetić: K \rightarrow pi γ decays and space-time noncommutativity, Phys. Rev. D 72 (2005) 057502.
19. B. Melić, K. Passek-Kumerički and J. Trampetić: Quarkonia decays into two photons induced by the space-time non-commutativity, Phys. Rev.D 72 (2005) 054004,
20. B. Melić, K. Passek-Kumerički, J. Trampetić, P. Schupp and M.Wohlgenannt: The Standard model on non-commutative space-time: strong interactions included, Eur. Phys. J. C 42 (2005) 499-504.
21. B. Melić, K. Passek-Kumerički, J. Trampetić, P. Schupp and M.Wohlgenannt, The Standard model on non-commutative space-time: electroweak currents and Higgs sector, Eur. Phys. J. C 42 (2005) 483-497.
22. B. Melić: LCSR analysis of exclusive two body B decay into charmonium, Phys. Lett. B 591 (2004) 91.
23. A. Babić, B. Guberina, B. Melić and H. Štefančić: Cabibbo-suppressed decays of the Ω_{cc} - feedback to the Ξ_{cc} lifetime, Phys. Rev. D 70 (2004) 117501.
24. B. Melić, B. Nižić and K. Passek: A note on the factorization scale independence of the PQCD prediction for exclusive processes, Eur. Phys. J. C 36 (2004) 453-458.
25. A. Khodjamirian, Th. Mannel and B. Melić: QCD Light-Cone Sum Rule Estimate of Charming Penguin Contributions in B \rightarrow pi pi, Phys. Lett. B. 571 (2003) 75-84, Phys.Lett.B 572 (2003) 171-180 (published twice in journal).
26. B. Melić: Nonfactorizable contributions to B \rightarrow J/psi K, Phys. Rev. D 68 (2003) 034004.
27. B. Melić, D. Mueller and K. Passek-Kumerički: Next-to-next-to-leading prediction for the photon-to-pion transition form factor , Phys. Rev. D 68 (2003) 014013.
28. B. Melić, B. Nižić and K. Passek: Brodsky-Lepage-Mackenzie scale setting for the pion transition form factor , Phys. Rev. D 65 (2002) 053020.
29. J. G. Koerner, B. Melić and Z. Merebashvili: Analyticity, crossing and the absorptive parts of the one-loop contributions to the quark-quark-gluon gauge boson four-point function, Phys. Rev. D 62 (2000) 96011.
30. J. G. Koerner and B. Melić: Exclusive-inclusive ratio of semileptonic Λ_b -decays, Phys. Rev. D 62 (2000) 74008.
31. B. Guberina, B. Melić and H. Štefančić: Lifetime-difference of heavy hadrons, Phys. Lett. B 484 (2000) 43-50.
32. B. Guberina, B. Melić and H. Štefančić: Inclusive Decays and Lifetimes of Doubly Charmed Baryons,

Eur. Phys. J. C 9 (1999) 213-219; Erratum, ibidem, 13 (2000) 551-551.

33. B. Guberina, B. Melić and H. Štefančić: Enhancement of preasymptotic effects in inclusive beauty decays, Phys. Lett. B 469 (1999) 253-258.
34. H.-n. Li and B. Melić: Determination of heavy meson wave functions from B decays, Eur. Phys. J. C 11 (1999) 695-702.
35. B. Melić: Perturbative approach to the penguin-induced $B \rightarrow \pi \Phi$ decay, Phys. Rev. D 59 (1999) 074005.
36. D. Klabučar, K. Kumerički, B. Melić and I. Picek: On the instanton-induced portion of the nucleon strangeness, Eur. Phys. J. C 9 (1999) 589-599.
37. B. Melić, B. Nižić and K. Passek: Complete next-to-leading order perturbative QCD prediction for the pion form factor, Phys. Rev. D 60 (1999) 074004.
38. B. Guberina and B. Melić: Inclusive charmed baryon decays and lifetimes, Eur. Phys. J. C 2 (1998) 697-703.
39. B. Melić and S. Meljanac: Permutation invariant statistics, duality and simple interpolations, Phys. Lett. A 226 (1997) 22-30.
40. B. Melić: Hydrogenic atoms with spinless nucleus in a magnetic field, J. Phys. B 27 (1994) 3849-3862.
41. B. Melić: Zeeman splitting in neutral hydrogenic atoms with spinless nucleus, J. Phys. B 27 (1994) 993-1003.

A2: Članci u ostalim časopisima

42. B. Melić, B. Nižić and K. Passek: On the complete next-to-leading order PQCD prediction for the pion form factor, Fizika B 8 (1999) 327-334 (12 citations).
43. D. Klabučar, K. Kumerički, B. Melić, and I. Picek: Nucleon strangeness as the response to a strangeness-sensitive probe in a class of hadrons models, Fizika B 8 (1999) 505-534 (2 citations).
44. A.T. Goritschnig, B. Melić, K. Passek-Kumerički and W. Schweiger: Hard Exclusive Photoproduction of Phi and J/Psi Mesons, Prog. Part. Nucl.Phys. 61 (2008) 173-174.

B1: Članci u CC recenziranim zbornicima radova

1. J. G. Koerner and B. Melić: Exclusive and inclusive semileptonic Λ_b -decays, Nucl. Phys. Proc. Suppl. 93 (2000) 13-17.
2. D. Klabučar, K. Kumerički, B. Melić, and I. Picek: Proton strangeness induced by instantons, Proc. of International workshop Symmetry and spin, Czech. J. Phys. 50 (1999) S1 187-193.
3. B. Melić, B. Nižić and K. Passek: BLM scale for the pion transition form factor, Lect. Notes Phys. 616 (2003) 114-122.
4. B. Melić: Exclusive nonleptonic B decays from QCD light-cone sum rules, Lect. Notes Phys. 647 (2004) 287-301.

5. B. Melić: Estimate of the charming penguin contributions to $B \rightarrow \pi \pi$, Eur. Phys. J. C 33 (2004) S250-S252.
6. G. Duplančić, A. Khodjamirian, Th. Mannel, B. Melić and N. Offen: $|V_{ub}|$ determination using $B \rightarrow \pi$ form factor from light-cone sum rule, J.Phys. Conf. Ser. 110 (2008) 052026.
7. B. Melić: Charmless two-body B-meson decays in QCD, Nucl. Phys. Proc. Suppl. 209 (2010) 129-134.
8. S. Bhattacharya, B. Melić and J. Wudka: Dark Matter Pions, Acta Phys.Polon. B44 (2013) 11, 2359-2366.
9. B. Melić: DisCERNing new physics in $t\bar{t}$ -production from top-spin observables. J.Phys.Conf.Ser. 485 (2014) 012052.
10. A. T. Goritschnig, B. Melic, K. Passek-Kumericki, W. Schweiger: Hard Exclusive Φ and J/Ψ Photoproduction of a Proton, PoS DIS2014 (2014) 170.
11. S. Bhattacharya, B. Melić and J. Wudka: Pion-like dark matter, Nucl.Part.Phys.Proc. 273-275 (2016) 2329-2331.
12. D. Bečirević, G. Duplančić, B. Klajn, B. Melić, F. Sanfilippo: Charmonia decay constants from lattice QCD and QCD sum rules, Nucl.Part.Phys.Proc. 273 (2016) 1611-1617.
13. B. Melić, M. Patra: Using Spin Observables and Polarizations to Probe Top-Higgs FCNC Couplings at Colliders, J. Phys.Conf.Ser. 878 (2017) No.1, 012026.
14. O. Antipin and B. Melic: Decoupling effects in the running of the Cosmological Constant, PoS(EPS-HEP2017)043.
15. B. Melić, M. Patra: Probing Chirality of Top-Higgs FCNC Couplings at Linear Colliders, PoS(EPS-HEP2017)316.
16. D. Bečirević, B. Melić, M.Patra, O. Sumensari: Seeking a light CP-odd Higgs state, PoS EPS-HEP2017 (2018) 678.
17. O. Antipin and B. Melic: Revisiting decoupling effects in the running of the Cosmological Constant, Int.J.Mod.Phys. A33 (2018) no.34, 1845013.

B2: Članci u ostalim zbornicima radova

18. B. Melić: On the perturbative approach to the penguin induced $B \rightarrow \pi \Phi$ decay, Proc. of The International Europhysics Conference, HEP99, Tampere, Finland, July 15-21, 1999, pp. 540-541.
19. D. Klabučar, K. Kumerički, B. Melić and I. Picek: On the instanton induced nucleon strangeness, Proc. of the XIth Rencontres de Blois, Blois, France, June 27 – July 3, 1999, pp. 279-281.
20. B. Melić, B. Nižić and K. Passek: On the PQCD prediction for the pion form factor, Proc. of the 6th INT / Jlab Workshop on Exclusive and Semiexclusive Processes at High Momentum Transfer, Newport News, Virginia, USA, May 20-22, 1999: Newport News 1999, Exclusive and semiexclusive processes at high momentum transfer, World Scientific, 2000, pp.279-286.
21. B. Guberina, B. Melić and H. Štefančić: Inclusive decays and lifetimes of doubly-charmed baryons, Proc. of XVII Autumn School, QCD: Perturbative or Nonperturbative?, Lisbon, Portugal, September 29 - October 4, 1999, pp. 363-368.

22. B. Guberina, B. Melić and H. Štefančić: Preasymptotic effects in Λb -decays, Proc. of The 3rd International Conference on B Physics and CP Violation, Taipei, Taiwan, December 3-7, 1999, pp. 156-159.
23. B. Guberina, B. Melić and H. Štefančić, Lifetime pattern of heavy hadrons, Proc. of The 30rd International Conference on High Energy Physics, ICHEP 2000, Osaka, Japan, July 27 - August 2, 2000, pp. 888-890.
24. B. Melić: Heavy Flavour Hadrons - inclusive decays and lifetimes, Proc. of the Int. Conf. "LHC days in Split", Split, Croatia, October 4-7, 2000, pp. 644-658.
25. B. Melić, B. Nižić and K. Passek: Scale dependence and NLO predictions for the pion form factor , Proc. of the Workshop on the Pion Form Factor, NIKHEF, Amsterdam, Holland, January 18, 2000, pp. 88-100.
26. B. Melić: The lifetimes of heavy hadrons - A theoretical appraisal , Proc. of the 4th International Conference on B Physics and CP Violation, BCP4, Ise-Shima, Japan, February 19-23, 2001, pp. 299-302.
27. B. Melić and R. Rueckl: Nonfactorizable effects in $B \rightarrow J/\psi K$, Proc. of the Workshop on B physics and CP violation, Frontier Science 2002, October 6-11, 2002, INFN, Frascati, Italy, in "Frascati 2002, Frontier science 2002", pp. 235-238.
28. A. Khodjamirian, Th. Mannel and B. Melić: Charming penguins in $B \rightarrow \pi \pi$ from QCD light-cone sum rules, Proc. of the Workshop on the CKM Unitarity Triangle, IPPP Durham, England, April 5-9, 2003, eConf C0304052:WG409, 2003.
29. B. Melić: Some aspects of (charmless) B decays from QCD light-cone sum rules, Proc. of the Int. Conference on Flavor Physics and CP Violation, FPCP 2003, Ecole Polytechnique, Paris, France, June 3-6, 2003, eConf C030603:JEU03, 2003, pp. 245-249.
30. A.Khodjamirian, Th. Mannel and B. Melić: Charmless B decays and QCD light-cone sum rules - a recent development , Proc. of the 4th International Workshop on the CKM Unitarity Triangle, Nagoya, Japan, December 12-16, 2006.
31. B. Melić: Introduction to Φ_2 from charmless B decays, Proc. of the 4th International Workshop on the CKM Unitarity Triangle, Nagoya, Japan, December 12-16, 2006.
32. A.Khodjamirian, Th. Mannel, M. Melcher and B. Melić: $B \rightarrow \pi \pi$ hadronic amplitudes from QCD light-cone sum rules, Proc. of EPS International Europhysics Conference on High Energy Physics (HEP-EPS 2005), Lisbon, Portugal, 21-27 Jul 2005, PoS HEP2005:194-197, 2006.
33. B. Melić: $B \rightarrow \pi$ and $B(s) \rightarrow K$ form factors and V_{ub} determination, Proc. of the 34th International Conference on the High Energy Physics (ICHEP08), Philadelphia, USA, July 29th- August 5th, 2008, SLAC's eConf Proceedings.
34. S. Groote, J.G. Koerner, B. Melić and S. Prelovšek: Single top quark polarization at $O(\alpha_S)$ in t -bar production at a polarized linear e^+e^- collider, Proc. of 2nd LHC Forum Meeting, Munich, Germany, 14-15 July 2011 and Helmholtz Alliance Linear Collider Forum : Proceedings of the Workshops Hamburg, Munich, Hamburg 2010-2012, Germany.

KONFERENCIJSKA IZLAGANJA I SEMINARI

A: Pozvana plenarna predavanja na međunarodnim konferencijama

2002 "Exclusive nonleptonic B decays from QCD light-cone sum rules", invited plenary talk given at the International School on Heavy Quark Physics, Dubna, Russia, May 27 - Jun 5, 2002.

2003 "Some aspects of (charmless) B decays from QCD light-cone sum rules", invited plenary talk given at International Conference on Flavor Physics and CP Violation, FPCP 2003, Ecole Polytechnique, Paris, France, June 3-6, 2003.

2003 "LCSR analysis of exclusive two-body B decays", invited plenary talk given at 3rd International Workshop on B physics and CP violation (BCP3), Taipei, Taiwan, September 29 - October 1, 2003.

2010 "Charmless two-body B-decays in QCD", invited talk given at the 3rd Workshop on Theory, Phenomenology and Experiments in Heavy Flavour Physics (Capri2010), Anacapri, Island of Capri, Italy, July 3- 5, 2010.

2011 "CP violation with the fourth generation of quarks", invited talk given at the Int. Workshop The Role of Heavy Fermions in Fundamental Physics (Portoroz 2011), Portoroz, Slovenia, April 11- 14, 2011.

2017 "BSM Higgs decays with quarkonium", invited talk given at the 12th Int. Workshop on Heavy Quarkonium (QWG 2017), Beijing, China, November 6-10, 2017.

2019 "Bc semileptonic decays as a probe of lepton flavour universality", invited talk given at COST workshop on Higgs and flavour physics: Present and Future, Lisbon, Portugal 14-17 January, 2019

2019 "Semileptonic Bc decays", invited plenary talk given at "Implications of LHCb measurements and future prospects", CERN, Geneva, Switzerland, 16-18.10.2019.

B: Pozvana predavanja na međunarodnim konferencijama

1999 "Perturbative approach to the penguin induced $B \rightarrow \pi \Phi$ decay", invited talk (parallel session) given at the International Europhysics Conference, HEP99, Tampere, Finland, July 15-21, 1999 .

2000 "NLO prediction and scale dependence of the pion form factor", invited talk given at the Workshop on the Pion Form Factor, NIKHEF, Amsterdam, Netherland, January 18, 2000 .

2000 "Lifetime pattern of heavy hadrons", invited talk (parallel session) given at the 30th International Conference on the High Energy Physics, ICHEP 2000, Osaka, Japan, July 27 - August 2, 2000.

2000 "Heavy flavour hadrons - inclusive decays and lifetimes", invited talk given at the International Conference "LHC days in Split", Split, Croatia, October 4-7, 2000.

2002 "Nonfactorizable effects in $B \rightarrow J/\psi K$ ", invited talk (parallel session) given at 1st International Workshop on Frontier Science : Charm, Beauty, and CP ,INFN, Frascati, Italy, October 6-11, 2002.

2003 "Charming penguins in $B \rightarrow \pi \pi$ from QCD light-cone sum rules", invited (parallel session) talk given at the Workshop on the CKM Unitarity Triangle, IPPP Durham, England, April 5-9, 2003.

2003 "Estimate of charming penguins in $B \rightarrow \pi \pi$ ", invited talk (parallel session) given at the International Europhysics Conference on High Energy Physics EPS , Aachen, Germany, July 17- 23, 2003.

2004 "Charmless B decays and (non)factorization", invited talk given at the International conference 2004

LHC Days in Split, Split, Croatia, October 5-9, 2004.

2006 "QCD light-cone sum rules for charmless B decays - most recent developments", invited talk given at the 4th International Workshop on the CKM Unitarity Triangle, Nagoya, Japan, December 12-16, 2006.

2006 "Introduction to Φ_2 from charmless B decays", invited talk given at the 4th International Workshop on the CKM Unitarity Triangle, Nagoya, Japan, December 12-16, 2006.

2008 "B \rightarrow pi and B(s) \rightarrow K form factors and V_{ub} determination", invited talk given at the 34th International Conference on the High Energy Physics (ICHEP08), Philadelphia, USA, July 29- August 5, 2008.

2010 "B-physics in the LHC era - an overview", invited talk given at the International conference LHC Days in Split - 2010, Split, Croatia, October 4-9, 2010.

2011 "The puzzling B \rightarrow PP decays", invited talk given at the Workshop "Colour meets flavour", (Quantum Chromodynamics and Flavour Physics), University of Siegen, Germany, October 13-14, 2011.

2012 "Discerning new physics in tt-production from the top spin observables", invited talk given at the 18th International Symposium on Particles, Strings and Cosmology, PASCOS2012, Merida, Mexico, June 3-8, 2012.

2013 "Pionic Dark Matter", invited talk given at the International. Workshop Selected Challenges in Particle Phenomenology, Brda, September 19-20, 2013.

2014 "Charmonia decay constants from QCD Sum Rules and Lattice QCD", invited talk given at the Int. Workshop „From Strange, through Charm and Beauty to the Top“, Ljubljana, April 16th, 2014.

2014 "Pion-like dark matter", invited talk given at 2nd Int. Symposium on Particles, Strings and Cosmology PASCOS2014, Warsaw, 22-27 June 2014.

2014 "Charmonia decay constants from lattice QCD and QCD sum rules", invited talk given at the ICHEP2014, 37th International Conference on High Energy Physics (ICHEP), Valencia, 2nd- 9th July 2014.

2014 "Pion-like Dark Matter", poster presentation at 37th International Conference on High Energy Physics ICHEP2014, Valencia, Spain, July 2-9, 2014.

2016 "Exploring the Top-Higgs FCNC Couplings at Colliders", talk at the International Workshop "Hadronic Contributions to New Physics Searches", 25-30 September 2016, Puerto de la Cruz, Tenerife, Spain.

2016 "Exploring the top-Higgs FCNC couplings at colliders", talk at the International Workshop Selected topics in flavor and collider physics, Brda2016, October 19 - 21, 2016, Brda, Slovenia.

2016 "Using spin correlations to probe top-Higgs FCNC couplings at colliders", talk at the International Workshop Discovery at the LHC, Kruger2016, December 3 - 9, 2016, Kruger Gate, South Africa.

2017 "Higgs mass prediction from the cosmological constant running", Pascos 2017, 19 - 23 June 2017, Madrid, Spain.

2017 "Probing Chirality of Top-Higgs FCNC Couplings at Linear Colliders", EPS Conference on High Energy Physics, 05 - 12 July 2017, Venice, Italy.

2017 "Decoupling effects in the running of the Cosmological Constant", EPS Conference on High Energy Physics, 05 - 12 July 2017, Venice, Italy.

2017 "BSM Higgs decays with quarkonium", 12th International Workshop on Heavy Quarkonium (QWG 2017), 6-10 November 2017 at Peking University in Beijing, Peking, China.

2018 "Testing a spin-2 mediator in b \rightarrow s mu mu decay", Conference: Windows on the Universe, ICISE,

August 5-11, 2018, Quy Nhon, Vietnam.

C: Ostala predavanja na međunarodnim konferencijama

1997 "Inclusive charmed baryon decays and lifetimes", talk given at the XVI Autumn School and Workshop on Fermion Masses, Mixing and CP violation, Lisbon, Portugal, October 6-15, 1997.

1998 "Perturbative approach to the penguin-induced $B \rightarrow \pi \Phi$ ", talk given at the Triangle Seminar on Particle Physics, Vienna, Austria, November 27-28, 1998.

1999 "Perturbative approach to the penguin induced $B \rightarrow \pi \Phi$ decay", poster, EPS-11: Trends in Physics, London, UK, September 6-10, 1999 .

1999 "Preasymptotic effects in b-decays", talk given at The 3rd International Conference on B Physics and CP Violation, Taipei, Taiwan, December 3-7, 1999.

2001 "The lifetimes of heavy hadrons - A theoretical appraisal", poster, The 4th International Conference on B Physics and CP Violation, Ise-Shima, Japan, February 19-23, 2001.

2006 "Exclusive B decays in QCD", talk given at Symposium QCD: Facts and Prospects, Oberwoelz, Styria, Austria, September 10-16, 2006.

D: Seminari na inozemnim institucijama

1992 "Implications of large strangeness components in the nucleon", talk given at Institut fuer Theoretische Teilchenphysik, Universitaet Karlsruhe, Germany, October 14, 1992.

1993 "Relativistic Zeeman splitting in two-body atoms", talk given at Institute of Physics, University of Oslo, Norway, September 22, 1993.

1999 "Neutrino story", invited talk given at Institut Superieur de Technologie Luxembourg, Luxembourg, March 22, 1999.

2001 "BLM scale setting for the pion transition form factor", talk given at Universitaet Wuppertal, Germany, June 5, 2001.

2002 "Exclusive nonleptonic B decays from QCD light-cone sum rules", talk given at Institut fuer Theoretische Physik und Astrophysik, Universitaet Wuerzburg, Germany, October 24, 2002.

2003 "Theoretical aspects of heavy hadron lifetimes", talk given at National Taiwan University, Taipei, Taiwan, October 6, 2003.

2004 "Lifetimes of charmed and beauty hadrons", talk given at Universitaet Siegen, Germany, June 23, 2004.

2005 "Light-Cone Sum Rules in Charmless B-Decays", talk given at Ludwig-Maximilians-Universitaet Muenchen, Germany, January 12, 2005.

2005 "Light-Cone Sum Rules for nonleptonic B decays", talk given at Jozef Stefan Institute, Ljubljana, Slovenia, December 19, 2005.

2006 "Exclusive B meson decays from QCD sum rules", talk given at Universit'e Catholique de Louvain, Louvain-la-Neuve, Belgium, June 23, 2006.

2008 "Exclusive charmless B-meson decays in QCD", talk given at Technion, Haifa, Israel, December 1, 2008.

2009 "Exclusive charmless B-meson decays in QCD", talk given at Wayne State University, Detroit, USA, November 4, 2009.

2010 "CP violation and the 4th generation" talk given at LPT, CNRS at University of Paris-Sud 11, Orsay, France, January 19, 2010.

2010 "CP violation and the 4th generation" talk given at Jozef Stefan Institute, Ljubljana, Slovenia, March 18, 2010.

2015 "B(s) \rightarrow η , η' and D(s) \rightarrow η , η' transitions from QCD light-cone sum rules" talk given at IFIC, University of Valencia, Spain, December 17, 2015.

2019 "Testing the Standard model in semileptonic Bc decays" talk given at LMU, Munich, Germany, 23 January, 2019.

E: Ostala predavanja

2005 "Razvoj subatomske fizike", invited talk (in Croatian) at the workshop "World year of physics 2005", Croatian Academy of Science and Arts, December 9th, 2005.

2019 "CERN Membership as an Opportunity for Croatian Physics", pozvano predavanje na skupu Science and Educational Challenges Facing Europe in the Next Decade, on the occasion of the 250th anniversary of the birth of Alexander von Humboldt (1769–1859), Humboldt College Zagreb, October 10–11, 2019.



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