BAUMAN MOSCOW STATE TECHNICAL UNIVERSITY

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Programme of International Meeting
Physical Interpretations of Relativity Theory

Monday 6 July – Thursday 9 July 2009

Department of Physics, BMSTU, Moscow
International Research Institute of Hypercomplex Systems in Geometry and Physics
Department of Physics, University of Liverpool, Great Britain
S.C.&T., University of Sunderland, Great Britain
Russian Gravitational Society
Moscow Physical Society

Monday 6th July 2009. Conference Hall. Study Laboratory Building BMSTU

9.00-9.30h Registration of delegates
9.30-10.00h Opening the PIRT Meeting

Chair: ***Rowlands P.*****, University of Liverpool, G.B.**

10.30-11.00 Melnikov V.N. (Centre for Gravitation and Fundamental Metrology, VNIIMS and Institute of Gravitation and Cosmology, PFUR. VNIIMS, Moscow, Russia). Extra Dimensions, Integrable Models and Observational Windows.

11.00-11.30 Syed Afsar Abbas. (Centre for Theoretical Physics, JMI, New Delhi, India). An alternative framework of geometry and topology in relativity.

11.30-12.00 Vladimirov Yu.S. (Department of Theoretical Physics, Lomonosov Moscow State University, Russia). To discussion of Einstein and Levi-Civita about essence of general relativity theory.

12.00-12.30 Mychelkin E., Pervushin V., Saveliev V. (Fesenkov Astrophysical Institute, Nat. Center of Space Researches and Technologies, Almaty, Kazakhstan; Bogoliubov Lab. Theor. Physics, JINR, Dubna, Russia; Institute of Ionosphere, Nat. Center of Space Researches and Technologies, Almaty, Kazakhstan). The special status of Scalar field in Gravitation, Electrodynamics and Yang-Mills theories.

12.30-13.00 Pavlov D., Lebedev S., Garas'ko G. (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino; All-Russia Institute of Electrotechnics, Moscow; Bauman Moscow State Technical University, Moscow, Russia). The Background Radiation Anisotropy And The 4D Finsler Space With The Berwald-Moore Metric.

13.00-14.00h Lunch Break

Chair: Syed Afsar Abbas. (Centre for Theoretical Physics, JMI, New Delhi, India).

14.00-14.20 Kassandrov V.V. (Institute of Gravitation and Cosmology, Russian Peoples' Friendship University, Moscow). Dimerous Electron and Quantum Interference beyond the Probability Amplitude Paradigm.

14.20-14.40 Rowlands P. (Oliver Lodge Laboratory, Department of Physics, University of Liverpool, Liverpool, UK). Beyond the Dirac equation.

14.40-15.00 Bisnovatyi-Kogan G.S., Tsupko O.Yu. (Space Research Institute of Russian Academy of Science, Moscow, Russia). Gravitational lensing in the nonuniform plasma.

15.00-15.20 Bulyzhenkov I.E., (P.N. Lebedev Physical Institute RAS, Moscow, Russia). Relativistic Sommerfeld quantization denies path-dependent metrics and gravitational analogs of the Aharonov-Bohm Effect.

15.20-15.40 Trell E. (University of Linköping, Linköping, Sweden). Distilling Real-Form Elementary Particle Spectroscopy In Original Digital Universe of the Regular Solids.

15.40-16.00h Coffee Break

Chair: K.A. Bronnikov, Centre for Gravitation and Fundamental Metrology, VNIIMS and Institute of Gravitation and Cosmology, Peoples Friendship University of Russia, Moscow, Russia

16.00-16.20 Fomin I.V., Chervon S.V. (Ulyanovsk State University, Ulyanovsk, Russia). Determination of cosmological inflation parameters on the base of difference between precise and approximation solutions of scalar field equations.

16.20-16.40 Bronnikov K.A., Rubin S.G. (Center for Gravitation and Fundamental Metrology, VNIIMS; Institute of Gravitation and Cosmology, Peoples' Friendship University of Russia, Russia). Nonlinear multidimensional gravity and cosmology.

16.40-17.00 Petrova L.I. (Lomonosov Moscow State University, Department of Computing Mathematics and Cybernetics, Moscow, Russia). Role of skew-symmetric differential forms in field theory.

17.00-17.20 Mayburov S. (Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia). Fuzzy geometry of space-time and gauge fields.

17.20-17.40 Yamaleev R.M. (Facultad de Estudios Superiores, Universidad Nacional Autonoma de Mexico, Mexico). New representation for energy-momentum and its applications to relativistic dynamics.

17.40-18.00 Zhogin I.L. (Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia). On relevance of modified gravities.

18.00h Close of the Monday Session of Lectures

Tuesday 7th July 2009. Conference Hall. Study Laboratory Building

Chair: Pustovoit V.I. Science Technological Center of Unique Instruments of RAS, Moscow, Russia.

9.00-9.30 Urusovskii I.A. (Acoustics Acad. N.N. Andreev Institute, Moscow, Russia). Gravitational Waves in the Six-dimensional Treatment of Gravitation.

9.30-10.00 Samodurov V.A., Siparov S.V. (Puschino radio astronomy observatory, Astro Space Center of P.N. Lebedev Physical Institute of Russian Academy of Sciences, Pushchino; Research Institute for Hypercomplex Systems in Geometry and Physics, Fryazino; State University of Civil Aviation, Department of Physics, St-Petersburg, Russia). Search of the periodical component in cosmic maser signals, interpretation of observation results.

10.00-10.30 Nesterenko E.A., Pustovoit V.I. (Bauman Moscow State Technical University, Moscow, Russia).Role of the absorption inside multilayer coating of mirrors in laser gravitational antennas.

10.30-11.00 Coffee Break

11.00-11.30 Kolosnitsyn N.I. (Moscow, Russia). Calculation principles for laser interferometer detectors of gravitational waves.

11.30-12.00 Zherikhina L.N., Izmailov G.N., Golovashkin A.I., Tshovrebov A.M. (P.N. Lebedev Physical Institute of Russian Academy of Sciences, Moscow; Moscow Aviation Institute (State Technical University), Department of Physics, Moscow, Russia). Quantum interpretation of gravitational light deflection.

12.00-12.30 Krysanov V.A. (Institute for Nuclear Research RAS, Sternberg Astronomical Institute MSU, Moscow, Russia). Suppression of laser frequency fluctuations in project "OGRAN".

12.30-13.00 Gladyshev V.O., Leont'ev A.D., Podguzov G.V., Tiunov P.S., Sharandin E.A. (Department of Physics, Bauman Moscow State Technical University, Russia; Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino). Interference optical experiments for finding space anisotropy.

13.00-14.00h Lunch Break

Chair: Izmailov G.N. (Moscow Aviation Institute (State Technical University), Department of Physics, Moscow, Russia).

14.00-14.20 Yarman T. (Okan University, Istanbul, Turkey). Wave-like Interaction, or the same Interaction without any Energy Exchange.

14.20-14.40 Konstantinov M.Yu. (Department of Physics, Bauman Moscow State Technical University, Russia). On space-time models with minimal length and on the hypothesis of a discrete space.

14.40-15.00 Pavlov D.G. (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino). Symmetry and geometrical invariants.

18.00h Close of the Tuesday Session of Lectures

Wednesday 8th July 2007. Conference Hall. Study Laboratory Building

Chair: Vladimirov Yu.S. (Department of Physics, Lomonosov Moscow State University, Moscow, Russia.

9.00-9.30 Rudenko V.N. (Sternberg State Astronomical Institute, Lomonosov Moscow State University, Moscow, Russia). Search of cosmic gravitational wave signals by ground detectors (current situation).

9.30-10.00 Smirnov V.N., Yegorov N.V., Panchelyuga V.A. (Moscow Physical and Engineering Institute; Moscow; S.-Petersburg State University, S.-Petersburg; Research Institute Hyper Complex Systems in Geometry and Physics, Fryazino; Theoretical and Experimental Biophysics Institute of RAS, Puschino, Russia). On detection of non-electromagnetic nature action from remote astrophysical objects.

10.00-10.30 Vargashkin V.Ya. (Department of Physics, Orel State Technical University, Orel, Russia). The analysis of anisotropy of a visible part of the Universe about use astro- and photometry of quasars.

10.30-11.00 Coffee Break

11.00-11.30 Ivashchuk V.D. (Center for Gravitation and Fundamental Metrology, VNIIMS; Institute of Gravitation and Cosmology, Peoples' Friendship University of Russia, Moscow, Russia). On multitemporal generalization of Newton's gravitational law.

11.30-12.00 Meierovich B.E. (P.L.Kapitza Physical Problems Institute of RAS, Moscow, Russia). Spontaneous Symmetry Breaking in General Relativity. Applications to: early Universe, multidimensional gravity, and brane world concept.

12.00-12.30 Nurgaliev I.S., (Department of Physics, Russian State Agrarian University n.a. K.A.Timiryazev, Moscow, Russia). Cosmological Structure of the Multi-component Bouncing Universe.

12.30-13.00 Kubasov A.S., Chervon S.V. (Ulyanovsk State University, Ulyanovsk, Russia). Precise solutions for the nonsingular Universe given rise by chiral fields.

13.00-14.00h Lunch Break

Chair: **Siparov S. V. State University of Civil Aviation, Department of Physics, St-Petersburg, Russia**

14.00-14.20 Laptev Yu.P., Fil'chenkov M.L. (Department of Physics, Bauman Moscow State Technical University, Moscow, Russia). Graviatoms corrected for DeWitt's self-action, minihole rotation and particle spin.

14.20-14.40 Gorelik V.S, (P.N.Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia). Relativistic effects in lattice dynamic theory and crystalline model of physical vacuum.

14.40-15.00 Bolokhov S.V. (Peoples's Friendship University of Russia, Moscow, Russia). On the dimensional reduction in unified theories based on the different geometries.

15.00-15.20 Golubtsova A.A., Ivashchuk V.D. (Institute of Gravitation and Cosmology, Peoples' Friendship University of Russia, Moscow, Russia). On multidimensional analogs of Melvin solution for simple Lie algebras.

15.20-15.40 Zhelnorovich V.A. (Research Institute of Mechanics, Lomonosov Moscow State University, Moscow, Russia). A new cosmological model in theory of gravity.

15.40-16.00 Coffee Break

Chair: **Ivashshuk V.D. (Centre for Gravitation and Fundamental Metrology, VNIIMS and Institute of Gravitation and Cosmology, Peoples Friendship University of Russia, Moscow, Russia**

16.00-16.20 Dokuchaev V.I., Chernov S.V., (Lebedev Physical Institute RAS, Moscow, Russia Institute for Nuclear Research of the RAS, Moscow, Russia). Dynamics of spherical shells in General Relativity.

16.20-16.40 Shestakov Yu.I. (Russian Research Centre Kurchatov Institute, Moscow, Russia). The Scalar model of Gravitation.

16.40-17.00 Babourova O.V., Kostkin R.S. (Moscow State Pedagogical University, Department of Physics for Nature Sciences, Moscow, Russia). Using of symbolical calculations for solving of the modern theory of gravitation.

17.00-17.20 Panina O.G., Chervon S.V. (Ulyanovsk State University, Ulyanovsk, Russia). Chiral fields dynamics on the inflation background.

17.20-17.40 Khokhlov D. (Sumy State University, Sumy, Ukraine). Repulsive Gravitational Potential.

17.40-18.00 Manko V.S., (CINVESTAV-IPN, Mexico). The double-Gibbons-Maeda solution.

18.00h Close of the Wednesday Session of Lectures

Thursday 9th July 2007. Conference Hall. Study Laboratory Building

Chair: **T. Yarman, Okan University, Akfirat, Istanbul, Turkey**

9.00-9.30 Kautz V.L. (Astro Space Center of P.N. Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia). Distribution of dark matter in the Solar system.

9.30-10.00 Koryukin V.M. (Department of Physics and Mathematics, Mari State University, Yoshkar-Ola, Russia). On the presence of "sterile" neutrinos in the Universe.

10.00-10.30 Levin S.F. (Testing and Expert Moscow Institute, Moscow, Russia). On spatial anisotropy of red shift in spectrums of ungalaxy sources.

10.30-11.00 Coffee Break

11.00-11.30 Lo C.Y., Chung Yin. (The Applied and Pure Research Institute, USA). The Mass-Charge Repulsive Force and Space-Probes Pioneer Anomaly.

11.30-12.00 Frolov B.N., Kouchoumov A.Yu. (Department of Physics for Nature Sciences, Moscow State Pedagogical University, Moscow, Russia). Weyl's nonmetricity and Dirac's scalar field as two components of dark energy.

12.00-12.30 Fadeev N.G. (Joint Institute for Nuclear Research, Dubna, Russia). Inertial frame transformation based on Lobachevsky function and some optical phenomena (Michelson-Morley experiment and Doppler effect).

12.30-13.00 Antonyuk P.N. (Bauman Moscow State Technical University, Russia). Lorentz transformations and rational functions.

13.00-14.00h Lunch Break

Chair: Vargashkin V.Ya. Oryol State Technical University, Department of Physics, Oryol, Russia

14.00-14.20 Kokarev S.S. (Research Institute Hyper Complex Systems in Geometry and Physics, Fryazino, Russia). Is it really that different geometries are different?

14.20-14.40 Voicu-Brinzei N. (Transilvania" University, Braşov, Romania). Anisotropy and analogies between gravity and electromagnetism

14.40-15.00 Siparov S.V. (Research Institute for Hypercomplex Systems in Geometry and Physics, Fryazino; State University of Civil Aviation, Department of Physics, St-Petersburg, Russia). Anisotropic geometrodynamics for cosmological problems.

15.00-15.20 Garas'ko G. (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino; All-Russia Institute of Electrotechnics, Moscow, Russia). The Self-Efficiency Property Of The Finsler Spaces.

15.20-15.40 Zhotikov V.G. (Moscow Institute for Physics and Technology, Moscow Region, Dolgoprudny, Russia). Finsler geometry (according to Wagner) and the equations of the movement in the relativistic dynamics.

15.40-16.00 Coffee Break

16.00-16.20 Polishchuk R.F. (Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia). Space-time-matter and hypercomplex numbers as a creative myth.

16.20-16.40 Zakirov U.N. (Establishment of the Russian Akademy of Science Institute of mechanics and enqineering Kaz NC the RAS, Kazan, Russia). Dynamics of the concentrated variable weight of rest (CVM) on On the basis of theory Kaluza-Klein.

16.40-17.00 Shestakova T.P. (South Federal University, Department of Theoretical and Computational Physics, Rostov-on-Don, Russia). Hamiltonian formulation of General Relativity 50 years after the Dirac celebrated paper: do unsolved problems still exist?

17.00-17.20 Lebedev Y.A. (Bauman Moscow State Technical University, Moscow, Russia). Everettica and general theory of relativity.

17.20-17.40 Yurasov N.I. (Bauman Moscow State Technical University, Department of Physics, Moscow, Russia). The phase relativistic invariant and the Heizenberg relations.

17.40-18.00 Rylov Yu.A. (Institute for Problems in Mechanics of RAS, Moscow, Russia). Geometric paradigm is a necessity, but not a hypothesis.

18.00h Close of Moscow PIRT Meeting.

Posters

Rawash Abubakr Hamza, (Cairo University, Imbaba, Giza, Egypt). Using induction effect and analogy as a key of : relativity , pioneer anomaly**.**

Baranov A.M., Vlasov Z.V., (Siberian Federal University. Department of Theoretical Physics, Krasnoyarsk, Russia). Charged Ball Static Star Model

Kucherinenko Ya.V. (Geological Faculty of Lomonosov Moscow State University, Moscow, Russia). Analogy of growth of crystal grains and gravitation on the 3-D sphere.

Bogoslovsky G.Yu. (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino; Skobeltsyn Nuclear Physics Institute of Lomonosov Moscow State University, Russia). Towards Finsler Expansion of General Relativity.

Christov Ch.I. (Dept. of Mathematics, University of Louisiana at Lafayette Dept. of Mathematics, USA). Nonlinear Continuum Mechanics of Space and the Frame-Indifferent (Truly Covariant) Formulation of Electromagnetism.

Mircea Neagu. (University Transilvania of Brasov, Faculty of Mathematics and Informatics, Department of Algebra, Geometry and Differential Equations, Brasov, Romania.). Jet Berwald-Riemann-Lagrange Geometrization for Affine Maps between Finsler Manifolds.

Nassikas A.A. (Technological Education Institute of Larissa, Larissa, Greece). The Claim for Minimum Contradictions and The Evolution of Universe.

Gertsenshtein M.E. (Skobeltsyn Nuclear Physics Institute of Moscow State University, Moscow, Russia). On the structure of electromagnetic field in elementary particles.

Gertsenshtein M.E. (Skobeltsyn Nuclear Physics Institute of Moscow State University, Moscow, Russia). On measurements of fields in quantum electrodynamics.

Gertsenshtein M.E., Klavdiev V.V., Shvilkin B.N. (Skobeltsyn Nuclear Physics Institute of Moscow State University, Moscow, Russia). On possible nature of a magnetic field of an electron spin.

Petrov A.N. (Relativistic Astrophysics group, Sternberg Astronomical institute, MoscowRussia). On conserved quantities for 3d kaluza-klein black holes in the einstein-gauss-bonnet gravity.

Chelnokov M.B. (Bauman Moscow State Technical University, Department of Physics, Moscow, Russia). Expansion of Plank system.

John Ryskamp. (Berkeley, CA, USA). The New Set Theory Historiography and the Role of “Practical Geometry” in the Formulation of the Relativity of Simultaneity.

Mordvinov B.P. (Russian Federal Nuclear Center, Snezhinsk, Russia. Theories of structure evolution of Universe on the base of GR. Towards the Unified Theory.

Golub’ Yu.Ya. (Department of Physics, Bauman Moscow State Technical University, Russia). Effect Of Total External Reflection.