

Programme of International Meeting Physical Interpretations of Relativity Theory -2015

Monday 29 June – Thursday 2 July 2015

Department of Physics, BMSTU, Moscow

Monday 29th June 2015. Conference Hall. Study Laboratory Building BMSTU

9.00-10.00h Registration of delegates

10.00-10.30h Opening the PIRT Meeting

Chair: Rowlands P. (University of Liverpool, G.B.)

10.30-11.00 *Pustovoit V.I.* (Science Technological Center of Unique Instruments of RAS, Russia) **On the Way of Increasing Sensitivity of Laser Gravitational Antenna.**

11.00-11.30 *Rudenko V.N., Biriukov A.V., Kauts V.L., Kulagin V.V., Litvinov D.A.* (Sternberg State Astronomical Institute, Lomonosov Moscow State University, Russia) **Observation of Gravitational Redshift effect with “Radioastron” satellite.**

11.30-12.00 *Rosanov N.N.* (Vavilov State Optical Institute, Russia) **Dissipative Optical Solitons.**

12.00-12.30 *Wallis M.K., Marshall T.V.* (University of Buckingham, United Kingdom) **Energy in general relativity - the case of the neutron star.**

12.30-13.00 *Balan V.* (University Politehnica of Bucharest, Romania) **Spectral theoretical aspects of anisotropic relativistic models.**

13.00-14.00h Lunch Break

Chair: Gorelik V.S. (Lebedev Physical Institute, Moscow, Russia)

14.00-14.30 *Izmailov G.N., Tskhovrebov A.M., Zherikhina L.N.* (Moscow Aviation Institute, P.N. Lebedev Physical Institute of the RAS, Russia) **Dark Matter. Search for particles.**

14.30-14.50 *Fomin I.V.* (Bauman Moscow State Technical University, Russia) **Gravitational waves perturbations of the early Universe.**

14.50-15.10 *Antonyuk P.N.* (Bauman Moscow State Technical University, Russia) **The special theory of relativity and the theory of physical similarity.**

15.10-15.30 *Yurasov N.I., Yurasova I.I.* (Bauman Moscow State Technical University, Russia) **Movement of a relativistic particle in a spherical box.**

15.30-16.00h Coffee Break

Chair: Giazotto A. (INFN - Sezzone di Piza, Italia)

16.00-16.20 *Pavlov A., Pervushin V.* (Russian State Agrarian University - Moscow Timiryazev Agricultural Academy, Russia) **Intrinsic time in WDW conformal superspace.**

16.20-16.40 *Kudriavtcev Iu.* (Russia) **Correlation of the angular distributions of the antisymmetrical component of the microwave backgrounds temperature deviation and the redshifts of quasars.**

16.40-17.00 *Meierovich B.E.* (P.L. Kapitza institute for physical problems, Russia) **Phenomenological description of dark energy and dark matter via vector fields.**

17.00-17.20 *Balitsky Ja.V., Kiselev V.V.* (Moscow Institute of Physics and Technology, Russian State Research Center Institute for High Energy Physics (National Research Centre Kurchatov Institute), Russia) **Quantum origin of suppression for vacuum fluctuations of energy.**

17.20-17.40 *Chelnokov M.* (Bauman Moscow State Technical University, Russia) **Spatial inversion and P-parity nonconservation.**

17.40-18.00 *Hajra S.* (Calcutta Mathematical Society, India) **Relativistic Precessions and Classical Electrodynamics.**

18.00h Close of the Monday Session of Lectures

Tuesday 30th June 2015. Conference Hall. Study Laboratory Building

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

9.00-9.30 *Rowlands P.* (University of Liverpool, United Kingdom) **Fundamental symmetries foundational to physics.**

9.30-10.00 *Bagaev S.N.* (Institute of laser physics SB RAS, Russia)

10.00-10.30 *Hajra S.* (Calcutta Mathematical Society, India) **Classical Electrodynamics and the Theory of Relativity.**

10.30-11.00 Coffee Break

11.00-11.30 *Majumdar A.S., Bose N.* (S. N. Bose National Centre for Basic Sciences, India) **Backreaction due to inhomogeneities and the future evolution of an accelerating universe.**

11.30-12.00 *Levin S.F.* (Moscow Institute for expertise and tests, Russia) **Measurement problem of structural-parametric identification on supernovae type SN Ia for cosmological distances scale of red shift based.**

12.30-13.00 *Victor de Haan* (Bon Physics Research and Investigations BV, The Netherlands) **Experiments to test special relativity.**

13.00-14.00h Lunch Break

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

14.00-14.30 *Gorelik V.S.* (Lebedev Physical Institute of RAS, Russia) **Photon-axion conversion in low symmetrical dielectric structures.**

14.30-14.50 *Burinskii A.* (Nuclear Safety Institute Russian Academy of Sciences, Russia) **Unification of the dressed and point like electron in a gravitating bag-string-quark model.**

14.50-15.10 *Koryukin V.M., Koryukin A.V.* (Mari State University, Russia) **On the quantum gravity and the stationary Universe.**

15.10-15.30 *Kiktenko E.O., Korotaev S.M.* (Bauman Moscow State Technical University, Geoelectromagnetic Research Centre of Schmidt Institute of Physics of the Earth, RAS, Russia) **Quantum causality in the closed time like curves.**

15.30-16.00 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 *Kassandrov V.V., Khasanov Il.Sh.* (Institute of Gravitation and Cosmology, Peoples' Friendship University of Russia, Russia) **Collective Lorentz-invariant dynamics on a unique worldline: conservation, quantization, clusterization.**

16.20-16.40 *Avramenko A.E.* (P.N. Lebedev Physical Institute of the RAS, Russia) **The relativistic regularities of the periodic radiation of neutron stars.**

- 16.40-17.00 *Baranov A.M., Saveliev E.V.* (Krasnoyarsk State Pedagogical University named after V.P. Asta, Russia) **Multidimensional conformal-flat space-times and a linear equation of state.**
- 17.00-17.20 *Shestakova T. P.* (Southern Federal University, Russia) **Penrose objective reduction from the viewpoint of the extended phase space approach to Quantum Geometrodynamics.**
- 17.20-17.40 *Krysanov V.A.* (Institute for Nuclear Research, Sternberg State Astronomical Institute, Lomonosov Moscow State University, Russia) **Convert of offsets for gravitational wave detector.**
- 17.40-18.00 *Ajay K.S.* (Science Section Department of Education, India) **The mathematical derivation or speculation of $E=\Delta mc^2$ in Einstein's September 1905 paper, and some peculiar experiments.**
- 18.00h Close of the Tuesday Session of Lectures**

Wednesday 1st July 2015. Conference Hall. Study Laboratory Building

Chair: Bagaev S.N. (Institute of laser physics SB RAS , Russia)

- 9.00-9.30 *Giazotto A.* (INFN - Sezzone di Piza, Italia) **Second generation Gravitational Wave detectors: Advaced Virgo.**
- 9.30-10.00 *Majumdar A.S., Mousavi S.V., Home D.* (S. N. Bose National Centre for Basic Sciences, India) **Equivalence principle and quantum statistics.**
- 10.00-10.30 *Bogoslovsky G.Yu.* (Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University , Russia) **Conformal invariance and local anisotropy of spacetime.**
- 10.30-11.00 Coffee Break**
- 11.00-11.20 *Sarwe S.* (St. Francis De Sales College, India) **Linear isentropic Equation of State in formation of Black hole and Naked singularity.**
- 11.20-11.40 *Abul K.M. Masood-ul-Alam* (Tsinghua University, China) **An imaginary temperature far away from a stationary spinning star.**
- 11.40-12.00 *Wagh S.* (Central India Research Institute, India) **Abandoning the Relativity of Time.**
- 12.00-12.20 *Siddiqui A.A.* (National University of Sciences and Technology (NUST), Pakistan) **Foliation of the Schwarzschild black hole surrounded by quintessence.**
- 12.20-12.40 *Chervon S.* (Ilya Ulyanov State Pedagogical University, Russia) **Exact and slow roll inflation: connection to observations.**
- 12.40-13.00 *Isaeva E.A., Aliev M.I.* (Institute of Physics of Azerbaijan Academy of Sciences, Azerbaijan) **The a priori thinking in physical science.**
- 13.00-14.00h Lunch Break**
- Chair: Vladimirov Yu.S.** (Moscow State University, Russia)
- 14.00-14.20 *Dumin Yu.V.* (Lomonosov Moscow State University, Russia) **The Faint Young Sun Paradox in the Context of Modern Cosmology.**
- 14.20-14.40 *Babourova O.V., Frolov B.N., Zaigrova V.V.* (Moscow State Pedagogical University, Russia) **Spin-dilaton dark matter in Cartan-Weyl space.**
- 14.40-15.00 *Konstantinov M.Yu.* (Bauman Moscow State Technical University, Russia) **On one Hawking's hypothesis.**
- 15.00-15.20 *Lo C.Y.* (Applied and Pure Research Institute, USA) **The Question of Einstein's Speculation $E = mc^2$ and Related Experiments.**
- 15.20-15.40 *Vertogradov V.D.* (Herzen State Pedagogical University of Russia, Russia) **Black holes and naked singularities in generalized Vaidya metric.**
- 15.40h Close of the Wednesday Session of Lectures**

Thursday 2th July 2015. Conference Hall. Study Laboratory Building

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

9.00-9.30 *Vladimirov Yu.S.* (Moscow State University, Russia) **Relational-statistical theory of space-time and interactions.**

9.30-10.00 *Siparov S.V.* (Saint Petersburg State University of Civil Aviation, Saint Petersburg National Research University of Information Technologies, Mechanics and Optics, Russia) **Metric interpretation of field theories.**

10.00-10.30 *Bolotovskii B.M.* (Lebedev Physical Institute of RAS, Russia) **On the observation of moving bodies.**

10.30-11.00 Coffee Break

11.00-11.30 *Rylov Yu.A.* (Institute for Problems in Mechanics, Russian Academy of Sciences, Russia) **Relativity principle in coordinate free presentation.**

11.30-12.00 *Petrova L.I.* (Moscow State University, Russia) **Foundations of the field theory: Connection of the field-theory equations with the equations of mathematical physics.**

12.00-12.30 *Andreev V., Tsipenyuk D.* (Lebedev Physical Institute of RAS, Prokhorov General Physics Institute RAS, Russia) **Potential barrier penetration and particle size in the extended space model.**

12.30-13.00 *Babourova O.V., Frolov B.N., Romanova E.V.* (Moscow State Pedagogical University, Russia) **Spherically symmetric solution of the theory of gravitation with Dirac scalar field in Cartan-Weyl space.**

13.00-14.00h Lunch Break

Chair: Balan V. (University Politehnica of Bucharest, Romania)

14.00-14.20 *Vargashkin V.Ja.* (State University —Education-Science-Production Complex, Russia) **About presence of quasi-oscillatory trend in distribution of QSO's on cosmological distance.**

14.20-14.40 *Lukanenkov A.V.* (Russia) **Experimental detection of gravitational waves.**

14.40-15.00 *Lebedev Yu.A.* (Bauman Moscow State Technical University, Russia) **Quasi-Non-Temporal Configuration Everettil Spaces.**

15.00-15.20 *Ivashuk V.D., Melnikov V.N.* (Centre for Gravitation and Fundamental Metrology, VNIIMS and Institute of Gravitation and Cosmology, Peoples' Friendship University of Russia, Russia) **Quantum billiards and singularity.**

15.20-15.40 *Zhotikov V.G.* (Moscow Institute for Physics and Technology (Government University), Russia) **Principle of relativity and «hidden» symmetries of the matter motion.**

15.40-16.00 Coffee Break

16.00-16.20 *Fil'chenkov M.L., Laptev Yu.P.* (Peoples' Friendship University of Russia, Russia) **Hyper-Fast Galaxy Travel via Alcubierre's Warp Drive.**

16.20-16.40 *Shatskiy A.* (Lebedev Physical Institute of RAS, Russia) **The model predictions of the results for interferometric observations of stars at black hole or wormhole gravitational scattering.**

16.40-17.00 *Tomilin K.A.* (IHST RAS, Russia) **Fundamental constants and system of units.**

17.00-17.20 *Boriev I.A.* (The Branch of Talrose Institute for Energy Problems of Chemical Physics of RAS, Russia) **Real state of the physical properties of space and time.**

17.20-17.40 *Shishanin A.O.* (Bauman Moscow State Technical University, Russia) **Tetrads and BF-gravity.**

17.40-18.00 *Stepanova T.R., Vahhi E.N.* (Peter the Great St. Petersburg Polytechnic University, Russia) **Maxwell equations and the properties of spatial-temporary continuum.**

18.00h

Close of Moscow PIRT Meeting.

POSTERS

Kudriavtcev Iu. (Russia) **Once again about Einstein's realism: the matter waves and Bell's inequalities from the point of view of the special theory of relativity.**

Kuznetsov S.I. (Web-Institute for Time Nature Explorations, Russia) **Model-independent solution to dark energy problem.**

Izmailov G.N., Tskhovrebov A.M., Zherikhina L.N. (Moscow Aviation Institute, P.N. Lebedev Physical Institute of the RAS, Russia) **Josephson detector for abnormally weak gravitational perturbations.**

Izmailov G.N., Tskhovrebov A.M., Zherikhina L.N., Dresvyannikov M. (Moscow Aviation Institute, P.N. Lebedev Physical Institute of the RAS, Russia) **Flux quantization in the superconducting ring: calibration, physical and geometric properties of an electromagnetic field.**

Chelnokov M. (Bauman Moscow State Technical University, Russia) **Chaos of time of the Universe.**

Jerzy Filus (Oakton Community College, USA) **Complex Euclidean "Paraspace" Model for 'SR' as an Alternative for Real Minkowski Space-Time.**

Konovalov V.V. (Ministry of finance of Permsky Kray, Russia) **Classical interpretation of Theory of Relativity.**

Levin S.F. (Moscow Institute for expertise and tests, Russia) **Applicability problems for statistical methods in measuring problems of cosmology.**

Gladysheva Ya.V. (Bauman Moscow State Technical University, Russia) **Calibration of high precision surfaces of gravitational wave telescope optics.**