

Список публикаций
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1. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Measurement of the πK atom lifetime and the πK scattering length.
Phys. Rev. D96 (2017) 052002.
2. *V. Yazkov and M. Zhabitsky.*
An improved πK atom lifetime measurement.
DIRAC note 2016-06 (2016) 9 p.; <http://cds.cern.ch/record/2252375>
3. *M. Zhabitsky.*
Comparison of the Asynchronous Differential Evolution and JADE Minimization Algorithms.
EPJ Web of Conferences 108 (2016) 02048 pp. 1–6.
4. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Upgraded DIRAC spectrometer at CERN PS for the investigation of $\pi\pi$ and πK atoms.
Nucl. Instrum. Meth. A 839 (2016) 52–85.
5. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Observation of $\pi^- K^+$ and $\pi^+ K^-$ Atoms.
Phys. Rev. Lett. 117 (2016) 112001.
6. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
First observation of long-lived $\pi^+ \pi^-$ atoms.
Phys. Lett. B751 (2015) 12–18.
7. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
First πK atom lifetime and πK scattering length measurements.
Phys. Lett. B735 (2014) pp. 288–294.
8. *M. Zhabitsky for the DIRAC Collaboration.*
First πK atom lifetime and recent results from the DIRAC experiment.
EPJ Web of Conferences 81 (2014) 01019 pp. 1–6.
9. *V.K. Lukyanov, . . . , M. Zhabitsky.*
Modeling of a Microscopic Optical Pion–Nucleon Potential at Energies in the (3,3)-Resonance Region and Nuclear-Matter Effect on the Pion–Nucleon Amplitude.
Physics of Atomic Nuclei 77 (2014) pp. 100–109.
10. *K.V. Lukyanov, . . . , M. Zhabitsky.*
A Study of Pion-Nucleus Elastic and Inelastic Scattering Using Microscopic Optical Potential.
Scientific Report 2012-2013, LIT JINR (2014) pp. 110–113.
11. *Е.И. Жабицкая, М.В. Жабицкий.*
Развитие алгоритма асинхронной дифференциальной эволюции.
Scientific Report 2012-2013, LIT JINR (2014) pp. 144–147.
12. *M. Zhabitsky.*
How uncertainties in the atomic potential affect DIRAC results.
DIRAC note 2014-06 (2014) 7 p.; <http://cds.cern.ch/record/1987122>

13. *E. Zhabitskaya, M. Zhabitsky.*
Asynchronous Differential Evolution with Adaptive Correlation Matrix.
Proceedings of the Genetic and Evolutionary Computation Conference, GECCO'13, ACM — Association for Computing Machinery (2013) pp. 455–462; ISBN: 978-1-4503-1963-8.
14. *S. Dymov, . . . , M. Zhabitsky (ANKE collaboration).*
Measurement of spin observables in the quasifree $n p \rightarrow \{pp\}_s \pi^-$ reaction at 353 MeV.
Phys. Rev. C88 (2013) 014001 pp. 1–12.
15. *E. Zhabitskaya, M. Zhabitsky.*
Asynchronous Differential Evolution with Restart.
Lect. Notes in Comp. Sci. 8236 (2013) pp. 555–561.
16. *V. Yazkov, M. Zhabitsky.*
Investigation of systematic errors and estimation of πK atom lifetime.
DIRAC note 2013-06 (2013) 18 p. <http://cds.cern.ch/record/1628544>
17. *Е.И. Жаблицкая, М.В. Жаблицкий, Е.В. Земляная, К.В. Лукьянов.*
Расчет параметров микроскопического оптического потенциала упругого рассеяния π -мезонов на ядрах с применением алгоритма асинхронной дифференциальной эволюции.
Компьютерные исследование и моделирование 4 (2012) С. 585–595.
18. *Е.И. Жаблицкая, М.В. Жаблицкий.*
Решение оптимизационных задач на распределенных вычислительных системах с помощью алгоритма асинхронной дифференциальной эволюции.
Математическое моделирование 24 (2012) С. 33–37.
19. *E. Zhabitskaya, M. Zhabitsky.*
Asynchronous Differential Evolution.
Lect. Notes in Comp. Sci. 7125 (2012) pp. 328–333.
20. *G. Macharashvili and M. Zhabitsky.*
Progress in STT energy calibration.
IKP annual report 2012, FZ Jülich, ISSN:0944–2952.
21. *Е. Жаблицкая, М. Жаблицкий.*
Алгоритм Асинхронной Дифференциальной эволюции для решения оптимизационных задач.
Труды XVI научной конференции молодых ученых и специалистов ОИЯИ. Дубна: ОИЯИ, 2012. С. 50-53.
22. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Determination of $\pi\pi$ scattering lengths from measurement of $\pi^+\pi^-$ atom lifetime.
Phys. Lett. B704 (2011) pp. 24–29.
23. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Evidence for πK -atoms with DIRAC.
Phys. Lett. B674 (2009) pp. 11–16.
24. *M. Zhabitsky.*
Lifetime measurement of $\pi^+\pi^-$ -atoms on the DIRAC spectrometer,
PhD Thesis: Dubna, JINR, 2008, 126 p.
CERN-THESIS-2008-165; <http://cds.cern.ch/record/1442305>

25. *S. Horikawa, Y. Allkofer, C. Amsler, V. Brekhovskikh, A. Kuptsov, M. Pentia and M. Zhabitsky.*
The C_4F_{10} Cherenkov detector for DIRAC-II.
Nucl. Instrum. Meth. A 595 (2008) pp. 212–215.
26. *M. Zhabitsky* for the DIRAC Collaboration.
Measurement of the ponium lifetime.
Proc. of the 34th Intern. Conf. on High Energy Physics (ICHEP08), Philadelphia, USA, 4 pp.;
arXiv:0809.4963 [hep-ex].
27. *D. Drijard, M. Zhabitsky.*
How to extract the lifetime of ponium and $|a_0^0 - a_0^2|$ from the measurements of the ponium
ionization probability.
DIRAC note 2008-07 (2008); <http://cdsweb.cern.ch/record/1367888>
28. *M. Zhabitsky.*
Direct calculation of the probability of ponium ionization in the target.
Phys. At. Nucl. **71**, No. 6, 1040–1047 (2008).
JINR-E4-2007-103; arXiv:0710.4416 [hep-ph].
29. *M. Zhabitsky.*
DIPGEN (DIRAC Pairs Generator).
DIRAC note 2007-11 (2007); <http://cdsweb.cern.ch/record/1369651>
30. *M. Zhabitsky.*
Direct calculation of the probability of ponium ionization in the target.
DIRAC note 2007-10 (2007); <http://cdsweb.cern.ch/record/1064783>
31. *М. Жабуцкый.*
Оценка формы спектров отрицательных пионов и $\pi^+\pi^-$ -пар с малым относительным им-
пульсом в p Ni-столкновениях при 24 ГэВ/с.
Труды XI научной конференции молодых ученых и специалистов ОИЯИ. Дубна: ОИЯИ,
2007. С. 28-30. ISBN 5-9751-0038-0.
32. *M. Zhabitsky.*
Parametrization of $\pi^+\pi^-$ pairs spectra at the DIRAC kinematic range.
DIRAC note 2007-01 (2007); <http://cdsweb.cern.ch/record/1369660>
33. *M. Zhabitsky.*
Parametrization of single particle spectra at the DIRAC kinematic range.
DIRAC note 2006-06 (2006); <http://cdsweb.cern.ch/record/1369661>
34. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
First measurement of the $\pi^+\pi^-$ atom lifetime.
Phys. Lett. B619 (2005) pp. 50–60 (hep-ex/0504044).
35. *M. Zhabitsky (on behalf of the DIRAC collaboration).*
DIRAC latest results.
Proc. of EXA05 Intern. Conf. on Exotic atoms and Related Topics, Vienna, 2005, pp. 155–164;
ISSN 1021-2043; ISBN 3-7001-3616-1.
36. *M. Zhabitsky (on behalf of the DIRAC collaboration).*
The DIRAC experiment at CERN.
Proc. of HadAtom05 International Workshop on Hadronic atoms, Bern, 2005; hep-ph/0508193.

37. *G. Bitsadze, V. Brekhovskikh, A. Kuptsov, V. Lapshin, V. Rykalin, L. Tauscher and M. Zhabitsky.*
The ionisation hodoscope of the DIRAC experiment.
Nucl. Instrum. Meth. A533 (2004) pp. 353–360.
38. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Detection of $\pi^+\pi^-$ atoms with the DIRAC spectrometer at CERN.
J. Phys. G: Nucl. Part. Phys. 30 (2004) pp. 1929–1946 (hep-ex/0409053).
39. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Lifetime measurement of $\pi^+\pi^-$ and $\pi^\pm K^\mp$ atoms to test low energy QCD. Addendum to the DIRAC proposal.
CERN-SPSC-2004-009, CERN-SPSC-P-284-ADD-4 (2004) 168pp.
40. *A. Kulikov and M. Zhabitsky.*
Dead time losses and their measurement in DIRAC.
Nucl. Instrum. Meth. A527 (2004) pp. 591–597; JINR-E13-2003-243.
41. *A. Kulikov and M. Zhabitsky.*
4e-trigger for DIRAC.
DIRAC note 2003-05 (2003); <http://cds.cern.ch/record/1369700>
42. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
DIRAC: a high resolution spectrometer for ponium detection.
Nucl. Instrum. Meth. A515 (2003) pp. 467–496, (hep-ex/0305022).
43. *V. Brekhovskikh, A. Kuptsov, V. Lapshin, V. Rykalin, L. Tauscher and M. Zhabitsky.*
New ionization hodoscope: design and characteristics.
DIRAC note 02-09 (2002).
44. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
Detection of atoms consisting of π^+ and π^- mesons at PS CERN.
AIP Conf. Proc. 619 (2002) pp. 745–748.
45. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
The DIRAC experiment at CERN: current status and future perspectives.
PiN Newslett. 16 (2002) pp. 352–354.
46. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
DIRAC experiment.
Nucl. Phys. Proc. Suppl. 96 (2001) pp. 259–266.
47. *B. Adeva, . . . , M. Zhabitsky et al. (DIRAC collaboration).*
First observation of πK atom and its lifetime measurement.
CERN-SPSC-2000-032, CERN-SPSC-P-284-ADD-1 (2000) 74pp.
48. *М. Жаблицкий.*
Взаимодействие $\pi^+\pi^-$ атомов с веществом.
Труды Третьей научной конференции молодых ученых и специалистов, ОИЯИ Д-99-94, Дубна (1999) С. 139–141.
49. *М. Жаблицкий.*
Вычисление заселенностей уровней $\pi^+\pi^-$ атома при движении в веществе.
Труды Второй открытой научной конференции молодых ученых и специалистов, ОИЯИ Д-98-224, Дубна (1998) С. 18–20.

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