List of publications

Dr. Volodymyr Krasnoholovets

August 2008

Papers related to the mathematical development of the concept of space

V. Krasnoholovets, On the way to submicroscopic description of nature, Indian Journal of Theoretical Physics, vol. 49, no. 2, 81-95 (2001) (pdf file 152 kb; also arXiv.org e-print archive http://arXiv.org/abs/quant-ph/9908042).

V. Krasnoholovets, Space structure and quantum mechanics, Spacetime & Substance, vol. 1, no. 4, 172-175 (2000) (pdf file 144 kb ; also http://arXiv.org/abs/quant-ph/0106106) [Invited talk given at the Ukrainian Russian conference "Gravitation, Cosmology and Relativistic Astrophysics", Kharkiv, Ukraine, 8-12 November 2000].

M. Bounias and V. Krasnoholovets, How space generates matter and physical laws. In: Science addendum to: I. Harezi, The resonance in residence. An inner and outer quantum journey (Ilonka Harezy, USA, 2002), Ch. 4, pp. 33-53.

M. Bounias and V. Krasnoholovets, Scanning the structure of ill-known spaces: Part 1. Founding principles about mathematical constitution of space, Kybernetes: The International Journal of Systems and Cybernetics, vol. 32, no. 7/8, 945-975 (2003) [in a special issue on some new theories about time and space] (pdf file 288 kb ; also http://arXiv.org/abs/physics/0211096).

M. Bounias and V. Krasnoholovets, Scanning the structure of ill-known spaces: Part 2. Principles of construction of physical space, Kybernetes: The International Journal of Systems and Cybernetics, vol. 32, no. 7/8, 976-1004 (2003) [in a special issue on some new theories about time and space] (pdf file 268 kb ; also http://arXiv.org/abs/physics/0212004).

M. Bounias and V. Krasnoholovets, Scanning the structure of ill-known spaces: Part 3. Distribution of topological structures at elementary and cosmic scales, Kybernetes: The International Journal of Systems and Cybernetics, vol. 32, no. 7/8, 1005-1020 (2003) [in a special issue on some new theories about time and space] (pdf file 196 kb; also http://arXiv.org/abs/physics/0301049).

M. Bounias and V. Krasnoholovets, The universe from nothing: A mathematical lattice of empty sets. International Journal of Anticipatory Computing Systems, vol. 16, pp. 3-24 (2004), Ed.: D. Dubois (pdf file 216 kb ; also http://arXiv.org/abs/physics/0309102). [Talk delivered at CASYS'2003 (The Conference on Anticipatory Computing Systems, Institute of Mathematics, Liege, Belgium, 11-16 August 2003].

V. Krasnoholovets, The tessellattice of mother-space as a source and generator of matter and physical laws, in Einstein and Poincare: The Physical Vacuum, Ed.: V. Dvoeglazov (Apeiron, Montreal, 2006), pp. 143-153 (pdf file 143 kb).

V. Krasnoholovets, Gravitation as deduced from submicroscopic quantum mechanics, arXiv.org e-print archive, hep-th/0205196 (pdf file 236 kb ; also http://arXiv.org/abs/hep-th/0205196)

V. Krasnoholovets, Newton's static potential 1/r as the space relief formed by dynamic inertons, carriers of the gravitational interaction, Spacetime & Substance 4, no. 4, 145-151 (2003) (pdf file 144 kb)

V. Krasnoholovets, Reasons for the gravitational mass and the problem of quantum gravity, in Ether, Spacetime and Cosmology, Vol. 1, Eds.: M. Duffy, J. Levy and V. Krasnoholovets (PD Publications, Liverpool, 2008), pp. 419-450 (ISBN 1 873 694 10 5) (pdf file 188 kb).

Papers dealing with the development of sub-microscopic mechanics, particles and the relationship with quantum mechanics

V. Krasnoholovets and D. Ivanovsky, Motion of a particle and the vacuum, Physics Essays, vol. 6, no. 4, 554-563 (1993) (pdf file 160 kb ; also http://arXiv.org/abs/quant-ph/9910023).

V. Krasnoholovets, Motion of a relativistic particle and the vacuum, Physics Essays, vol. 10, no. 3, 407-416 (1997) (pdf file 168 kb ; also http://arXiv.org/abs/quant-ph/9903077).

V. Krasnoholovets, On the nature of spin, inertia and gravity of a moving canonical particle, Indian Journal of Theoretical Physics, vol. 48, no. 2, 97-132 (2000) (pdf file 228 kb ; also http://arXiv.org/abs/quant-ph/0103110).

V. Krasnoholovets, On the way to submicroscopic description of nature, Indian Journal of Theoretical Physics, vol. 49, no. 2, 81-95 (2001) (pdf file 152 kb; also arXiv.org e-print archive http://arXiv.org/abs/quant-ph/9908042).

V. Krasnoholovets, Space structure and quantum mechanics, Spacetime & Substance, vol. 1, no. 4, 172-175 (2000) (pdf file 144 kb ; also http://arXiv.org/abs/quant-ph/0106106) [Invited talk given at the Ukrainian Russian conference "Gravitation, Cosmology and Relativistic Astrophysics", Kharkiv, Ukraine, 8-12 November 2000].

V. Krasnoholovets, On the mass of elementary carriers of gravitational interaction, Spacetime & Substance, vol. 2, no. 4, 169-170 (2001) (pdf file 96 kb ; also http://arXiv.org/abs/quant-ph/0201131).

V. Krasnoholovets, Submicroscopic deterministic quantum mechanics, International Journal of Computing Anticipatory Systems, vol. 11, 164-179 (2002), Ed.: D. Dubois (pdf file 188 kb; also http://arXiv.org/abs/quantph/0109012) [Invited talk delivered at the Fifth International Confrerence on Computing Anticipatory Systems (CASYS'2001), Liege, Belgium, 13-18 August 2001].

V. Krasnoholovets, On the notion of the photon, Annales de la Fondation Louis de Broglie, vol. 27, no. 1, 93-100 (2002) (pdf file 108 kb ; also http://arXiv.org/abs/quant-ph/0202170).

V. Krasnoholovets, Gravitation as deduced from submicroscopic quantum mechanics (pdf file 236 kb ; also http://arXiv.org/abs/hep-th/0205196).

V. Krasnoholovets, Can quantum mechanics be cleared from conceptual difficulties? (Report prepared for the Wigner Centennial Conference, University Pecs, Hungary, July, 2002) (pdf file 124 kb; also http://arXiv.org/abs/quant-ph/0210050.

V. Krasnoholovets, Deterministic foundations of quantum mechanics (the abstract of the invited talk prepared for the conference "Foundations of Physics", University of Oxford, 9-12 Sep. 2002).

V. Krasnoholovets, Newton's static potential 1/r as a space relief formed by dynamic inertons, carriers of the gravitational interaction, <u>Spacetime &</u> <u>Substance</u>, vol. 4, no. 4, 145-151 (2003) [Talk prepared for the Second Ukrainian-Russian Conference 'Gravitation, Cosmology and Relativistic Astrophysics', Inst. TTR, Kharkiv, Ukraine, June, 23-27, 2003] (pdf file 144 kb).

V. Krasnoholovets, On the origin of conceptual difficulties of quantum mechanics, in Developments in Quantum Physics, Eds.: F. Columbus and V. Krasnoholovets, (Nova Science Publishers Inc., New York, 2004), pp. 85-109 (pdf file 524 kb ; also http://arXiv.org/abs/physics/0412122).

V. Krasnoholovets and J.-L. Tane, An extended interpretation of the thermodynamic theory including an additional energy associated with a decrease in mass, International Journal of Simulation and Process Modelling, vol. 2, nos. 1/2, 67-79 (2006) (pdf file 440 kb ; also http://arXiv.org/abs/physics/0605094).

V. Krasnoholovets and D.-Y.Chung, The space structure, force fields and quantum mechanics, American Institute of Physics - Conference Proceeding, vol. 839, pp. 198-211 (2006) Ed.: D. Dubois [The work was delivered by Dr. Peter Rowlands at CASYS'05 (The Conference on Anticipatory Computing Systems, Institute of Mathematics, Liege, Belgium, 8-13 August 2005) and received a "Best Paper Award" at the conference) (pdf file136 kb).

V. Krasnoholovets, Reasons for the gravitational mass and the problem of quantum gravity, in Ether, Spacetime and Cosmology, Vol. 1, Eds.: M. Duffy, J. Levy and V. Krasnoholovets (PD Publications, Liverpool, 2008), pp. 419-450 (ISBN 1 873 694 10 5) (pdf file 188 kb).

Papers related to the development of the concept of mass and gravity

M. Bounias and V. Krasnoholovets, Scanning the structure of ill-known spaces: Part 2. Principles of construction of physical space, Kybernetes: The International Journal of Systems and Cybernetics, vol. 32, no. 7/8, 976-1004 (2003) [in a special issue on some new theories about time and space] (pdf file 268 kb; also http://arXiv.org/abs/physics/0212004).

V. Krasnoholovets, On the nature of spin, inertia and gravity of a moving canonical particle, Indian Journal of Theoretical Physics, vol. 48, no. 2, 97-132 (2000) (pdf file 228 kb also http://arXiv.org/abs/quant-ph/0103110).

V. Krasnoholovets, On the mass of elementary carriers of gravitational interaction, Spacetime & Substance, vol. 2, no. 4, 169-170 (2001) (pdf file 96 kb ; also http://arXiv.org/abs/quant-ph/0201131).

V. Krasnoholovets, Gravitation as deduced from submicroscopic quantum mechanics pdf file 236 kb ; also http://arXiv.org/abs/hep-th/0205196.

V. Krasnoholovets, Reasons for the gravitational mass and the problem of quantum gravity, in Ether, Spacetime and cosmology, Vol. 1, Eds.: M. Duffy, J. Levy and V. Krasnoholovets (PD Publications, Liverpool, 2008), pp. 419-450 (ISBN 1 873 694 10 5) (pdf file 188 kb).

V. Krasnoholovets, Gravitational mass and the quantum gravity, Proceedings of the Conference Physical Interpretation of Relativity Theory X, Ed.: M. Duffy (Imperial College, London, 8 to 11 September 2006), to be published by PD Publications, Liverpool (2008).

V. Krasnoholovets, On variation of the velocity of light and the expansion of universe, in Ether, Spacetime and Cosmology, Vol. 2, Eds.: M. Duffy, J. Levy and V. Krasnoholovets (PD Publications, Liverpool), to be published.

V. Krasnoholovets, On microscopic interpretation of the phenomena predicted by the formalism of general relativity, in Ether, Spacetime and Cosmology, Vol. 3, Eds.: M. Duffy, J. Levy and V. Krasnoholovets (PD Publications, Liverpool), to be published.

V. Krasnoholovets, On variation in mass of entities in condensed media, submitted.

Papers related to the development of the origin of nuclear forces

V. Krasnoholovets, Reasons for nuclear forces in light of the constitution of the real space, Scientific Inquiry, vol. 7, no. 1, pp. 25-50 (2006) (pdf file 272 kb).

V. Krasnoholovets, On the nuclear coupling of proton and electron, to be submitted.

Papers related to the development of the concept of charge

V. Krasnoholovets, On the notion of the photon, Annales de la Fondation Louis de Broglie, vol. 27, no. 1, 93-100 (2002) (pdf file 108 kb ; also http://arXiv.org/abs/quant-ph/0202170).

M. Bounias and V. Krasnoholovets, Scanning the structure of ill-known spaces: Part 3. Distribution of topological structures at elementary and cosmic scales, Kybernetes: The International Journal of Systems and Cybernetics, vol. 32, no. 7/8, 1005-1020 (2003) [in a special issue on some new theories about time and space] (pdf file 196 kb; also http://arXiv.org/abs/physics/0301049).

V. Krasnoholovets, On the nature of the electric charge, Hadronic Journal Supplement, vol. 18, no. 4, pp. 425-456 (2003) (pdf file 380 kb ; also http://arXiv.org/abs/physics/0501132).

Papers related to the mathematical development of the concept of space

V. Krasnoholovets and V. Byckov, Real inertons against hypothetical gravitons. Experimental proof of the existence of inertons, Indian Journal of Theoretical Physics, vol. 48, no. 1, 1-23 (2000) (pdf file 228 kb; also http://arXiv.org/abs/quant-ph/0007027).

V. Krasnoholovets, On the theory of the anomalous photoelectric effect stemming from a substructure of matter waves, Indian Journal of Theoretical Physics, vol. 49, no. 1, 1-32 (2001) (pdf file 216 kb; also http://arXiv.org/abs/quant-ph/9906091).

V. Krasnoholovets, Collective dynamics of hydrogen atoms in the KIO3*HIO3 crystal dictated by a substructure of the hydrogen atoms' matter waves, pdf file 440 kb ; also http://arXiv.org/abs/cond-mat/0108417. [Report delivered at the XV International School-Seminar "Spectroscopy of Molecules and Crystals", Chernihiv, Ukraine, 23-30 June 2001].

V. Krasnoholovets, S. Skliarenko and O. Strokach, On the behavior of physical parameters of aqueous solutions affected by the inerton field of Teslar[®] Technology, International Journal of Modern Physics B, vol. 20, no. 1, 1-14 (2006) pdf file 284 kb.

V. Krasnoholovets, S. Skliarenko and O. Strokach, The study of the influence of a scalar physical field on aqueous solutions in a critical range, Journal of Molecular Liquids, vol. 127, issues 1-3, 50-52 (2006) (pdf file 96 kb).

E. Andreev, G. Dovbeshko and V. Krasnoholovets, The study of influence of the Teslar technology on aqueous solution of some biomolecules, direct access: <u>Research Letters in Physical Chemistry</u>, vol. 2007, Article ID 94286, 5 pages (2007). doi:10.1155/2007/94286; pdf file 1.4 Mb ; also http://www.hindawi.com/getarticle.aspx?doi=10.1155/2007/94286

E. Andreev, G. Dovbeshko and V. Krasnoholovets, The study of the influence of the Teslar[®] technology on the structure of water and H₂O₂ solution with vibration spectroscopy, submitted.

E. Andreev and V. Krasnoholovets, The influence of the Teslar® technology on aqueous solutions modeling rheological properties of liquid homeostasis of human organism, in state of submission

V. Krasnoholovets, N. Kukhtarev and T. Kukhtareva, Heavy electrons: Electron droplets generated by photogalvanic and pyroelectric effects, International Journal of Modern Physics B, vol. 20, no. 16, 2323-2337 (2006) (pdf file 236 kb) V. Didkovsky and V. Krasnoholovets, A first step of inerton astronomy, in state of submission

This page provides links to information about books that contain references, discussions or papers about inerton theory

Kaivarainen, A. (2007). Book: "The Hierarchic Theory of Liquids and Solids. Computerized applications for ice, water, and Biosystems." Nova Science Publishers, NY, USA.

ETHER SPACE-TIME & COSMOLOGY - Volume 1: Modern ether concepts, relativity and geometry - Michael C. Duffy and Joseph Levy Editors - Volodymyr Krasnoholovets Executive editor - for more information about this book, please click here.