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**BULLETIN**

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***I N T E L L E C T U A L  
A R C H I V E***

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Abstracts and the descriptions of works in  
Art and Science  
submitted to [www.IntellectualArchive.com](http://www.IntellectualArchive.com)

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Abstracts and the descriptions of works in Art and Science  
submitted to www.IntellectualArchive.com in July-December 2014

**ID #: 1288**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Jul 01, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Electric Hypersonic Space Aircraft**

**Abstract:**        Aviation, in general, and aerospace in particular needs new propulsion systems which allow a craft to reach high speeds by cheaper and more efficient methods. Author offers a new high efficiency propulsion system using electrons for acceleration of the craft. As this system does not heat the air, it does not have the heating limitations of conventional air ramjet hypersonic engines. Offered engine can produce a thrust from a zero flight speed up to the desired escape velocity for space launch. It can work in any planet atmosphere (gas, liquid) and at high altitude. The system can use apparatus surface for thrust and braking. For energy the system uses high voltage electricity which is not a problem if you have an appropriate electrostatic generator connected with any suitable engine. The new propulsion system applies to hypersonic long-range aviation, for launch of space craft and as a high efficiency rocket in solar space. This can be actualized using current technology.

**Web link:**        **[www.IntellectualArchive.com/getfile.php?file=kiMfHHbaOgX&orig\\_file=Article Electric Hypersonic Aircraft1 after Shmuel 6 21 14.docx](http://www.IntellectualArchive.com/getfile.php?file=kiMfHHbaOgX&orig_file=Article%20Electric%20Hypersonic%20Aircraft1%20after%20Shmuel%206%2021%2014.docx)**

**ID #: 1289**      **Natural Sciences / Physics / Electromagnetism**

**Submitted on:** Jul 02, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Electrostatic Generator and Electronic Transformer**

**Abstract:**        Transmission of high voltage by direct current (DC) over long distance has big advantages in comparison with the current transmission by alternative current (AC). But about one hundred years ago generating electricity by the magnetic method was easy and development led to a system centered on AC. Now AC is the dominant method. That is only a result of the quirks of electricity's historical development.

In present time it is possible to research and develop (R&D) high voltage electrostatic generators and inverters of high voltage DC in low voltage DC and in AC and using the old AC lines and devices.

Author offers a cheap high voltage electrostatic generator and transformer of high voltage DC to low voltage DC and DC in AC (any frequency and phases) and back. That may be adopted gradually and it will give significantly savings of electricity and energy.

**Web link:**        **[www.IntellectualArchive.com/getfile.php?file=xrtjJEMmQhD&orig\\_file=Article Electrostatic Generator and Transfer 6 28 14 after Joseph.doc](http://www.IntellectualArchive.com/getfile.php?file=xrtjJEMmQhD&orig_file=Article%20Electrostatic%20Generator%20and%20Transfer%206%2028%2014%20after%20Joseph.doc)**

**ID #: 1292**      **Literature / Internet articles / Analysis of literature**

**Submitted on:** Jul 05, 2014

**Author:**        **Yu.N. Klimov**

**Title:**            **Quantitative lexicology ??W. Longfellow's "The Song of Hiawatha", and the Russian translation of I.A. Bunin**

**Abstract:**        The purpose of this study is the application of quantitative lexicology ??W. Longfellow's "The Song of Hiawatha", and the Russian translation of I.A. Bunin by the following characteristics: number of letters; the number of word forms (NWF), the number of tokens, the volume of the dictionary (V); the number of tokens text (N); the total length of words; indices Herdan and AD; point computer lexical crossingover; the wealth of the dictionaries on the methodology Popescu - Altmann; modeling cumulative the number of tokens text and the total length of words ??W. Longfellow's "The Song of Hiawatha", and the Russian translation of I.A. Bunin; the index of exclusivity, the index of consistency, etc. And identification of similarities and differences of the texts.

Key words: number of letters, the number of word forms, the number of tokens, the volume of the dictionary, text volume, the ratio of the number of words and the number of tokens (TTR), the total

length of the words, the index Herdan, index, AD, point number of computer lexical crossingover, the average word length, the natural logarithm of the volume of the dictionary, the natural logarithm of the amount of text hapax legomena, hapax dislegomena, hapax trislegomena, the share of these hapax legomena in dictionaries and in source text and translation, the amount hapax legomena: amount hapax legomena and hapax dislegomena, the amount hapax legomena, hapax dislegomena and hapax trislegomena the share amounts hapax legomena and hapax dislegomena in the dictionary, the share of the amount hapax legomena, hapax dislegomena and hapax trislegomena in the dictionary.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=KILrZj4M7MI&orig\\_file=Quantitative lexicology Llongfello\\_IA\\_2014.docx](http://www.IntellectualArchive.com/getfile.php?file=KILrZj4M7MI&orig_file=Quantitative_lexicology_Llongfello_IA_2014.docx)

**ID #: 1293** Natural Sciences / Biology / Microbiology

**Submitted on:** Jul 07, 2014

**Author:** O.S.Vasiljeva, J.E.Vasiljeva

**Title:** The list of names of pathogenic bacteria. The first approach.

**Abstract:** The abstract.

Attempt to make the list of names of bacteria for which are known N?N,?°????N<, diseases of the person causing at least under any conditions is made.

Also the answer to a question as will write in GOOGLE is received: A«how many pathogenic bacteria?A». The incomplete list from 159 names is resulted.

Article is intended for schoolboys and students.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=bPJdNQh1ZJj&orig\\_file=2014\\_06\\_13.doc](http://www.IntellectualArchive.com/getfile.php?file=bPJdNQh1ZJj&orig_file=2014_06_13.doc)

**ID #: 1294** Natural Sciences / Biology / Microbiology

**Submitted on:** Jul 10, 2014

**Author:** O.S.Vasiljeva, J.E.Vasiljeva

**Title:** It is enough what temperature for industrial thermal sterilization in medicine.

**Abstract:** The abstract.

The hypothesis is stated that for achievement of the purpose of industrial thermal sterilization in medicine it is enough to result in a disabled condition of the squirrel of activators of illnesses. If fibers is irreversible are damaged, activator reproduction hardly probably. For what fibers need to be heated up to temperature 80 A°C and to sustain some time. Time of such endurance should become a subject of researches.

It is possible to expect reduction of loss of blood if operation to do by the surgical tool,

????N€?µN,N:?? to temperature of coagulation of fibers of blood (nearby 60 A°C).

Process of thermal sterilization in medicine keeping at temperature 80 A°C is energetically effective and opens prospect of application of thermal sterilization to wider list of materials.

Article is intended for schoolboys and students.

A© O.S.Vasiljeva, J.E.Vasiljeva, 2014

**Web link:** [www.IntellectualArchive.com/getfile.php?file=NZx0Pj4hCRq&orig\\_file=2014\\_06\\_14.doc](http://www.IntellectualArchive.com/getfile.php?file=NZx0Pj4hCRq&orig_file=2014_06_14.doc)

**ID #: 1297** Natural Sciences / Physics / General Physics

**Submitted on:** Jul 17, 2014

**Author:** Alejandro A. Torassa

**Title:** A Reformulation of Classical Mechanics

**Abstract:** This paper presents a reformulation of classical mechanics which is invariant under transformations between reference frames and which can be applied in any reference frame (rotating or non-rotating) (inertial or non-inertial) without the necessity of introducing fictitious forces.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=Wag0UiLRowa&orig\\_file=mechanics.pdf](http://www.IntellectualArchive.com/getfile.php?file=Wag0UiLRowa&orig_file=mechanics.pdf)

**ID #: 1300** Natural Sciences / Earth Sciences / Atmospheric science

**Submitted on:** Jul 22, 2014

**Author:** ??N????°????»???? ??.??.

**Title:** ?z ???µN...?°?????·???µ ???±N€?°·?????°????N? ??N€?°???°

**Abstract:**

ABSTRACT

The new hypothesis about the building mechanism of hail showers is made under atmosphere conditions. It is suggested, contrary to other famous theories that hail showers building is stipulated by the generation of high temperature in lightning strike in atmosphere. Quick water evaporation along and around the discharge channel leads to its rough freezing with the advent of hail showers of different size. The transition of zero-degree isotherm is not necessary for the building of hail showers; they are formed in the lower atmosphere. Storm is accompanied by hail showers. Hailstorm is observed only in case of severe thunderstorm.

**Web link:**

[www.IntellectualArchive.com/getfile.php?file=EWb7pFZmDxI&orig\\_file=???N????°????»????IntellectualArchive.pdf](http://www.IntellectualArchive.com/getfile.php?file=EWb7pFZmDxI&orig_file=???N????°????»????IntellectualArchive.pdf)

**ID #: 1301** Natural Sciences / Physics / General Physics

**Submitted on:** Jul 23, 2014

**Author:** Alexander Bolonkin

**Title:** Jet Electric Generator

**Abstract:**

Author offers and develops the theory of a new simple cheap efficient electric (electron) generator. This generator can convert pressure or kinetic energy of any non-conductive flow (gas, liquid) into direct current (DC). The generator can convert the mechanical energy of any engine into high voltage DC. One can convert the wind and water energy into electricity without turbine. One can convert the rest energy of an internal combustion engine or turbojet engine in electricity and increase its efficiency.

Key words: Jet Electric Generator, Electron generator, AB generator, Wind electric generator, Water electric generator, DC generator, High voltage generator.

**Web link:**

[www.IntellectualArchive.com/getfile.php?file=DNeEJgK26jE&orig\\_file=Article Jet Electric Generator 7 3 14 \(Autosaved\) after Joseph.doc](http://www.IntellectualArchive.com/getfile.php?file=DNeEJgK26jE&orig_file=Article Jet Electric Generator 7 3 14 (Autosaved) after Joseph.doc)

**ID #: 1302** Natural Sciences / Mathematics / Number theory

**Submitted on:** Jul 24, 2014

**Author:** Dhananjay P. Mehendale

**Title:** On Goldbach Conjecture

**Abstract:**

Goldbach conjecture asserts that every even integer greater than 4 is sum of two odd primes. Stated in a letter to Leonard Euler by Christian Goldbach in 1842, this is still an enduring unsolved problem. In this paper we develop a new simple strategy to settle this most easy to state problem which has baffled mathematical community for so long. We show that the existence of two odd primes for every even number greater than 4 to express it as their sum follows from the well known Chinese remainder theorem. We develop a method to actually determine a pair (and subsequently all pairs) of primes for any given even number to express it as their sum. For proof sake we will be using an easy equivalent of Goldbach conjecture. This easy equivalent leads to a congruence system and existence of solution for this congruence system is assured by Chinese remainder theorem. Each such solution actually provides a pair of primes to express given even number as their sum.

**Web link:**

[www.IntellectualArchive.com/getfile.php?file=MlkgQVRa2hH&orig\\_file=Goldbach1.pdf](http://www.IntellectualArchive.com/getfile.php?file=MlkgQVRa2hH&orig_file=Goldbach1.pdf)

**ID #: 1303** Natural Sciences / Physics / General Physics

**Submitted on:** Jul 25, 2014

**Author:** Vladimir Reznikov

**Title:** Principle of the optimal motion

**Abstract:**

This article is a practical conclusion of "hypothesis of the atomic (quantum) motion", registered on the site of intellectual protection: [http://www.a-priority.ru/Priority/1estestv/1estestv\\_catalog.html](http://www.a-priority.ru/Priority/1estestv/1estestv_catalog.html) registration number: A1B031 (project of the European Academy of Natural Sciences). Hypothesis of the atomic (quantum) motion refers to the section of physics: a€?Classical mechanicsa€?. This is hypothesis of discreteness of mechanical motion. It represents a new, more profound approach to

the second law of Newton. In brief about the hypothesis: the velocity of a body, moving under the influence of the force, grows not continuously in time, but discretely (quants); the cause of inertia of the body is its own gravitational field, because the inertial mass of a body is proportional to the mass gravity. Not yet reacted own gravitational field of a body to the action of force, body velocity will not change; the quant of the motion is the process of reaction of the own gravitational field of a body to the action of the force. This process is periodical and accompanied elementary deformation of a body (reaction gravitational field of a body) and subsequent reformation of a body in the direction of travel (after reaction of the field). Thus, the mechanism of body motion under the action of the force is a collection of very small deformations and reformation of a body. It reminds motion of the caterpillar. If force, that acts on the body, grows with velocity of reaction of the own gravity field of a body, then the quantum of the motion of this body will be most effective. It is a practical conclusion from the hypothesis, which built on the "Principle of optimal motion", - the alleged use of the hypothesis: for each mass of the various moving objects (people, vehicles, industrial equipment during switching on, alternating current - as the mass of the electrons, and so on) there its optimal (effective) acceleration, that allows to increase efficiency of motion. In this article there experimental verification of the hypothesis.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=NeOeMfZD9bD&orig\\_file=?YN€????N†????????N,?????°»N????????? ??????????μ????N? \(?????»???°N? ???μN€N????N?\).docx](http://www.IntellectualArchive.com/getfile.php?file=NeOeMfZD9bD&orig_file=?YN€????N†????????N,?????°»N????????? ??????????μ????N? (?????»???°N? ???μN€N????N?).docx)

**ID #: 1304** Natural Sciences / Physics / General Physics

**Submitted on:** Jul 26, 2014

**Author:** Vladimir Reznikov

**Title:** Princiuple of the optimal motion (in brief, english)

**Abstract:** This article is a practical conclusion of "hypothesis of the atomic (quantum) motion", registered on the site of intellectual protection: [http://www.a-priority.ru/Priority/1estestv/1estestv\\_catalog.html](http://www.a-priority.ru/Priority/1estestv/1estestv_catalog.html) registration number: A1B031 (project of the European Academy of Natural Sciences).Hypothesis of the atomic (quantum) motion refers to the section of physics: "Classical mechanics". This is hypothesis of discreteness of mechanical motion. It represents a new, more profound approach to the second law of Newton. In brief about the hypothesis: the velocity of a body, moving under the influence of the force, grows not continuously in time, but discretely (quants); the cause of inertia of the body is its own gravitational field, because the inertial mass of a body is proportional to the mass gravity. Not yet reacted own gravitational field of a body to the action of force, body velocity will not change; the quant of the motion is the process of reaction of the own gravitational field of a body to the action of the force. This process is periodical and accompanied elementary deformation of a body (reaction gravitational field of a body) and subsequent reformation of a body in the direction of travel (after reaction of the field). Thus, the mechanism of body motion under the action of the force is a collection of very small deformations and reformation of a body. It reminds motion of the caterpillar. If force, that acts on the body, grows with velocity of reaction of the own gravity field of a body, then the quantum of the motion of this body will be most effective. It is a practical conclusion from the hypothesis, which built on the "Principle of optimal motion", - the alleged use of the hypothesis: for each mass of the various moving objects (people, vehicles, industrial equipment during switching on, alternating current - as the mass of the electrons, and so on) there its optimal (effective) acceleration, that allows to increase efficiency of motion. In this article there experimental verification of the hypothesis.

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**ID #: 1306** Social Sciences / Other / Pedagogics

**Submitted on:** Jul 31, 2014

**Author:** Fokina Irina

**Title:**

**Abstract:**

**Web link:** [www.IntellectualArchive.com/getfile.php?file=1uhWMf3x9BK&orig\\_file=N?N,?°N,N?N? ?°?????????° ?????N†?????°»N????????μ N??»N??¶μ?????μ ???°?? ?°N€?????.?????????°N? ???—?" ?"??z.doc](http://www.IntellectualArchive.com/getfile.php?file=1uhWMf3x9BK&orig_file=N?N,?°N,N?N? ?°?????????° ?????N†?????°»N????????μ N??»N??¶μ?????μ ???°?? ?°N€?????.?????????°N? ???—?)

**ID #: 1307** Social Sciences / Psychology / Educational psychology

**Submitted on:** Jul 31, 2014



**ID #: 1310**      **Social Sciences / Law / Philosophy of law**  
**Submitted on:** Aug 04, 2014  
**Author:**        **John C. Hodge**  
**Title:**            **Scalar Theory of Everything model for steering humanity's growth**  
**Abstract:**        We are at a critical time in the evolution of our understanding of the physics of the universe and the evolution of the growth of humanity. Humans lack sufficient knowledge to predict outcomes of their actions. Life observations are applied to determine new science principles. The Scalar Theory of Everything model are applied to suggest how humanity can grow. New fundamental principles of science are proposed. The human species is must reorganize the national and international structure to allow competition and change. The measure of success in nature is survival. The national military authority must obey and enforce nature's laws. Competition must be allowed between religions, between approaches to technology, between approaches to society, and between approaches to the environment. Humanity should steer the future by creating a true nation organization. The best state that humanity can achieve is to be able to adapt to changes without the destruction of war or of national collapse.  
**Web link:**        **[www.IntellectualArchive.com/getfile.php?file=HagBvu5702d&orig\\_file=mselA.pdf](http://www.IntellectualArchive.com/getfile.php?file=HagBvu5702d&orig_file=mselA.pdf)**

**ID #: 1311**      **Natural Sciences / Physics / Particle physics**  
**Submitted on:** Aug 05, 2014  
**Author:**        **Miroslav Pardy**  
**Title:**            **Maximal Acceleration Problems in Particle Physics and Cosmology**  
**Abstract:**        We determine nonlinear transformations between coordinate systems which are mutually in a constant symmetrical accelerated motion. The maximal acceleration limit follows from the kinematical origin. Maximal acceleration is an analogue of the maximal velocity in special relativity. We derive the dependence of mass, length, time, Doppler effect, Cherenkov effect and transition radiation angle on acceleration as an analogue phenomena in special theory of relativity. The derived addition theorem for acceleration can play crucial role in modern particle physics and cosmology.  
**Web link:**        **[www.IntellectualArchive.com/getfile.php?file=8Kui0Ksrbrm&orig\\_file=maxaccintell.pdf](http://www.IntellectualArchive.com/getfile.php?file=8Kui0Ksrbrm&orig_file=maxaccintell.pdf)**

**ID #: 1312**      **Natural Sciences / Physics / General Physics**  
**Submitted on:** Aug 09, 2014  
**Author:**        **Alexander Bolonkin**  
**Title:**            **Method for Interstellar Flight**  
**Abstract:**        The basis of any Universe is energy. Energy may be positive or negative. Negative energy produces negative matter. Negative matter repels our (positive) matter. Using this effect the author offers a space propulsion system which allows reaching by space ship a speed close to light speed and to enable massive retrieval of extraterrestrial materials to construct works in space.  
Key words: Interstellar Flight, Interstellar propulsion, negative energy, negative matter.  
**Web link:**        **[www.IntellectualArchive.com/getfile.php?file=MYHXGjJr4O&orig\\_file=Article Interstellar flight 7 20 14 after Joseph.doc](http://www.IntellectualArchive.com/getfile.php?file=MYHXGjJr4O&orig_file=Article Interstellar flight 7 20 14 after Joseph.doc)**

**ID #: 1316**      **Natural Sciences / Earth Sciences / Atmospheric science**  
**Submitted on:** Aug 14, 2014  
**Author:**        **??N????»???? ??.**  
**Title:**            **THE WAY TO PREVENT HAIL**  
**Abstract:**        Suggested an original method to prevent hail with lightning rod  
**Web link:**        **[www.IntellectualArchive.com/getfile.php?file=r663mclg3IQ&orig\\_file=THE WAY TO PREVENT HAIL.pdf](http://www.IntellectualArchive.com/getfile.php?file=r663mclg3IQ&orig_file=THE WAY TO PREVENT HAIL.pdf)**

**ID #: 1317**      **Natural Sciences / Physics / Quantum field theory**  
**Submitted on:** Aug 15, 2014

**Author:** Ervin Goldfain  
**Title:** **Fractal Propagators and the Asymptotic Sectors of Quantum Field theory**  
**Abstract:** Charged Dirac propagators in the deep infrared (IR) and ultraviolet (UV) sectors of particle physics no longer follow the prescription of perturbative quantum field theory (QFT). On sufficiently short distance scales, they acquire a fractal structure from radiative corrections contributed by gauge bosons. Here we show how fractal propagators in QFT may be analyzed using fractional field theory on space-times having minimal deviations from four-dimensionality. An intriguing consequence of this approach is the emergence of classical gravity as long-range and ultra-weak excitation of the Higgs condensate.  
**Web link:** [www.IntellectualArchive.com/getfile.php?file=5NKjvMUedb&orig\\_file=Fractal Propagators and the Asymptotic Sectors of Quantum Field Theory.pdf](http://www.IntellectualArchive.com/getfile.php?file=5NKjvMUedb&orig_file=Fractal Propagators and the Asymptotic Sectors of Quantum Field Theory.pdf)

**ID #: 1319** **Natural Sciences / Earth Sciences / Atmospheric science**

**Submitted on:** Aug 23, 2014

**Author:** Ismailov Sokhrab

**Title:** **THE WAY TO PREVENT HAIL**

**Abstract:** Suggested an original method to prevent hail with lightning rod

**Web link:** [www.IntellectualArchive.com/getfile.php?file=EkxJuYF9tWT&orig\\_file=THE WAY TO PREVENT HAIL.pdf](http://www.IntellectualArchive.com/getfile.php?file=EkxJuYF9tWT&orig_file=THE WAY TO PREVENT HAIL.pdf)

**ID #: 1320** **Literature / Internet articles / Analysis of literature**

**Submitted on:** Aug 25, 2014

**Author:** Yu.N. Klimov

**Title:** **Quantitative lexicology Church Slavonic and Russian texts Psalter**

**Abstract:** Abstracts: Are resulted quantitative characteristics of Church Slavonic and Russian texts Psalter. Similarity and distinction these Psaltir is shown. Our hypothesis about equality of the text of text translation of the original is confirmed.  
Keywords: Psalter, Russian, Church Slavonic language, quantitative lexicology, translation, number of word forms, number of word usages, the relation of number of word forms to number of word usages, natural logarithms of number of word forms, natural logarithms of number of word usages, index Herdan's , index ??D, an index of exclusiveness, an index of a constancy, a point computer lexical crossingover, approximate riches of the dictionary, the specified riches of the dictionary, hapax legomena, hapax dislegomena, hapax trislegomena, a share hapax legomena in the dictionary, a share hapax dislegomena in the dictionary, a share hapax trislegomena in the dictionary, a share hapax legomena in the text, a share hapax dislegomena in the text, a share hapax trislegomena in the text, the sum hapax legomena, hapax dislegomena, the sum hapax legomena, hapax dislegomena, hapax trislegomena, a share of the sum hapax legomena and hapax dislegomena in the dictionary, a share of the sum hapax legomena, hapax dislegomena, hapax trislegomena in the dictionary, Share of the sum hapax legomena and hapax dislegomena in the text, a share of the sum hapax legomena, hapax dislegomena, hapax trislegomena in the text and the attitude(relation) of number of word usages to number of word forms, modeling, effect of smooth surface.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=Lq43hN0fvj0&orig\\_file=Quantitative lexicology Church Slavonic and Russian texts Psaltir.docx](http://www.IntellectualArchive.com/getfile.php?file=Lq43hN0fvj0&orig_file=Quantitative lexicology Church Slavonic and Russian texts Psaltir.docx)

**ID #: 1321** **Natural Sciences / Astronomy / Astrophysics**

**Submitted on:** Aug 25, 2014

**Author:** Mark Zilberman

**Title:** **"Dyson Spheres" as an Alternative to the Dark Matter Explanation of Hidden Masses in Galaxies**

**Abstract:** The concept of the "Dyson Sphere" ("DS" below) is well known - to build an engineering construction around a star to utilize as much of the star's energy as it is possible. A star within the "DS" adds the star's gravity into the gravity of the galaxy containing this star, even if the star itself is hidden. Therefore if "DS" exist, the total gravity of light-emitting objects in galaxies must be less than the gravity of the entire galaxy. In fact we observe this effect, which is a well-known effect of "hidden

mass" in galaxies. To solve the "hidden mass" puzzle, physicists introduced a new kind of matter - "dark matter". However (as far as the author knows) the "DS" were never seriously taken into account as a possible solution of the "hidden mass" problem in scientific literature. Researches of gravitational microlensing put strict limits to the percentage of regular cosmic objects that can pretend to solve the "hidden mass" problem. However these researches are not fully suitable for analysis of "DS" because "DS" have no negligible size and because they do not only amplify the brightness of stars (microlensing) but also de-amplify the brightness of a stars when they travel behind the "DS". Since minimal size of "DS" must not be less than the habitable zone, we infer the "DS" radius for example for our Sun to be between  $1.48 \times 10^8$  and  $2.54 \times 10^8$  km or about 1/6 of the gravitational microlensing size. The data accumulated by gravitational microlensing research can also probably be used for testing of the "DS" existence. However we should not only look for A-shaped graph of brightness that is created during the movement of a star behind the gravitational lens, as well as for more complex graphs, in particularly for M-shaped and even for U-shaped graphs.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=OPNumifQOHa&orig\\_file=Dyson Spheres as an alternative to the Dark Matter explanation of hidden masses in Galaxies.pdf](http://www.IntellectualArchive.com/getfile.php?file=OPNumifQOHa&orig_file=Dyson Spheres as an alternative to the Dark Matter explanation of hidden masses in Galaxies.pdf)

**ID #: 1323**      **Natural Sciences / Astronomy / General physics**

**Submitted on:** Aug 31, 2014

**Author:**      **Alexander Bolonkin**

**Title:**        **Terraforming of planets and Space Objects**

**Abstract:**    The current physics believes that vacuum can produce energy and Universes. The basis of any Universe is energy. Author assumes: energy may be positive or negative. Positive energy produces our positive matter, negative energy produces negative matter. Using this effect the author offers the formatting the current planets of Solar system, making them suitable for people, for humanity. That include: the production of Earth atmosphere, water, magnetic field in planets and natural satellites, change their angle speed, and transportation them to Earth orbit. Negative matter repels our (positive) matter. Using this effect the author offers a space propulsion system which allows reaching by space ship a speed close to light speed and to enable massive retrieval of extraterrestrial materials to construct works in space. That may be the best method colonization the space, Solar System and Universe. Concept of negative energy also allows solving the many very important problems of humanity. For example, humanity can create any artificial material, food, travel to other stars and possible (in future) create a new Universe.

**Web link:**    [www.IntellectualArchive.com/getfile.php?file=KJ6lLgLA00&orig\\_file=Article Terraforming of planets for arch 8 10 14.docx](http://www.IntellectualArchive.com/getfile.php?file=KJ6lLgLA00&orig_file=Article Terraforming of planets for arch 8 10 14.docx)

**ID #: 1324**      **Social Sciences / Other / Linguistics**

**Submitted on:** Sep 03, 2014

**Author:**      **Kirillov P., Pozdeeva D.**

**Title:**        **Theory of Discourse as a Part of Socio-Humanitarian Knowledge**

**Abstract:**    In this article the authors analyze the interpretation of the term discourse as a part of the modern socio-humanitarian knowledge. The authors mark the most common ways of methodological construction of the discourse concept by analyzing the term discourse as a term of linguistic and philosophical sciences. A polysemantic attempt of discourse interpretation as a language, philosophical and methodological phenomenon as a part of modern scientific knowledge is offered.

**Web link:**    [www.IntellectualArchive.com/getfile.php?file=i00NvchIFOi&orig\\_file=Discourse as a part of socio \(????N,??N??N...N€? ???μ????N<??\).docx](http://www.IntellectualArchive.com/getfile.php?file=i00NvchIFOi&orig_file=Discourse as a part of socio (????N,??N??N...N€? ???μ????N<??).docx)

**ID #: 1326**      **Natural Sciences / Physics / Relativity**

**Submitted on:** Sep 08, 2014

**Author:**      **Miroslav Pardy**

**Title:**        **Thomas Precession by Uniform Acceleration**

**Abstract:**    We determine nonlinear transformations between coordinate systems which are mutually in a constant symmetrical accelerated motion. The maximal acceleration limit follows from the kinematical origin and it is an analogue of the maximal velocity in special relativity. We derive the dependence of mass, length, time, Doppler effect, Cherenkov effect and transition radiation angle on acceleration as an analogue phenomena in special theory of relativity. The

last application of our method is the Thomas precession by uniform acceleration which can play the crucial role in modern particle physics and cosmology

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**ID #: 1328**      **Natural Sciences / Physics / Quantum field theory**

**Submitted on:** Sep 09, 2014

**Author:**      **Ervin Goldfain**

**Title:**        **Fractal Spacetime and the Dynamic Generation of Mass Scales in Field theory**

**Abstract:**    As of today, the mechanism underlying the generation of mass scales in field theory remains elusive. Here we show how the concept of fractal space-time having minimal deviations from four-dimensionality (the so-called minimal fractal manifold defined through  $E^D = 4 - D$ , with  $E^D \ll 1$ ) can naturally account for the onset of these scales. A counter-intuitive outcome of this analysis is the deep link between the minimal fractal manifold and the holographic principle.

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**ID #: 1329**      **Social Sciences / Communication / Linguistics**

**Submitted on:** Sep 10, 2014

**Author:**      **Serhii Zasiiekin**

**Title:**        **Dr.**

**Abstract:**    The paper outlines the study of translation S-universals and is based both on the psycholinguistic model of literary translation, which combines two approaches to language organization in today's neuroscience – cognitivism and connectionism, and on the experimental data that demonstrate its validity. A free word association test was used to identify a translator's cognitive style as a universal tendency determining his linguistic choice. This psycholinguistic tool helped explore the ways how the meaning of the original text was reconstructed in the target text by the selected group of novice translators. A quantitative content analysis and psycholinguistic text analysis were applied for the purpose of studying the correlation between specific textual features of authors and those of the translators. As the empirical study showed, the S-universals maintain the status of common strategies depending on translator's cognitive style. A think aloud protocol (TAP) analysis was used to explore the ways in which the meaning of the original text was reconstructed in the target text by the novice translators. A content analysis and psycholinguistic text analysis were applied for the purpose of studying the correlation between specific textual features of authors and those of translators. The results of the empirical study showed that the observed S-universals, while maintaining the status of common strategies, clearly depend on translator's cognitive style (analytical or synthetic), and his dominant channel (visual, auditory, kinesthetic) of source text perception.

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**ID #: 1331**      **Social Sciences / Psychology / Cognitive psychology**

**Submitted on:** Sep 10, 2014

**Author:**      **Larysa Zasiiekina**

**Title:**        **Prof.**

**Abstract:**    The study is based on two main scientific paradigms – cognitive and discursive. The process of social categorization by American and Ukrainian students has been focused on in a psycholinguistic experiment. Social schemes (personal schemes, action schemes, self-schemes, role schemes, function schemes) in word meanings for words denoting social objects suggested by Ukrainian (n=25, 12 female and 13 male, mean age 21,7A±3,0 years, Lesya Ukrainka Eastern European National Universities, Lutsk) and American (n=25, 15 female and 10 male, mean age 22,4A±3,0 years, University of Central Arkansas, Conway, USA) students were analyzed. The results of comparative analysis of word meanings based on social categories (schemes) of Ukrainian and American students show that the most frequent social categories among American students are self-schemes, which are connected with individualism of national character of western-culture people. The most frequent social categories among Ukrainian students are action schemes which express pragmatic character of Ukrainian culture. Despite of the various distributions of social schemes in Ukrainian and American students' answers, the indifferent to culture criteria for social

categorization are revealed. The results of psycholinguistic experiment show the dual cognitive and discursive character of social categorization which demonstrates the degree of culture impact on human cognition and language.

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**ID #: 1332** Social Sciences / Education / Special education

**Submitted on:** Sep 10, 2014

**Author:** Gulbahar Abilova

**Title:** Using internet technology in the process of teaching foreign languages in secondary schools

**Abstract:** This article research to raise the ways of using optimization of teaching process with the help of internet technology

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**ID #: 1333** Social Sciences / Economics / International

**Submitted on:** Sep 10, 2014

**Author:** Ashot A. Tavadyan

**Title:** Sensitivity Thresholds of Countries with Transitional Economies: The Case of Armenia

**Abstract:** The analysis of sensitivity thresholds of economy enables to identify the critical characteristics of key economic processes of transition from quantity to a new economic quality. The complex investigation of sensitivity thresholds of economy conduces to the identification of their interrelations. Since uncertainty intervals are present in economy, it is possible to present only the interval forecast of sensitivity thresholds. The sensitivity threshold of economic indicators occurs when the probability of transition to a new economic quality substantially increases in this or that sphere of economy. The study of sensitivity thresholds is especially important for a country with transitional economy as only the threshold values of key economic indicators make the effective realization of market economy potential possible. The sensitivity thresholds of economic processes create benchmarks of economy that decisions made, must correspond to.

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**ID #: 1334** Natural Sciences / Other / Theatre

**Submitted on:** Sep 11, 2014

**Author:** Sofia Trykolenko

**Title:** Metaphorization chamber scenic environment Aleksey Kuzhelnoho

**Abstract:** Abstract: Trykolenko ST "Metaphorization chamber scenic environment Aleksey Kuzhelnoho." The article deals with four performances of the People's Artist of Ukraine Aleksey Kuzhelnoho - especially their interpretation of staging and directing scenes. Individual and common features of his performances to chamber stage-specific modules to form the composition stage space, symbolic elements that reinforce the philosophical background performances. Research of Ukrainian, Russian and Western art and drama driven by the context of the four performances of Kiev Academic Theatre Arts Workshop "Constellation": "Oscar - God", "Tsvetaeva + / - Pasternak", "Unknown About Love". The combination of all components of performance in a single harmonious whole: synthesis of fine arts, music, dance, plastic and visual arts, the use of new technologies for setting demonstrate mastery Aleksey Pavlovich as director and set designer and artist at the same time. The environment plays examined in this article are built on the metaphorical and symbolic elements, considerable emphasis is given projection and lighting effects

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**ID #: 1335** Natural Sciences / Mathematics / Numerical analysis

**Submitted on:** Sep 12, 2014

**Author:** A.N. Khomchenko and D. Topchy  
**Title:** Local functions given integral average  
**Abstract:** Purpose -- to establish and tabulate the integral relationship between the average and the weights for the direct construction of serendipity elements (12 nodes) from the corresponding Lagrangian element (16 nodes). The proposed procedure eliminates the need for making condensation element matrix equation, and is suitable for the general case of any exception parameters of nodes located within the element.  
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**ID #: 1340** Natural Sciences / Physics / Particle physics

**Submitted on:** Sep 16, 2014

**Author:** Ervin Goldfain

**Title:** A Brief Note on Charge Quantization from Fractal Distributions

**Abstract:** This brief note points out that fractal spacetimes having minimal deviations from integer dimensionality naturally lead to the emergence of fractional magnetic charges. Although these are un-observable at energy scales significantly lower than the electroweak scale, their cumulative contribution may become relevant for charge quantization according to Dirac's theory of magnetic monopoles.

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**ID #: 1344** Social Sciences / Economics / Law and economics

**Submitted on:** Sep 18, 2014

**Author:** Lashchak Viktor, Lashchak Taras

**Title:** ECONOMIC FUNDAMENTALS OF MECHANISM OF CONSUMER PROTECTION, AND DEVELOPMENT PRIORITY.

**Abstract:** Most scholars consider the conceptual space of consumer protection only from a legal point of view, analyzing the underlying economic conditions that affect the quality and functional characteristics of consumer goods. In our opinion based on the passage of goods in temporary space should make gradation consumer protection as a specific control process for the previous, current and ex defense which are respectively characterized by some financial leverage effect. It is essential in order to avoid admission to the market of quality products not familiar with modern developments in the world organization of national standards bodies.

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**ID #: 1345** Social Sciences / Education / Evaluation

**Submitted on:** Sep 18, 2014

**Author:** Matviienko Olena

**Title:** Theoretical Basics of Preparation of Teachers to Pedagogical Interaction with Children of Various Age

**Abstract:** In this article it is developed and scientifically grounded system of preparation of future teachers to pedagogical co-operation. The model of preparation of future teacher is worked out to pedagogical co-operation in an educational-educates progress.

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**ID #: 1349** Social Sciences / History / Social history

**Submitted on:** Sep 19, 2014

**Author:** Risyukova Yuliya

**Title:** THE ROLE OF COMPUTER-MEDIATED EDUCATION IN FORMING WEB-ACTIVITY

**Abstract:** Abstract. This article is devoted to implementation pedagogical techniques in ICT, particularly in Computer Mediated Community. This implementation will impact positively on the level of education quality. Also there are presented the aspects of forming web-activity with help of CMC.

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**ID #: 1352**      **Natural Sciences / Physics / Gravitation Theory (Relativity)**

**Submitted on:** Sep 27, 2014

**Author:**      **Alexander Shalyt-Margolin**

**Title:**      **The Gravity on All Energy Scales. Some Significant Examples and One No-Go Theorem**

**Abstract:**      At the present time a theory of gravity is subdivided into two absolutely different parts: low-energy theory represented by the General Relativity (GR) and hypothetical high-energy theory -- Quantum Gravity (QG) -- that is still unresolved. In this way there is a certain dichotomy in gravity considered as a unified theory. This work is an effort to reveal the main causes for such a dichotomy; the means for departure from this dichotomy are proposed. By one of the approaches gravity is considered at low and at high energies as a single whole dependent on the same parameters, which are discrete for the fundamental length if present. There are grounds to believe that in this case the mathematical formalism must be modified -- all infinitesimal space-time quantities must be replaced by the corresponding finite quantities dependent on the existent energies. Further this paper shows that, provided a theory involves the minimal length, the parameters associated with it will appear in several models of general relativity and cosmology. But smallness of these parameters and smoothness of their variation at low energies makes it possible to consider them practically continuous, the models themselves being in essence independent of the parameter variations. At high energies these parameters are really discrete and lead to equations with a discrete set of solutions. Consideration is given to some consequences and, in particular, to some differences between the, so far, hypothetical theory involving the minimal length and general relativity. Finally, one fairly evident no-go theorem is treated to demonstrate that the entropic approach to gravity in its present form is impossible in the case of the minimal length theory.

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**ID #: 1353**      **Natural Sciences / Physics / Gravitation Theory (Relativity)**

**Submitted on:** Sep 27, 2014

**Author:**      **Alexander Shalyt-Margolin**

**Title:**      **Minimal Length and the Existence of Some Infinitesimal Quantities in Quantum Theory and Gravity**

**Abstract:**      In this work it is demonstrated that, provided a theory involves a minimal length, this theory must be free from such infinitesimal quantities as infinitely small variations in surface of the holographic screen, its volume, and entropy. The corresponding infinitesimal quantities in this case must be replaced by the A«minimal variations possibleA» -- finite quantities dependent on the existent energies. As a result, the initial low-energy theory (quantum theory or general relativity) inevitably must be replaced by a minimal-length theory that gives very close results but operates with absolutely other mathematical apparatus.

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**ID #: 1354**      **Natural Sciences / Mathematics / Information theory**

**Submitted on:** Sep 28, 2014

**Author:**      **T.G.Petrov**

**Title:**      **а€?SOFTа€? SYSTEM OF COORDINATES IN THE CORRECT SIMPLEXES**

**Abstract:**      Abstract  
Purpose of this article is to describe language-method RHAT as a coordinate system of regions in space limited by regular simplex. Here R is a sequence of composition components by decrease а€? names of sectors in the simplex distinguished by hypermedians; H - Shannon information entropy а€? entropy of mixing; A а€? anentropy а€? entropy of separation; T а€? tolerance, "entropy of purification". The arrangement of coordinates allows obtaining an alphabetical hierarchical periodic system of compositions. Diagrams HA or HT are designed to display random and ordered sets of compositions.

Key words: regular simplex; coordinate system of region; information entropy; entropy of separation; anentropy; ultrapurification; tolerance; information language; hypermedian.

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**ID #: 1355**      **Natural Sciences / Computer Science / Evolutionary computation**

**Submitted on:** Sep 30, 2014

**Author:**        **Branislav Tanasic**

**Title:**            **Internet - from Arpanet to three billion users**

**Abstract:**        Abstract

The Internet has moved all the boundaries, or rather erased and made the most important step in the process of globalization. Today, computer, Internet and mobile phone component, almost inseparable part of modern man in the workplace and in private. From propagating through the network to book airline tickets, hotel reservations, scheduling urgent to any adjustment of hairstyles - all is possible through the Internet, and now use your mobile phone. We tried to focus on the development of the Internet consider how these innovations gradually occupy their place in business systems and our lives.

Key words: Internet, Arpanet, protocol, computer.

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**ID #: 1357**      **Natural Sciences / Computer Science / Evolutionary computation**

**Submitted on:** Sep 30, 2014

**Author:**        **Branislav Tanasic**

**Title:**            **From Ishango bone to plasma screen**

**Abstract:**        Abstract

From the very beginnings of the human species would need some assistance, using a device that would be recorded the events, broadcast messages or exactly calculate important dates. What is the path traveled by computer Isango prehistoric bones over the IBM System / 360 Models 75s - the unit that carried out a complex task to take people to the Moon and safely return back, to the personal computer with plasma screen. Initially, the computer is designed as an auxiliary device for performing complex multi-figure calculation. Then used as a control device, which should enable the automation of industrial machines, computer constantly evolved. The modern computer is a complex electronic device, such design and architecture that can perform the multiplex operations.

Interconnected in a very composite system, consists of a vast global network we call the Internet. Options such connected computers are almost limitless. We can safely conclude, that there is no activity that is largely not rely on the personal computer or the wiring in his system.

Key words: Device, gear, electronic tube, transistor, microprocesor.

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**ID #: 1359**      **Natural Sciences / Physics / Relativity**

**Submitted on:** Oct 01, 2014

**Author:**        **Ervin Goldfain**

**Title:**            **On the Resilience of Special Relativity**

**Abstract:**        Despite uncountable claims to the contrary, Special Relativity (SR) is an unbroken theory of Nature. All attempts to refute its basis or predictions have failed and will continue to fall short as time goes by. The latest SR confirmation in Darmstadt was carried out with an unprecedented level of experimental accuracy. It ought to give serious pause for reflection to all those rejecting SR and the Poincaré symmetry.

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**ID #: 1362**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title: FEMTOTECHNOLOGY: THE STRONGEST AB-MATTER FOR AEROSPACE**

**Abstract:** Aerospace, aviation particularly need, in any era, the strongest and most thermostable materials available, often at nearly any price. The Space Elevator, space ships (especially during atmospheric reentry), rocket combustion chambers, thermally challenged engine surfaces, hypersonic aircraft materials better than any now available, with undreamed of performance as the reward if obtained. As it is shown in this research, the offered new material allows greatly to improve the all characteristics of space ships, rockets, engines and aircraft and design new types space, propulsion, aviation systems.

At present the term "nanotechnology"™ is well known "in its"™ ideal form, the flawless and completely controlled design of conventional molecular matter from molecules or atoms. But even this yet unachieved goal is not the end of material science possibilities. The author herein offers the idea of design of new forms of nuclear matter from nucleons (neutrons, protons), electrons, and other nuclear particles. He shows this new "AB-Matter"™ has extraordinary properties (for example, tensile strength, stiffness, hardness, critical temperature, superconductivity, supertransparency, zero friction, etc.), which are up to millions of times better than corresponding properties of conventional molecular matter. He shows concepts of design for space ships, rockets, aircraft, sea ships, transportation, thermonuclear reactors, constructions, and so on from nuclear matter. These vehicles will have unbelievable possibilities (e.g., invisibility, ghost-like penetration through any walls and armour, protection from nuclear bomb explosions and any radiation flux, etc.) Nanotechnology, in near term prospect, operates with objects (molecules and atoms) having the size in nanometer (10-9 m). The author here outlines perhaps more distant operations with objects (nuclei) having size in the femtometer range, (10-15 m, millions of times less smaller than the nanometer scale). The name of this new technology is femtotechnology.

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**ID #: 1363** Natural Sciences / Physics / General Physics

**Submitted on:** Oct 04, 2014

**Author:** Alexander Bolonkin

**Title:** Inflatable Security and Prosperity AB-Blanket for City

**Abstract:** In a series of articles (see references below) the author has offered a means to cover a city or other important large installation, region or sub-region by a transparent thin-film supported by a small additional air overpressure under the light-weight form of an "AB Dome". That allows keeping the outside atmospheric conditions (for example weather) away from the interior of the inflatable "AB Dome", protecting any city by its physical presence from chemical, biological, and radioactive weapons and even (partially) from aviation accidents/terrorism and possibly even some small tactical nuclear device explosions.

The building of a gigantic inflatable "AB Dome" over a vacant flat land or water surface is not difficult from a construction viewpoint. The cover is spread on a flat surface and a ventilator pumps air under the film cover and lifts the new dome into place (inflation requires many hours). However, if we want to cover a city, garden, forest or other obstacle course (as opposed to an deserted, empty or mowed field) we cannot easily deploy the thin film over buildings or trees without risking damage to it by snagging and other installation complications. In this article, it is suggested a new method which solves this vexing building problem. The idea is to design a double film blanket filled by light gas (for example, methane, hydrogen, or helium - although of these, methane will be the most practical and least leaky). Sections of this improved "AB Dome", now designated the "AB Blanket", are lighter than air and could fly in Earth's atmosphere. They can be made on a flat area (serving simultaneously as an assembly area) and be delivered by dirigible or large industrial helicopter to station at altitude over the city. Here they connect to the already assembled AB Blanket ground-based subassemblies, cover the city in a new variant of the earlier "AB Dome" and protect it from bad weather, chemical, biological and radioactive fallout or other particulates. After finishing the building of any AB Dome building the light gas can be changed, totally replaced by normal air. Two "AB Blanket" macro-projects, one for Manhattan Island (NY City, USA borough) and one for Moscow (Russia) are targets herein for a sample computation.

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**ID #: 1364** Natural Sciences / Physics / General Physics

**Submitted on:** Oct 04, 2014

**Author:** Alexander Bolonkin

**Title:** **Aerial High Altitude Gas Pipeline**

**Abstract:** Design of new cheap aerial pipelines, a large flexible tube deployed at high altitude, for delivery of natural (fuel) gas over a long distance is delineated. The main component of the natural gas is methane, which has a specific weight less than air. The lift force of one cubic meter of methane equals approximately 0.5 kg. The lightweight film flexible pipeline can be located in air at high altitude and, as such, does not damage the environment. This aerial pipeline dramatically decreases the cost and the time of construction relative to conventional pipelines of steel, which saves energy and greatly lowers the capital cost of construction.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=DE1ftSDJx8m&orig\\_file=Article High Altitude Gas Pipeline for JNGSE after Joseph 4 15 10.doc](http://www.IntellectualArchive.com/getfile.php?file=DE1ftSDJx8m&orig_file=Article High Altitude Gas Pipeline for JNGSE after Joseph 4 15 10.doc)

**ID #: 1365** **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:** **Alexander Bolonkin**

**Title:** **Production of Fresh Water by Exhaust Gas**

**Abstract:** A new, cheap method for the extraction of freshwater from the sea which is fundamentally distinct from all existing methods that extract freshwater from the sea water is proposed. This method uses the hot exhaust gas (smog) of industry (for example, after a gas turbine used to turn an electric generator) and sea water. By using the temperature difference productively, this method needs comparatively small energy input -- only for pumping water and air, not for heating or cooling. This new environmentally friendly method may be used at any point in the Earth located not far from any sea. There are three working versions: (1) Underwater heater and tube cooler; (2) Douche heater and douche cooler (immersion heater/cooler); (3) Underwater heater and underwater cooler. The installation also clears the exhaust gas from ashes and soot, sulfur dioxide (SO<sub>2</sub>). The water having the high concentration carbon dioxide (CO<sub>2</sub>) may be used for growing algae for biofuel and feed.

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**ID #: 1366** **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:** **Alexander Bolonkin**

**Title:** **Magnetic Suspended AB-Structures and Motionless Space Stations**

**Abstract:** In this article the author provides new ideas, theory and computations for building with the current technology low cost magnetic suspended structures and motionless space stations up to 37,000 (geosynchronous orbit) kilometers of altitude. These structures (towers) can be used for launching of spaceships, radio, television, and communication transmissions, for tourism, scientific observation of the Earth's surface, weather of the top atmosphere and military radiolocation. Main idea and attribute of invention is the following: The suspended structures (space station) are supported by a MAGNETIC column which has a mass (weight) close to zero. Author estimates two projects of motionless magnetic space stations: one of height = to 100 km and the second project up to 37000 km (geosynchronous orbit).

These projects are not expensive and do not require a high crane or complex technology. They do require superconductive material and a thin strong film composed of artificial fibers. Both materials are fabricated by current industry. The structures (space stations) can easily be built using present technology without rockets. The construction is built by unreeling of a special roll. Structures (towers) can be used (for communication, tourism, etc.) during the construction process and provide self-financing for further construction. The building does not require work at high altitudes; all construction can be done at the Earth's surface.

The transport system (climber) consists of a very simple magnetic engine provided by electricity from a wire connecting the structure with the Earth.

Problems involving security, control, repair, and stability of the proposed towers are shortly considered. The author is prepared to discuss these and other problems with serious organizations desiring to research and develop this project.

Magnetic towers may also become a civic symbol giving any city a distinctive landmark such as the Eiffel Tower in Paris or the Ostankino Tower (Russian: Останкино, Останкинская телебашня) in Moscow.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=J2pVOoc41D5&orig\\_file=Article Suspended](http://www.IntellectualArchive.com/getfile.php?file=J2pVOoc41D5&orig_file=Article Suspended)

**ID #: 1368**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**      **Alexander Bolonkin**

**Title:**      **Review of new ideas, innovation of non-rocket propulsion systems for Space Launch and Flight (Part 1)**

**Abstract:** In the past years the author and other scientists have published a series of new methods which promise to revolutionize the space propulsion systems, space launching and flight. These include the cable propulsion system, circle propulsion system and space keeper, kinetic propulsion system, gas-tube propulsion system, sliding rotary method, asteroid employment, electromagnetic accelerator, Sun and magnetic sail, solar wind sail, radioisotope sail, electrostatic space sail, laser beam propulsion system, kinetic anti-gravitator (repulsator), Earth-Moon non-rocket and Earth-Mars non-rocket transport system, multi-reflective beam propulsion system, electrostatic levitation, etc. Some of them have the potential to decrease launch costs thousands of time, other allow to change the speed and direction of space apparatus without the spending of fuel. The author reviews and summarizes some revolutionary propulsion systems for scientists, engineers, inventors, students and the public.(see also Part 2-3.

**Web link:**      **[www.IntellectualArchive.com/getfile.php?file=MVdQJjZOQN8&orig\\_file=Review Part1 New Non Rocket PS ForArxiv 3 23 11.docx](http://www.IntellectualArchive.com/getfile.php?file=MVdQJjZOQN8&orig_file=Review Part1 New Non Rocket PS ForArxiv 3 23 11.docx)**

**ID #: 1369**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**      **Alexander Bolonkin**

**Title:**      **Review 3 of new ideas, innovations of non-rocket propulsion systems for Space Launch and Flight (Part 3)**

**Abstract:** In the past years the author and other scientists have published a series of new methods which promise to revolutionize the space technology. These include the Space Elevator, Men without the space suite into space, Artificial gravity, New method of atmospheric re-entry for space ship, Inflatable Dome for Moon, Mars, asteroids, Closed loop water cycle, Climber for Space Elevator, Cheap Protection from Nuclear Warhead, Wireless transfer of electricity throw outer Space, Artificial explosion of Sun, etc.

Some of them have the potential to decrease the space research costs in thousands of time, other allow decreasing the cost of the space exploration.

The author reviews and summarizes some revolutionary ideas, innovations and patent applications for scientists, engineers, inventors, students and the public.

Key words: Space Elevator, Men without the space suite into space, Artificial gravity, New method of atmospheric re-entry, Inflatable Dome for space, Closed loop water cycle, Climber for Space Elevator, Cheap protection from Nuclear Warhead, Wireless transfer of electricity throw outer Space, Artificial explosion of Sun.

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**ID #: 1370**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**      **Alexander Bolonkin**

**Title:**      **AB-Needles: Fantastic Properties and Application in Energy**

**Abstract:** In my article a€?Femtotechnology: Nuclear AB-Matter with Fantastic Propertiesa€? [1] American Journal of Engineering and Applied Sciences. 2 (2), 2009, p.501-514 and (<http://www.scribd.com/doc/24045154>), the author offered, and considered, possible super strong nuclear matter. But, many readers asked, how about the proposed nuclear mattera€™s stability? As is well known, the conventional nuclear matter having more 92 protons or more 238 nucleons becomes instability. In given work, the author shows the special artificial forms of nuclear AB-matter to make its stability assured and give it near fantastic properties. For example, by the offered AB-Needle, any person can pierce any material body without any damage, could support a motionless satellite, reach the other planets, as well as directly investigate our Eartha€™s interior. These forms of nuclear matter are nonexistent in Nature, but nanotubes also are not in unmodified

Nature. That artificial matter is human-made. The AB-matter also is not now, but research and investigation into their possibility, stability and properties are necessary for creating them.  
Key words: Femtotechnology, FemtoTech, AB-matter, AB-needle, application AB-matter, stability AB-matter.

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**ID #: 1371**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Space Wing Electro Relativistic AB-Ship**

**Abstract:**        Author offers and develops the theory of a new class of space wing electro ship. A biplane wing and an electric field between the wings characterize this space ship. The interstellar and interplanetary mediums contain charged protons and other charged particles. The winged space ship can produce the lift, thrust and drag forces. The density of the space medium is small (100 - 105 charged particles/cm<sup>3</sup>) but the high ship speed allows creating enough force for maneuvers, turning, acceleration and braking of ship especially at near relativistic speeds. Author shows the ratio of lift force/drag of the space wing electro ship may reach 100 and maneuver of wing space is big advantageous compared to maneuver using conventional rocket methods. In addition the biplane wing easily may be converted into a very efficient engine (brake) using external space matter and achieve something close to simple photon propulsion. That means the proposed wing-brake-engine is the most efficient and technologically realistic space drive available at the present time. The offered wing design allows collecting of particles from a very large space area. The method also allows decreasing the drag of a ship body.

Key words: space wing electro apparatus, AB-space ship, flight into space medium, non-rocket space flight, ramjet space engine, electrocraft

**Web link:** [www.IntellectualArchive.com/getfile.php?file=QiS2VCf4Dog&orig\\_file=56874853-Space-Wing-Electro-Relativistic-AB-Ship.doc](http://www.IntellectualArchive.com/getfile.php?file=QiS2VCf4Dog&orig_file=56874853-Space-Wing-Electro-Relativistic-AB-Ship.doc)

**ID #: 1372**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Floating Cities**

**Abstract:**        Ocean colonization is the theory and practice of permanent human settlement of oceans. Such settlements may float on the surface of the water, or be secured to the ocean floor, or exist in an intermediate position. "Marine city" is defined at length at <http://parole.aporee.org> and the history of such facilities is briefly outlined in "Prototype cities in the sea" by Kaji-ohgrady and Raisbeck (2005). One primary advantage of ocean colonization is the expansion of livable area. In addition, it might offer various other possible benefits such as expanded resource access, novel forms of governance (for instance mini-nations), and new recreational activities for athletic humans.

Many lessons learned from ocean colonization will likely prove applicable to near-term future outer space and other-planet colonization efforts. The ocean may prove simpler to colonize than interplanetary space and thus occur first, providing a proving ground for the latter. In particular, the issue of legal sovereignty may bear many similarities between ocean and outer space colonization with space station settlements; adjustments to social life under harsher extra-terrestrial circumstances would apply similarly to the world-ocean and to outer space; and many technologies may have uses in both environments.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=9JXA5htLQQT&orig\\_file=Article Floating City without comments 7 7 09.doc](http://www.IntellectualArchive.com/getfile.php?file=9JXA5htLQQT&orig_file=Article%20Floating%20City%20without%20comments%207%2009.doc)

**ID #: 1373**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Production of Freshwater and Energy from Atmosphere**

**Abstract:**        The author offers a new, cheap method for the extraction of freshwater from the Earth's atmosphere. The suggested method is fundamentally distinct from all existing methods that extract freshwater from air. All other industrial methods extract water from a saline water source (in most

cases from seawater). This new method may be used at any point in the Earth except the Polar Zones. It does not require long-distance freshwater transportation. If seawater is not utilized for increasing its productivity, this inexpensive new method is very environmentally-friendly. The author's method has two working versions: (1) In the first variant warm (or hot) atmospheric air is lifted by the inflatable tube in a high altitude and atmospheric water vapor is condensed into freshwater: (2) in the second version, the warm air is pumped 20-30 meters under the sea-surface. In the first version, wind and solar heating of air are used for causing air flow. In version (2) wind and fans are used for causing air movement.

The first method does not need energy, the second needs a small amount. Moreover, in variant (1) the freshwater has a high pressure (>30 or more atm.) and can be used for production of energy such as electricity and in that way the freshwater cost is lower. For increasing the productivity the seawater is injected into air and a solar air heater may be used. The solar air heater produces a huge amount of electricity as a very powerful electrical generation plant. The offered electricity installation is 100 - 200 times cheaper than any common electric plant of equivalent output.

Key words: Extraction freshwater, method of getting freshwater, receiving energy from atmosphere, powerful renewal electric plant.

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**ID #: 1374**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**      **Alexander Bolonkin**

**Title:**        **Suppression of Forest Fire by Helicopter without Water**

**Abstract:**    The natural occurrences of wildfires damage nature areas, produce the hundreds of millions of dollars in losses, and considerable pollution of environment. The author suggests a very efficient method of suppression of a forest fire without water. He offers a system of simple light plates or anchor suspended from any helicopter which directs the helicopter propeller airflow against the direction of a wildfire. After some minutes the natural fuel burns away in the front of fire and the fire cannot advance.

The author developed theory and methods computations and suggests some designs of the devices for so changing the helicopter airflow direction.

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Key words: Wildfire, suppression of wildfire, suppression of forest fire by helicopter.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=FkM1e44oJBU&orig\\_file=Article Forest Fire after Joseph for JSF 10 06 09.doc](http://www.IntellectualArchive.com/getfile.php?file=FkM1e44oJBU&orig_file=Article%20Forest%20Fire%20after%20Joseph%20for%20JSF%2010%2006%2009.doc)

**ID #: 1375**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**      **Alexander Bolonkin**

**Title:**        **Kinetic Aviation and Space Catapult**

**Abstract:**    The current flight passenger-transport and cargo systems have reached the peak of their development. In the last 30 years there has been no increase in speed or reductions in trip costs. The transportation industry needs a revolutionary idea, which allows jumps in speed and delivery capability, and dramatic drops in trip price. The author offers a new idea in transportation in which trip (flight) time practically does not depend on distance, and vehicle load capability doubles and which has a driving engine that is located on the ground and can use any cheap source of energy. The author develops the theory and provides computations for a project containing five subprojects united by the common idea: acceleration the air vehicle on the ground and continuation of flight by inertia (high speed catapulting). The initial speed is 290 to 6000 m/s, the range is 50 to 10000 km (short, average, and long distances). Short transport system has a range on the order of 50-70 km, for example: city to sub-city, strait and air bridges such as across the Straits of Gibraltar 16 km, the English Channel 40 km, Bering Straits 100 km (Russia to America), Sakhalina to Asia 20 km, Russia to Japan, etc. The long distance has range up to 10000 km such as New York-Paris 5838 km, Washington-London 7373 km, San-Francisco to Tokyo 8277 km, San-Francisco to Vladivostok (Russia) 8377 km, New York to Moscow 7519 km, Moscow to Beijing 5800 km, Moscow to Tokyo 7487 km, New York to Berlin 6392 km, and so on.

The offered catapult system having a length of 400 km can be used as a space launch system which decreases the space launch cost by hundreds of times. This also may be used as a new conventional high speed (up to 1000 km/h) transport system between cities. That will be significantly cheaper than used MagLev (Magnetic Levitation) systems, because for levitation of the vehicle we

employ conventional wings. The offered system may be also used for the mass launch of bombs (projectiles) in war.

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Key word: air catapult transport, kinetic aviation, air kinetic transport, new passenger and cargo transport, catapult aviation, new space launch system, new suspending high speed ground system, cattran, skimplane.

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**ID #: 1376**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Long Distance Artillery**

**Abstract:**        Abstract. This picks up on the author's early work of increasing range of the shells and bullets 2 to 5 times by including in its design small wings. The shell/bullet specially formed wings support the projectile in the air, does not allow it to fall in earth's surface as the kinetic energy the projectile is not spent fighting the forces of gravity and air resistance. This is an important innovation as it can be used in conventional rifles and gun with rifled barrel and rotary shell/bullet. The second idea is radical change of trajectory. The projectile reaches high altitude and glides from height using wings with subsonic speed and a good ratio lift/drag. Author developed theory of these projectile and computed some projects which show high efficiency of these innovations. This can be immediately integrated into the arms industry and army because it does not require new weapons (rifles, guns), but is a modification only of the bullets and shells.

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Word keys: Wing projectile, wing shell, long distance shell, long distance bullet.

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**ID #: 1377**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin, Shmuel Neumann**

**Title:**            **NEW SELF-PROPELLED PENETRATION BOMB**

**Abstract:**        Authors offer the new anti-bunker bombs which reach 80-150 m and more of the Earth depth. They can destroy armor protected underground bunkers. This bomb is named as "Self-propelled Bomb" because after conventional kinetic penetration, multiple cumulative charges creates a narrow canal, then injects into this canal explosives which upon detonation pushes the bomb deeper into the Earth by special rocket explosions and reaches a deep location. The other feature of Burn Bomb is the use of liquid explosive which makes it more comfortable, easy for design, safety and operates more effective than current bunker buster bomb. The same method may be used for super-fast very deep oil/gas drilling because the liquid explosive may be delivered to same apparatus by a long tube line.

Key words: Penetration bomb, anti-bunker bomb, Earth depth bomb.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=LpTjOthNkVM&orig\\_file=99131896-NEW-SELF-PROPELLED-PENETRATION-BOMB.docx](http://www.IntellectualArchive.com/getfile.php?file=LpTjOthNkVM&orig_file=99131896-NEW-SELF-PROPELLED-PENETRATION-BOMB.docx)

**ID #: 1378**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Transportation of Asteroid to the Earth**

**Abstract:**        Author offers a new method for delivery of an asteroid to Earth which is many times cheaper than conventional methods. In this method, kinetic energy is used not only for the braking apparatus but is also used to charge the apparatus energy storage. A small control parachute using the Earth atmosphere for braking the asteroid without high heating, delivers the asteroid to a given point and avoids damaging impact to Earth. Though it is not large, a light parachute decreases asteroid speed from 11 km/s to 50 m/s and a heat flow by tens of times. The parachute surface is opened with backside so that it can emit the heat radiation efficiently to Earth-atmosphere. because the temperature of parachute may be about 1000-1300o C, it was only after industry produced high-temperature fiber and whiskers could that high temperature tolerant parachute for atmospheric

air braking are possible. For example, carbon fiber is able to keep its functionality up to a temperature of 1500-2000°C. There is no conceivable problem to manufacture the parachute from carbon fiber. The proposed new method of braking may be also applied to the old Space Ship as well as to newer spacecraft designs.

Key words: Asteroid delivery to Earth, Atmospheric reentry, Space Ships, thermal protection of asteroid and space apparatus, parachute braking.

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**ID #: 1380**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Cheap Protection of City and other place from Flood and Hurricane**

**Abstract:**       Textile storm surge barriers, sited at multiple locations, are literally extensions of the city's world famous urban fabric—another manifestation of the dominance of the man-made city over local Nature. Textile Storm Surge Barriers (TSSB) are intended to preserve the City from North Atlantic Ocean hurricanes that cause sea waves impacting the densely populated and high-value real estate, instigating catastrophic, and possibly long-term, infrastructure and monetary losses. Complicating TSSB installation macro-project planning is the presence of the Hudson and other rivers, several small tidal straits, future climate change and other factors. We conclude that TSSB installations made of homogeneous construction materials are worthwhile investigating because they may be less expensive to build, and more easily replaced following any failure, than concrete and steel storm surge barriers, which are also made of homogeneous materials. We suppose the best macro-project outcome will develop in the perfect Macro-engineering planning way and at the optimum time-of-need during the early-21st Century by, among other groups, the Port Authority of New York and New Jersey. TSSB technology is a practical advance over wartime harbor anti-submarine/anti-torpedo steel nets and rocky Churchill Barriers used in the UK.

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\*Presented in <http://arxiv.org> on 2007.

Key words: Protection of a city, area from flood.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=i8jjaPjJKme&orig\\_file=Article Protection of City from storm 11 23 12.doc](http://www.IntellectualArchive.com/getfile.php?file=i8jjaPjJKme&orig_file=Article%20Protection%20of%20City%20from%20storm%2011%2023%2012.doc)

**ID #: 1381**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **Protection of the Earth from Asteroids**

**Abstract:**       Authors developed theories of some methods the protection of the Earth from the big asteroids. These methods are: impact by space apparatus to asteroid, the braking/acceleration the asteroids by space apparatus, by explosion of a convention explosive (two methods), by explosion of a nuclear bomb. The offered methods allow to estimate a need amount the explosive for changing of an asteroid trajectory and to avoid the impact of the asteroid to the Earth. They allow to choose the cheap acceptable method and to estimate its cost. The offered methods may be used also for delivery asteroids to the Earth if they contain the valuable minerals.

Key words: Protection the Earth from asteroids, methods of protection from asteroids, theory of protection from asteroid, delivery asteroids to Earth.

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**ID #: 1382**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**            **REENTRY OF SPACE CRAFT TO EARTH**

**Abstract:**       Currently reentry of USA Space Shuttles and Command Module of Lunar Ships burns a great deal of fuel to reduce reentry speed because the temperatures are too high for atmospheric braking by conventional fiber parachutes. Recently high-temperature fiber and whiskers have been produced

which could be employed in a new control rectangle parachute to create the negative lift force required. Though it is not large, a light parachute decreases Shuttle speed from 8 km/s (Shuttle) and 11 km/s (Apollo Command Module) up to 1 km/s and Space Ship heat flow by 3-4 times (not over the given temperature). The parachute surface is opened with backside so that it can emit the heat radiation efficiently to Earth-atmosphere. The temperature of parachute is about 600-1500o C. The carbon fiber is able to keep its functionality up to a temperature of 1500-2000o C. There is no conceivable problem to manufacture the parachute from carbon fiber. The proposed new method of braking may be applied to the old Space Ship as well as to newer spacecraft designs.

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**Web link:** Keywords: Atmospheric reentry, Space Shuttle, thermal protection of space craft, parachute braking.  
[www.IntellectualArchive.com/getfile.php?file=DixvRsb8RIJ&orig\\_file=Article Reentry of Space Ship after Sbmuel 11 24 12.doc](http://www.IntellectualArchive.com/getfile.php?file=DixvRsb8RIJ&orig_file=Article Reentry of Space Ship after Sbmuel 11 24 12.doc)

**ID #: 1383**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**        **Alexander Bolonkin**

**Title:**           **Hypersonic Catapult Transportation**

**Abstract:**      At the present time, rocket launch systems, flight passenger-transport and ground passenger systems have reached their peak of development. In the last 30 years there has been no increase in speed or reductions in trip costs and space launch. The space launch and air and ground transportation industry needs revolutionary ideas, which allow a jump in speed and delivery capability, and a dramatic drop in space launch and trip price. This idea (kinetic aviation and space launch) was offered and developed in a series of the author researches, but an important facet of this method a€" the ground electric hypersonic engine - was insufficiently developed. Rail Gun idea was unfit for low acceleration and long rails. All energy is spent into creating a powerful magnetic field produces a strong flash when the apparatus is disconnected from rails. When the rail length is increased, the efficiency of low speed railgun engine approaches zero.

The main idea of the offered ground hypersonic electric engine is segmentation of the acceleration track on small special closed-loop sections (12.5 a€" 100 m) and a system of special switches which allow return of the magnetic energy to the system transferring it to apparatus movement. This increases the efficiency of hypersonic engine up 0.9, avoids the burning of rails and using the engine for long periods of time. The same idea may be used in a conventional Rail Gun.

Author designed and computed the feasibility and practability of this invention which he designed for the purpose of using it as a space launcher for astronauts and space load, as method for hypersonic long distance aviation and as method for supersonic passenger ground rail transportation. The offered system will be significantly cheaper than the currently used MagLev (Magnetic Levitation) systems, because the vehicle employs conventional wings for levitation and the hypersonic engine is very simple. The offered system may be also used for mass launch of projectiles in war.

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**Web link:**      Key word: hypersonic ground engine, space launcher, air catapult transport, kinetic aviation, air kinetic system, new high speed ground system.  
[www.IntellectualArchive.com/getfile.php?file=MK5W4D768o9&orig\\_file=Article Hypersonic Engine 12 30 12 \(3\) after Shmuel and Joseph 1 2 13.docx](http://www.IntellectualArchive.com/getfile.php?file=MK5W4D768o9&orig_file=Article Hypersonic Engine 12 30 12 (3) after Shmuel and Joseph 1 2 13.docx)

**ID #: 1385**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**

**Title:**           **Underground Explosion Nuclear Energy**

**Abstract:**      Author offers the new method for obtaining very cheap electric energy, liquid fuel, thermal energy, fresh water and cheap nuclear fuel. He uses deuterium underground thermonuclear explosions. He shows the installation for getting of energy (creating the underground cavity by nuclear explosive) is on the order of a thousand times cheaper than surface steel boiler designs offered by Russian scientists and more safe because in case of any damage the radiation is in the deep underground cavity. The offered system will also produce a lot of fresh water for arid regions. Author developed the theory of underground explosions, artificial earthquake, computed projects and investigates the problems of nuclear security.

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**Web link:**      Key words: Energy, cheap energy, peaceful nuclear explosive, warm energy, fresh water, liquid fuel, cheap nuclear fuel, theory of underground explosion, artificial earthquake.  
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**ID #: 1386**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 04, 2014

**Author:**

**Title:**      **Air Hypersonic Electronically Propulsion**

**Abstract:** Aviation, in general, and aerospace in particular needs new propulsion systems which allow the craft to reach high speeds by cheaper and more efficient methods. Author offers a new propulsion system using electrons for acceleration of the craft and having a high efficiency. As this system does not heat the air, it does not have the heating limitations of conventional air ramjet hypersonic engines. Offered engine can produce a thrust from a zero flight speed up to the desired space apparatus speed. It can work in any planet atmosphere (gas, liquid) and at very high altitude. The system can use apparatus surface for thrust and braking. For energy the system uses high voltage electricity which is not a problem if you have an appropriate electrostatic generator connected with any suitable engine.

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Key words: Electron propulsion, EABP, hypersonic propulsion, space propulsion.

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**ID #: 1389**      **Natural Sciences / Mathematics / Differential equations**

**Submitted on:** Oct 04, 2014

**Author:**      **Yilun Shang**

**Title:**      **Second order moment approximations for asymptotically density dependent Markov chains**

**Abstract:** We consider differential equation approximations for continuous time Markov chains with asymptotically density dependent transition rates. Based on some operator semigroup techniques, we show that the second order moment of the Markov process can be approximated uniformly by the solution of an appropriately chosen mean-field equation. The convergence rate is shown to be given by  $O(n^{-1})$  with  $n$  being the size of the state space.

**Web link:**      ***www.IntellectualArchive.com/getfile.php?file=LpPGwCgffBc&orig\_file=second order moment approximations for asymptotically density dependent Markov chains.pdf***

**ID #: 1390**      **Literature / Internet articles / Analysis of literature**

**Submitted on:** Oct 06, 2014

**Author:**      **Yu.N. Klimov**

**Title:**      **Quantitative lexicology Russian and English of texts of the novels V.V. Nabokov "Lolita"**

**Abstract:** Research 29 quantitative characteristics Russian and English of texts of the novel of V.V. Nabokov "Lolita" is lead. The Russian text of the novel is described by 20 characteristics (68, 96%), and the English text - 19 characteristics (31,04%). Reduction in shares of word of types (WT) and word of tokens (WTK) for Russian translation and the English text of the novel as non-uniform waves of change of these sizes from their rate is shown. Change of shares of cumulative WT and WTK for Russian translation and the English text of the novel in percentage of their rate, since the least size is marked. Results of modeling of dependence CFW and CLW from their sequence are resulted, since the greatest size of Russian and English of texts, natural logarithms of cumulative WT and WTK from frequency of 1-25 Russian and English of texts, natural logarithms of cumulative WT and WTK from frequency 25 Russian and is higher than English of texts, natural logarithms of cumulative WT and WTK from frequency 25 Russian and is higher than English of texts, cumulative WTK from frequency of 1-25 Russian and English of texts (in %) and WT (in %). It is shown, that relative speed (size  $b$  in the sedate equation) the investigated characteristics considerably exceeds relative exponential speed (size  $b$  in exponential the equation).

Key words: V.V. Nabokov "Lolita": general length of a word, number of word forms, number of word usages, the relation of number of word forms to number of word usages, natural logarithms of number of word forms and word usages, indexes: HerdanI,,s, ??D, exclusiveness, a constancy, a point computer lexical crossingover, approximate riches of the dictionary, the specified riches of the dictionary, hapax legomena, hapax dislegomena, hapax trislegomena, a share hapax legomena in the dictionary, a share hapax dislegomena in the dictionary, a share hapax trislegomena in the

dictionary, a share hapax legomena in the text, a share hapax dislegomena in the text, a share hapax trislegomena in the text, the sum hapax legomena, hapax dislegomena, the sum hapax legomena, hapax dislegomena, hapax trislegomena, a share of the sum hapax legomena and hapax dislegomena in the dictionary, a share of the sum hapax legomena, hapax dislegomena, hapax trislegomena in the dictionary, a share of the sum hapax legomena and hapax dislegomena in the text, a share of the sum hapax legomena, hapax dislegomena, hapax trislegomena in the text and the relation of number of word usages to number of the word forms

**Web link:** [www.IntellectualArchive.com/getfile.php?file=cNEXtU5ewjl&orig\\_file=Quantitative lexicology Russian and English of texts of the novels LOLITA\\_IA\\_2014.docx](http://www.IntellectualArchive.com/getfile.php?file=cNEXtU5ewjl&orig_file=Quantitative%20lexicology%20Russian%20and%20English%20of%20texts%20of%20the%20novels%20LOLITA_IA_2014.docx)

**ID #: 1391**      **Natural Sciences / Physics / Quantum field theory**

**Submitted on:** Oct 14, 2014

**Author:**      **Ervin Goldfain**

**Title:**      **Ultraviolet Completion of Electroweak Theory on Minimal Fractal Manifolds**

**Abstract:**      The experimental discovery of the Higgs boson at the Large Hadron Collider (LHC) has effectively disqualified all Higgs-less models developed prior to July 2012. Today, despite its conclusive validation, the Higgs sector of the Standard Model (SM) remains a largely uncharted territory. This raises the following question: Are there any hidden insights brought up by Higgs-less models that can still be beneficial for the on-going research in particle physics? Pursuing this thought, we re-examine here Moffata's scenario based on a finite electroweak Lagrangian built outside the Higgs paradigm. Unlike the original proposal, we place the model on a spacetime support equipped with minimal fractality. In doing so, we find that the theory is perturbatively well-behaved at large scattering cross-sections and that it gracefully connects with the conventional formulation of the SM in the limit of vanishing fractality.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=KaNP0T6bFxs&orig\\_file=Ultraviolet Completion of Electroweak Theory on Minimal Fractal Manifolds.pdf](http://www.IntellectualArchive.com/getfile.php?file=KaNP0T6bFxs&orig_file=Ultraviolet%20Completion%20of%20Electroweak%20Theory%20on%20Minimal%20Fractal%20Manifolds.pdf)

**ID #: 1392**      **Natural Sciences / Physics / General Physics**

**Submitted on:** Oct 15, 2014

**Author:**      **Alexander Bolonkin**

**Title:**      **List 5 of Bolonkin publications**

**Abstract:**      List 5 of Bolonkin publications (Aerospace, aviation, University)

**Web link:** [www.IntellectualArchive.com/getfile.php?file=5LI7lqeoZBN&orig\\_file=List 5 of Bolonkin publication 9 29 14.doc](http://www.IntellectualArchive.com/getfile.php?file=5LI7lqeoZBN&orig_file=List%205%20of%20Bolonkin%20publication%209%2029%2014.doc)

**ID #: 1394**      **Social Sciences / Psychology / Developmental psychology**

**Submitted on:** Oct 19, 2014

**Author:**      **Yuriy Sydoryk & Nadiia Kogutiak**

**Title:**      **Social network of the Ukrainian teenagers whose parents are long time abroad**

**Abstract:**      Background. Long-term absence of parents which is accompanied by their exception from the system of a child's attachment and his/her enhanced orientation on the agemates.  
Methods. 39 teenagers, whose parents constantly lived together with family, (Average age = 13,15A±0,93) and 30 teenagers in the families of which at least one of the parents works abroad for a long period (three and more years), and that is why lives long time far from family participated in the research.  
Results. It was found that there are no differences in interpersonal distances in the groups of teenagers, whose parents live together with family and respondents, whose parents long time live and work abroad; statistically dependent differences between the number of persons like "brother" (N€ = 0,015) and "friend" (N€ = 0,018) were determined.  
Conclusions. It can be assumed that teenagers' parents that live together with family do not spare the proper attention to the quality of parents-child interaction (at least in rural districts); co-operating with the agemates contains more features, which, however, cannot be described by the methods used in research. This pilotage research was performed on the statistically unreliable study samples. Therefore, the obtained results can only be used for planning and further researches.

**Web link:** [semi-private registration](#)

**ID #: 1395**      **Natural Sciences / Physics / Quantum field theory**

**Submitted on:** Oct 21, 2014

**Author:**      **Ervin Goldfain**

**Title:**      **The Seesaw Mechanism and the Structure of Spacetime above the Electroweak Scale**

**Abstract:**      According to the seesaw mechanism, neutrino masses arise from the existence of heavy Majorana neutrinos postulated to emerge near the grand unification scale (GUT) of about  $10^{16}$  GeV. Despite its theoretical appeal, this scenario involves either physics at inaccessible scales or tuning the Yukawa couplings to un-naturally low values. Our work sidesteps the seesaw mechanism and shows that neutrino masses follow from placing the Standard Model on a spacetime support equipped with arbitrarily small deviations from four dimensions.

**Web link:**      **[www.IntellectualArchive.com/getfile.php?file=5McLNtENbsY&orig\\_file=The Seesaw Mechanism and the Structure of Spacetime above the Electroweak Scale.pdf](http://www.IntellectualArchive.com/getfile.php?file=5McLNtENbsY&orig_file=The Seesaw Mechanism and the Structure of Spacetime above the Electroweak Scale.pdf)**

**ID #: 1397**      **Social Sciences / Economics / Macroeconomics**

**Submitted on:** Oct 28, 2014

**Author:**      **Vugalter**

**Title:**      **The Phenomenon of Inflation as a Result of Economic Controversy (Cognitive Canonical Models)**

**Abstract:**      The article describes the inflationary process in the two self-contradictory sections: as a consequence of the uneven development of economic sectors, and in relation to comparable countries with different amounts of gross product. The proposed cognitive canonical model of economic relations as a closed system, possible to prove the theorem at that: 1) there is a form of inflation, which follows directly from the fact of uneven development of industries and to a fair distribution of goods between producers and 2) an increased rate of inflation in the country lagging behind in comparison with the best results from the differences between the levels of unit of GDP in these countries, with the assumption of equal velocities (the first derivatives with respect to time) of their growth both in real and nominal terms.

The results of the study - a way of certain economic relations, fully manifest themselves only in the framework of our model, and partly - in the real world, it is the extent to which it reflects the model.

Keywords: money, inflation, the methodology of economics, uneven economic development, cognitive model, the canonical model, closed system, open system, equitable distribution, the theory of money, the theory of value, money issue, the growth speed, the pace of growth.

JEL: E31

**Web link:**      **[www.IntellectualArchive.com/getfile.php?file=OXofus9g843&orig\\_file=english2.pdf](http://www.IntellectualArchive.com/getfile.php?file=OXofus9g843&orig_file=english2.pdf)**

**ID #: 1399**      **Literature / Internet articles / Analysis of literature**

**Submitted on:** Nov 01, 2014

**Author:**      **Yu.N. Klimov**

**Title:**      **Comparative quantitative lexicology the Icelandic epos "GA-sla Saga SA?rssonar" in Russian and Icelandic languages**

**Abstract:**      : Results computer quantitative lexicological the analysis of the Icelandic epos "GA-sla Saga SA?rssonar" fewer than 31 characteristic are submitted. Modeling Russian and Icelandic texts on linear, exponential, to the sedate equations and polynoms of the second and third degrees is lead. Similarity and distinction of the investigated texts is shown. Russian translation exceeds the text of the original.

Key words: The Icelandic epos, the saga about GA-sla, GA-sla Saga SA?rssonar, translation into Russian, general length of a word, number of word forms, number of word usages, the relation of number of word forms to number of word usages, natural logarithms of number of word forms and word usages, index HerdanI,,s, index ??D, exclusiveness, a constancy, a point computer lexical crossingover, approximate riches of the dictionary, the specified riches of the dictionary, hapax legomena, hapax dislegomena, hapax trislegomena, a share hapax legomena in the dictionary, a share hapax dislegomena in the dictionary, a share hapax trislegomena in the dictionary, a share hapax legomena in the text, a share hapax dislegomena in the text, a share hapax trislegomena in the text, the sum hapax legomena, hapax dislegomena, the sum hapax legomena, hapax

dislegomena, hapax trislegomena, a share of the sum hapax legomena and hapax dislegomena in the dictionary, a share of the sum hapax legomena, hapax dislegomena, hapax trislegomena in the dictionary, Share of the sum hapax legomena and hapax dislegomena in the text, a share of the sum hapax legomena, hapax dislegomena, hapax trislegomena in the text and the relation of number of word usages to number of word forms, similarity and distinction, the original, translation.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=OFe34aewSSX&orig\\_file=Comparative quantitative lexicology the Icelandic epos GSS\\_IA\\_2014.docx](http://www.IntellectualArchive.com/getfile.php?file=OFe34aewSSX&orig_file=Comparative%20quantitative%20lexicology%20the%20Icelandic%20epos%20GSS_IA_2014.docx)

**ID #: 1403** Social Sciences / Communication / Linguistics

**Submitted on:** Nov 12, 2014

**Author:** Kassymbekova A.T., Sultanbekova S.S

**Title:** The role of epithets in English and Kazakh languages

**Abstract:** Students at Abai Kazakh National Pedagogical university who study on the specialty of two foreign languages are asked at the state examination to find stylistic devices on theoretical subject as lexicology. And this article helps them to analyze and compare epithets in their native and foreign languages.

One of the main trop which is coincide more often with definition-function of an adjective, genetic attributive which became a subject is epithet.

The epithet is a stylistic device based on the interplay of emotive and logical meaning, phrase or even sentence used to characterize an object and pointing out to the reader, and frequently imposing on him, some of the properties or features of the object with the aim of giving an individual perception and evaluation of these features or properties. The epithet is markedly subjective and evaluative. The logical attribute is purely objective, non-evaluating. It is descriptive and indicates an inherent or prominent feature of the thing or phenomenon in question.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=CeAWjnwnM4E&orig\\_file=article epithet.doc](http://www.IntellectualArchive.com/getfile.php?file=CeAWjnwnM4E&orig_file=article%20epithet.doc)

**ID #: 1408** Social Sciences / Education / Pedagogy

**Submitted on:** Nov 17, 2014

**Author:** Golovnya Nadiya

**Title:** CRITERIA, INDICATORS AND LEVELS OF PROFESSIONAL MOBILITY OF FUTURE TEACHERS

**Abstract:** The article is devoted to defining the criteria and levels of professional mobility of future teachers, as well as to establishing their parameters in order to achieve good results of the research issue.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=PmMCaGbbahO&orig\\_file=Golovnya N.docx](http://www.IntellectualArchive.com/getfile.php?file=PmMCaGbbahO&orig_file=Golovnya%20N.docx)

**ID #: 1409** Social Sciences / Education / Pedagogy

**Submitted on:** Nov 17, 2014

**Author:** Golovnya Nadiya

**Title:** CRITERIA, INDICATORS AND LEVELS OF PROFESSIONAL MOBILITY OF FUTURE TEACHERS

**Abstract:** The article is devoted to defining the criteria and levels of professional mobility of future teachers, as well as to establishing their parameters in order to achieve good results of the research issue.

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**ID #: 1411** Natural Sciences / Physics / Quantum field theory

**Submitted on:** Nov 17, 2014

**Author:** Ervin Goldfain

**Title:** Solving the Naturalness Problem on Minimal Fractal Manifolds

**Abstract:** The "naturalness" problem stands out as one of the deepest mysteries of Quantum Field Theory (QFT) and General Relativity (GR). A vast array of proposals on how to tackle this challenge has been advanced over the years with no compelling experimental backup and no major breakthrough. In this brief report we re-emphasize that the onset of the minimal fractal manifold near

- or above the electroweak scale enables a straightforward resolution of this problem.
- Web link:** [www.IntellectualArchive.com/getfile.php?file=sYwpsPrZcKx&orig\\_file=Solving the Naturalness Problem on Minimal Fractal Manifolds.pdf](http://www.IntellectualArchive.com/getfile.php?file=sYwpsPrZcKx&orig_file=Solving the Naturalness Problem on Minimal Fractal Manifolds.pdf)
- ID #: 1413**      **Natural Sciences / Other / economy**  
**Submitted on:** Nov 18, 2014  
**Author:**        **Pidgirna V.S**  
**Title:**            **Ways to increase profit entities in an open economy Ukraine**  
**Abstract:**        This article explores the issue of profit entities Ukraine for the period 2009-2013. The factors that affect the formation of profit entities. The measures, to entities Ukraine stable performance and profit.  
**Web link:**        [www.IntellectualArchive.com/getfile.php?file=QDZaKji8ifU&orig\\_file=article.doc](http://www.IntellectualArchive.com/getfile.php?file=QDZaKji8ifU&orig_file=article.doc)
- ID #: 1414**      **Natural Sciences / Other / economy**  
**Submitted on:** Nov 18, 2014  
**Author:**        **Pidgirna Vera**  
**Title:**            **Ways to increase profits subjects of management in an open economy Ukraine**  
**Abstract:**        The article explores the issue of earnings management subjects Ukraine for the period 2009-2013. The factors that affect their bottom line management subjects. The measures, in order to management subjects Ukraine, stable performance and profit.  
**Web link:**        [www.IntellectualArchive.com/getfile.php?file=YgXgpteOlet&orig\\_file=article.doc](http://www.IntellectualArchive.com/getfile.php?file=YgXgpteOlet&orig_file=article.doc)
- ID #: 1415**      **Natural Sciences / Physics / General Physics**  
**Submitted on:** Nov 18, 2014  
**Author:**        **Alejandro A. Torassa**  
**Title:**            **Alternative Classical Mechanics II**  
**Abstract:**        This paper presents an alternative classical mechanics which is invariant under transformations between reference frames and which can be applied in any reference frame without the necessity of introducing fictitious forces.  
**Web link:**        [www.IntellectualArchive.com/getfile.php?file=qu7UhaZM25E&orig\\_file=Alternative2.pdf](http://www.IntellectualArchive.com/getfile.php?file=qu7UhaZM25E&orig_file=Alternative2.pdf)
- ID #: 1416**      **Philosophy / Metaphysics / Philosophy of psychology**  
**Submitted on:** Nov 19, 2014  
**Author:**        **Nezhyva O.**  
**Title:**            **HIGHER EDUCATION SYSTEM IN MODERN GERMANY: SOCIAL-PHILOSOPHICAL ANALYSIS**  
**Abstract:**        In this article the author investigates higher education system in modern Germany and shows major factors which had weighty value with assistance to development of democratic education and ways of its perfection. The author analyzes features of modern higher education in Germany and explains solving problems of higher education system in Ukraine.  
**Web link:**        [www.IntellectualArchive.com/getfile.php?file=qJO7WhCQuwg&orig\\_file=Olga Nezhyva.doc](http://www.IntellectualArchive.com/getfile.php?file=qJO7WhCQuwg&orig_file=Olga Nezhyva.doc)
- ID #: 1417**      **Natural Sciences / Computer Science / Mathematical logic**  
**Submitted on:** Nov 19, 2014  
**Author:**        **Taras V. Panchenko**  
**Title:**            **SIMPLIFIED METHOD FOR SOFTWARE CORRECTNESS PROOF IN IPCL**  
**Abstract:**        This paper concerns the software correctness problem and program properties proof a€“ especially for concurrent programs. Interleaving Parallel Composition Language (IPCL) [1] and program properties proof in IPCL are the subjects of this article. The paper shines light on Simplified State and the appropriate Method for software properties proof (including correctness) in IPCL, and also

shows its applications and advantages.  
**Web link:** [www.IntellectualArchive.com/getfile.php?file=0LR3XRYg20M&orig\\_file=article1\\_IPCL\\_model\\_of\\_simplified\\_state.doc](http://www.IntellectualArchive.com/getfile.php?file=0LR3XRYg20M&orig_file=article1_IPCL_model_of_simplified_state.doc)

**ID #: 1418**      **Social Sciences / Law / Insurance Law of Kazakhstan in the field of health**

**Submitted on:** Nov 19, 2014

**Author:**      **A.E.Zhatkanbayeva, A.T.Salykhbaeva**

**Title:**        **Insurance Law of Kazakhstan in the field of health**

**Abstract:**    This article discusses the choice of Kazakhstan insurance system in the health sector. The analysis of the problems of the formation of a stable system of insurance in the market of medical services. The experience of countries with highly developed health care system and the ways to overcome the problems in the Republic of Kazakhstan. The article uses a comparative legal, historical and legal analysis of the development of public health. As a result, the conclusions about the need to introduce into the national health system of market regulation mechanisms and the formation of a more adapted to the modern realities of management. The findings can be used to develop new ways to improve the country's health system.

Keywords: health insurance system, the health system, compulsory and voluntary insurance.  
**Web link:** [www.IntellectualArchive.com/getfile.php?file=5MYN9dsSRDV&orig\\_file=?-?°N,???°???±?°μ?°?°,???°»N«N...?±?°μ???°.InsuranceLawofKazakhstaninthefieldofhealth.docx](http://www.IntellectualArchive.com/getfile.php?file=5MYN9dsSRDV&orig_file=?-?°N,???°???±?°μ?°?°,???°»N«N...?±?°μ???°.InsuranceLawofKazakhstaninthefieldofhealth.docx)

**ID #: 1419**      **Natural Sciences / Astronomy / Astrophysics**

**Submitted on:** Nov 20, 2014

**Author:**      **Nikitin Aleksandr**

**Title:**        **Supernova SN1987A**

**Abstract:**    Supernova SN1987A:  
Direct measurement of the speed of light?

Nikitin Aleksandr

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Abstract

Frenson James (James Franson) from the University of Maryland in the journal New Journal of Physics published a paper [1], in which, referring to the observations of supernova SN1987A, believes that the photons can be slowed down due to the effect of vacuum polarization. Respecting James Franson challenging assumptions about slowing the speed of light, allow to draw attention to the following explanation of the problem, which follows from the theory developed by us energy.

We believe that in 7h 35m (23.316 UT) at check-in first and then the neutrino burst optical observation Supernova 1987A in 10h 24m [23.433UT], there was a direct measurement of the actual speed of light.

In the paradigm of energy theory [10, 11, 12, 13, 14], where all changes and interaction in space defined by the change in the energy characteristics of the cosmos, in the article the following variant: neutrinos and photons "flew" from the exploding star at the same time at the same rate, but arrived on Earth at different times of the neutrino in the early 11160s photons due to changes in the gravitational potential energy and the cosmos in time.

Also, the result of the OPERA experiment in the difference of 60 ns between the time of arrival of neutrinos and photons, we have to admit quite possible.

Possible cosmological observation and the next experiment: after a registered neutrino burst in about the time  $[(4\epsilon/3-1) H_0]^{1/2} T/C^2$  seconds (+ Accounting energy and gravitational potentials of galaxies) must occur optical photons supernova explosion that will serve as a confirmation of the theory of energy.

Keywords: Supernova 1987A, light, neutrino, photon, energy-gravity potential.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=ONwT1jtkbHj&orig\\_file=engSN1987A.pdf](http://www.IntellectualArchive.com/getfile.php?file=ONwT1jtkbHj&orig_file=engSN1987A.pdf)

**ID #: 1420**      **Natural Sciences / Astronomy / Astrophysics**

**Submitted on:** Nov 23, 2014

**Author:** Nikitin Aleksandr

**Title:** Supernova SN1987A: Direct measurement of the speed of light?

**Abstract:** Abstract

Frenson James (James Franson) from the University of Maryland in the journal New Journal of Physics published a paper [1], in which, referring to the observations of supernova SN1987A, believes that the photons can be slowed down due to the effect of vacuum polarization. Respecting James Franson challenging assumptions about slowing the speed of light, allow to draw attention to the following explanation of the problem, which follows from the theory developed by us energy. We believe that in 7h 35m (23.316 UT) at check-in first and then the neutrino burst optical observation Supernova 1987A in 10h 24m [23.433UT], there was a direct measurement of the actual speed of light. In the paradigm of energy theory [10, 11, 12, 13, 14], where all changes and interaction in space defined by the change in the energy characteristics of the cosmos, in the article the following variant: neutrinos and photons "flew" from the exploding star at the same time at the same rate, but arrived on Earth at different times of the neutrino in the early 11160s photons due to changes in the gravitational potential energy and the cosmos in time. Also, the result of the OPERA experiment in the difference of 60 ns between the time of arrival of neutrinos and photons, we have to admit quite possible. Possible cosmological observation and the next experiment: after a registered neutrino burst in about the time  $[(4\pi/3-1) H_0]^{1/2} T/C^2$  seconds (+ Accounting energy and gravitational potentials of galaxies) must occur optical photons supernova explosion that will serve as a confirmation of the theory of energy.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=fNR9GPTKqYE&orig\\_file=engSN1987A.pdf](http://www.IntellectualArchive.com/getfile.php?file=fNR9GPTKqYE&orig_file=engSN1987A.pdf)

**ID #: 1421** Social Sciences / Education / Technology

**Submitted on:** Nov 24, 2014

**Author:** Zainetdinova L.F., Krul A.S.

**Title:** Business game as an interactive method of teaching: experience of carrying out.

**Abstract:** Main part the present article devoted substantiation of necessity the use of business games as interactive methods of teaching social sciences. Business game is both a pedagogical tool and active forms of learning, which forms educational activities and work out professional skills. The main technological stages of business games are considered learning environment, which can only be created with the help of business games of various kinds. As an example, shows the experience of "political debate" for students in Economics, Agroengineering. Proved that the "political debate" form the necessary competence of future specialists, as well as create pedagogical conditions that enable to achieve objectives.

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**ID #: 1422** Social Sciences / Sociology / Sociology of deviance

**Submitted on:** Nov 24, 2014

**Author:** KATKOV IVAN MICHAILOVICH

**Title:** Spiritual concepts in research of corruption subcultures (sociocultural approach)

**Abstract:** In the article is disclosed the actual problem of scientific knowledge of the phenomenon of corruption. The goal of obtaining a new scientific knowledge in the field of socio-cultural knowledge of the phenomenon of corruption. One of the elements of corruption as a kind of culture is the corrupt subculture. Subculture author regards as a significant element of society's culture, one of the indicators of its status and development, and corrupt subculture as an element of culture of corruption. Scientific contribution of the author is expressed: 1) to develop models for the formation of subcultures of corruption, allocation of its properties and functions; 2) the development of a scientific approach to addressing corruption as a social and cultural phenomenon; 3) the author's approach to knowledge can be the basis for the development of new tools and methods to counter corruption.

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**ID #: 1424**      **Natural Sciences / Physics / Particle physics**  
**Submitted on:** Nov 26, 2014  
**Author:**      **Ervin Goldfain**  
**Title:**        **On the Limitations of Wilson`s Renormalization Group Program**  
**Abstract:**     This informal report surveys several lesser-known limitations of Wilsona€™s Renormalization Group program. The account is not intended to be either rigorous or complete as our sole purpose is to stimulate further discussions and research.  
**Web link:**     [www.IntellectualArchive.com/getfile.php?file=3ipHD4Kltu9&orig\\_file=On the Limitations of Wilson's Renormalization Group Program.pdf](http://www.IntellectualArchive.com/getfile.php?file=3ipHD4Kltu9&orig_file=On the Limitations of Wilson's Renormalization Group Program.pdf)

**ID #: 1425**      **Natural Sciences / Physics / General Physics**  
**Submitted on:** Nov 27, 2014  
**Author:**      **Alejandro A. Torassa**  
**Title:**        **Alternative Classical Mechanics III**  
**Abstract:**     This paper presents an alternative classical mechanics which establishes the existence of a new universal force of interaction (called kinetic force) and which can be applied in any reference frame without the necessity of introducing fictitious forces.  
**Web link:**     [www.IntellectualArchive.com/getfile.php?file=xBh7fjS6ijH&orig\\_file=paper47.pdf](http://www.IntellectualArchive.com/getfile.php?file=xBh7fjS6ijH&orig_file=paper47.pdf)

**ID #: 1426**      **Natural Sciences / Physics / Mechanics**  
**Submitted on:** Nov 30, 2014  
**Author:**      **Alejandro A. Torassa**  
**Title:**        **Alternative Classical Mechanics 4**  
**Abstract:**     This paper presents an alternative classical mechanics which is invariant under transformations between reference frames and which can be applied in any reference frame without the necessity of introducing fictitious forces.  
**Web link:**     [www.IntellectualArchive.com/getfile.php?file=jJEvFifl6B5&orig\\_file=inertial.pdf](http://www.IntellectualArchive.com/getfile.php?file=jJEvFifl6B5&orig_file=inertial.pdf)

**ID #: 1427**      **Natural Sciences / Physics / General Physics**  
**Submitted on:** Dec 09, 2014  
**Author:**      **Alejandro A. Torassa**  
**Title:**        **Alternative Classical Mechanics IV**  
**Abstract:**     This paper presents an alternative classical mechanics which is invariant under transformations between reference frames and which can be applied in any reference frame without the necessity of introducing fictitious forces. Additionally, a new principle of conservation of energy is also presented.  
**Web link:**     [www.IntellectualArchive.com/getfile.php?file=6cvOifdN1C4&orig\\_file=paper48.pdf](http://www.IntellectualArchive.com/getfile.php?file=6cvOifdN1C4&orig_file=paper48.pdf)

**ID #: 1429**      **Literature / Internet articles / Analysis of literature**  
**Submitted on:** Dec 14, 2014  
**Author:**      **Yu.N. Klimov**  
**Title:**        **Quantitative research of graphemes in Russian poetic and prosaic texts on the basis of the simple algebraic equations and their modeling**  
**Abstract:**     It is lead quantitative research of graphemes in poetic and prosaic texts on the basis of the simple algebraic equations and their modeling. The hypothesis that cumulative graphemes possess properties of an information stream is confirmed. The following Russian poetic products are investigated: "Eugeny Onegin" A.S. Pushkin, "Kalevala" Belsky`s translation, Psalter in Russian and Church Slavonic language on the following quantitative to characteristics: frequency of graphemes, cumulative frequency of graphemes, their natural logarithm, a share of number of graphemes and their percent.

Keywords: quantitative lexicology, graphemes, Russian, poetry, prose, Eugeny Onegin, A.S. Pushkin, "Kalevala", L.P. Belsky's translation, Psalter, Church Slavonic language, frequency of graphemes, cumulative frequency of graphemes, the natural logarithm, a share of number of graphemes, dynamics of graphemes, cumulate graphemes, average frequency of graphemes, linear model, sedate model, logarithmic model, cumulate model, a polynom of the second degree, a polynom of the third degree, the algebraic equations, relative speed, relative exponential speed, unity of graphemes and words, the formula of graphemes, non-uniform distribution of graphemes on three zones, distribution Bradford, relationship of properties of graphemes and information streams, correlation of graphemes.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=50i2p4SBlel&orig\\_file=Quantitative\\_research\\_of\\_graphemes\\_in\\_Russian\\_poetic\\_and\\_prosaic\\_texts\\_on\\_the\\_basis\\_of\\_the\\_simple\\_algebraic\\_equations\\_and\\_their\\_modeling\\_IA\\_.docx](http://www.IntellectualArchive.com/getfile.php?file=50i2p4SBlel&orig_file=Quantitative_research_of_graphemes_in_Russian_poetic_and_prosaic_texts_on_the_basis_of_the_simple_algebraic_equations_and_their_modeling_IA_.docx)

**ID #: 1430** Natural Sciences / Other / Agriculture

**Submitted on:** Dec 18, 2014

**Author:** Zakhirova S., Yuldashev G.

**Title:** «?»N?????µ ???µN...?°????N‡?µN????????? ?±?°NEN??µN€?° ???° N??????N?N,???° ???µN????????? ?? N...?»????N‡?°N,????????° (Influence of a mechanical barrier on properties of sand and cotton)

**Abstract:** The studies found that the creation of an artificial barrier on the sands at a depth of 40 cm of silt normally 400-1000 t/ha increase cotton yields relative, control ranging from 1,4 t/ha to 9,1 t/ha.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=ZAA4ubUNIlh&orig\\_file=Zokirova\\_UZB.doc](http://www.IntellectualArchive.com/getfile.php?file=ZAA4ubUNIlh&orig_file=Zokirova_UZB.doc)

**ID #: 1433** Natural Sciences / Physics / Particle physics

**Submitted on:** Dec 22, 2014

**Author:** Ervin Goldfain

**Title:** Minimal Fractal Manifold as Asymptotic Regime of Non-Commutative Field Theory

**Abstract:** The minimal fractal manifold (MFM) defines a space-time continuum endowed with arbitrarily small deviations from four-dimensions. It was recently shown that MFM is a natural consequence of the Renormalization Group and that it brings up a series of unforeseen solutions to the challenges raised by the Standard Model. In this brief report we argue that MFM may be treated as asymptotic manifestation of Non-Commutative (NC) Field Theory near the electroweak scale. Our provisional findings may be further expanded to bridge the gap between MFM and NC Field Theory.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=TTkjhCAJpqn&orig\\_file=Minimal\\_Fractal\\_Manifold\\_as\\_Asymptotic\\_Regime\\_of\\_Non-Commutative\\_Field\\_Theory.pdf](http://www.IntellectualArchive.com/getfile.php?file=TTkjhCAJpqn&orig_file=Minimal_Fractal_Manifold_as_Asymptotic_Regime_of_Non-Commutative_Field_Theory.pdf)

**ID #: 1435** Natural Sciences / Physics / General Physics

**Submitted on:** Dec 29, 2014

**Author:** Alejandro A. Torassa

**Title:** Alternative Classical Mechanics 4c

**Abstract:** This paper presents an alternative classical mechanics which is invariant under transformations between reference frames and which can be applied in any reference frame without the necessity of introducing fictitious forces. Additionally, a new principle of conservation of energy is also presented.

**Web link:** [www.IntellectualArchive.com/getfile.php?file=b3ii9eOXD2e&orig\\_file=free-system.pdf](http://www.IntellectualArchive.com/getfile.php?file=b3ii9eOXD2e&orig_file=free-system.pdf)

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