

Научная программа международной конференции «Физические интерпретации теории относительности»

Название секции: *Гравитационные волны и экспериментальные проверки теории относительности*

Краткое описание секции: *В данной секции обсуждаются вопросы, связанные с недавним открытием гравитационных волн и дальнейшим развитием гравитационно-волновой астрономии. Также рассматриваются предложения о проведении новых тестов теории относительности, включая космические, обсуждаются результаты выполненных экспериментов, их физические интерпретации.*

Дата: 01.07.2019

Время	ФИО докладчика	Название доклада
8.00-9.00	<i>Регистрация участников</i>	
9.00-9.30	<i>Открытие конференции</i>	
9.30-10.00	<i>Starobinsky A.A.</i>	<i>Inflation: the present status and future perspectives</i>
10.00-10.30	<i>Vyatchanin S.</i>	<i>Calculation of thermal noise of beam splitters in laser gravitational wave detectors from first principles</i>
11.00-11.30	<i>Sazhin M.</i>	<i>Nano Hertz Gravitational Waves: Detectors and Sources</i>
11.30-12.00	<i>Milyukov V.</i>	<i>The space-borne gravitational wave detector TianQin: mission concept and realization</i>
12.00-12.30	<i>Rudenko V.N.</i>	<i>New orbital measurement experiments gravitational frequency shift of electromagnetic signals</i>
12.30-13.00	<i>Pustovoit V., Gladyshev V., Kauts V., Morozov A., Gorelik V., Fomin I., Portnov D., Sharandin E., Kayutenko A.</i>	<i>High frequency gravitational waves generation by optical method</i>
Время	ФИО докладчика	Название доклада
14.00-14.20	<i>Siparov S.V.</i>	<i>Registration of gravitational waves emitted by periodic astrophysical sources and the prospects for GW-astronomy</i>
14.20-14.40	<i>Pinto I.M.</i>	<i>Reducing Optical Coating Thermal Noise in Interferometric Detectors of Gravitational Waves</i>
14.40-15.00	<i>Le T.D.</i>	<i>An updated constraint on the variations of the fine-structure constant from strong gravitational fields</i>
15.00-15.20	<i>Litvinov D., Gusev A., Kauts V., Kulagin V., Rudenko V.</i>	<i>Space gravitational experiments with quantum standards of frequency and time</i>
15.20-15.40	<i>Mayburov S.</i>	<i>Nucleus decay oscillations as possible quantum gravity effect</i>
16.10-16.30	<i>Dubey R.K.</i>	<i>Gravitational Waves through the collisions of SMBHs in Merging Galaxies</i>
16.30-16.50	<i>Izmailov G.N, Zherihina L.N.</i>	<i>A precision clock network as an antenna for millihertz gravitational</i>

		waves
16.50-17.10	<i>Fil'chenkov M.L., Laptev Yu.P.</i>	<i>Gravitational radiation from minihole coalescence and quadrupole transitions of hydrogen-like atoms</i>
17.10-17.30	<i>Lin T.</i>	<i>Influence of Control Signal on the Amplitude-Frequency Characteristic of the Damper Based on Magnetorheological Elastomers</i>
17.30-17.50	<i>Fisenko S.</i>	<i>On the issue of gravitational radiation and thermonuclear fusion</i>
10.30-11.00	<i>Krysanov V.A.</i>	<i>Laser Noise Control in the Optoacoustical GW Antenna</i>
13.00-14.00	<i>Lukanenkov A.V.</i>	<i>Analysis of gravitational experiments</i>
15.40-16.10	<i>Gladyshev V.O., Bazlev D.A., Kayutenko A.V.</i>	<i>The new analytics platform for the search of new scientific knowledge in relativity theory</i>
<i>Стендовые доклады</i>	<i>Mubarakshin I.R.</i>	<i>About principal propositions of the special relativity theory</i>
	<i>Chervon S.V., Fomin I.V., Mayorova T.I., Khapaeva A.V.</i>	<i>Cosmological parameters for $f(\mathbf{R}, (\nabla\mathbf{R})^2)$ theory of gravity</i>
	<i>Bibi R.</i>	<i>Some models of Einstein-Maxwell equations for a compact object</i>

Название секции: Гравитация, космология и крупномасштабная структура Вселенной.

Краткое описание секции: В данной секции обсуждаются современные обобщения и наблюдаемые следствия теории относительности и космологии, такие, как анизотропия реликтового микроволнового излучения, крупномасштабная структура Вселенной, темная материя и темная энергия

Дата: 02.07.2019

<i>Время</i>	<i>ФИО докладчика</i>	<i>Название доклада</i>
9.00-9.25	<i>Medeiros L.G., Guzinatto R.R., Pompeia P.L.</i>	<i>Modified Starobinsky inflation</i>
9.25-9.50	<i>Behera D.</i>	<i>Cosmic transit behaviour and anisotropic Cosmological models</i>
9.50-10.15	<i>Beesham A.</i>	<i>The cosmological parameter: constant or dynamical</i>
10.40-11.05	<i>Mishra B.</i>	<i>New approach to study the dynamical cosmic behaviour in extended gravity</i>
11.05-11.30	<i>Triay R.</i>	<i>Voids as cosmological structure</i>
11.30-11.55	<i>Sharif M.</i>	<i>Anisotropic Solutions and Minimal Geometric Deformation</i>
11.55-12.20	<i>Tripathy S.K.</i>	<i>Bouncing models in extended gravity theory</i>
12.20-12.45	<i>Berezin V.A., Dokuchaev V.I., Eroshenko Yu.N., Smirnov A.L.</i>	<i>Double layers in the Weyl+Einstein gravity</i>
12.45-13.10	<i>Sushkov S.V.</i>	<i>Cosmological perturbations during the kinetic inflation in the Horndeski</i>

		<i>theory</i>
Время	ФИО докладчика	Название доклада
14.00-14.15	<i>Nikolaev A.V., Chervon S.V., Mayorova T.I.</i>	<i>Kinetic scalar curvature extended $f(R)$ gravity</i>
14.15-14.30	<i>Novikov D.</i>	<i>Zeldovich-Sunyaev anisotropy effect and the possibility of independent measurement of cosmic microwave background dipole, quadrupole and octupole.</i>
14.30-14.45	<i>Chervon S.V.</i>	<i>Cosmological parameters in modified theories</i>
14.45-15.00	<i>Fomin I.V.</i>	<i>The general relativistic cosmological solutions in modified gravity theories</i>
15.00-15.15	<i>Cisterna A.</i>	<i>Homogeneous anti de Sitter black strings in General Relativity and Lovelock theory</i>
15.15-15.30	<i>Singh V., Beesham A.</i>	<i>Some exact solutions of anisotropic cosmological models</i>
15.30-15.45	<i>Kudriavtsev I.</i>	<i>The phenomenon of the central symmetry and antisymmetry of the celestial sphere and its significance for the cosmological model of The Big Bang</i>
16.00-16.15	<i>Emtsova E.D., Petrov A.N., Toporensky A.N.</i>	<i>On conservation laws in Teleparallel gravity</i>
16.15-16.30	<i>Ray Pratik P., Mishra B.</i>	<i>Stability of mix-fluids in dark energy cosmological models and an advanced diagnostic analysis</i>
16.30-16.45	<i>Babourova O.V., Frolov B.N.</i>	<i>On the exponential decrease of the “cosmological constant” in the superearly Universe</i>
16.45-17.00	<i>Pavlov D.G.</i>	<i>Basic properties of the time field</i>
17.00-17.15	<i>Brassel B.P., Maharaj S.D.</i>	<i>The Boulware-Deser spacetime: Solutions and features</i>
17.15-17.30	<i>Bogoslovsky G.Yu.</i>	<i>A curved spacetime with $DISIM_b(2)$ local relativistic symmetry and local gauge invariance of its Finslerian metric</i>
17.30-17.45	<i>Dumin Yu.V.</i>	<i>Cosmological Inflation from the Quantum-Mechanical Uncertainty Relation</i>
17.45-18.00	<i>Vargashkin V.</i>	<i>The analysis of CMB anisotropy in temporary domain according to databases of the probes WMAP and PLANCK</i>
10.15-10.40	<i>Konstantinov M.Yu.</i>	<i>Superluminal Fields in Bimetric Space-Time Theory</i>
13.10-14.00	<i>Antonyuk P.N.</i>	<i>On the Hubble-Lemaitre law</i>
15.45-16.00	<i>Olkhov O.A.</i>	<i>Geometrical interpretation of time and new formulation of the general theory of relativity</i>
Стендовые доклады	<i>Chaadaev A.A., Chervon S.V.</i>	<i>Spherically symmetric solutions in $f(R, (\nabla R)^2)$ gravity</i>
	<i>Petrov V.A.</i>	<i>On the “Special” Relativity Genesis: Russian Connection</i>
	<i>Saibatalov</i>	<i>Is the Universe Rotating?</i>
	<i>Ovgun</i>	<i>Weak Gravitational Lensing and Gauss-Bonnet Theorem</i>
	<i>Emtsova E.D., Toporensky A.N.</i>	<i>Velocities of distant objects in General Relativity: definitions,</i>

		<i>interpretations, misconception</i>
	<i>Kudriavtsev I.</i>	<i>On physical and non-physical time in Cosmology and Quantum Mechanics</i>
	<i>Ovalle</i>	<i>Gravitational Decoupling</i>

Название секции: *Релятивистская электродинамика*

Краткое описание секции: *В данной секции обсуждаются современные обобщения релятивистской электродинамики, процессы распространения света в релятивистских средах, возможные прецизионные эксперименты в области электродинамики и гравитации.*

Дата: *03.07.2019*

Время	ФИО докладчика	Название доклада
9.00-9.25	<i>Gorelik V.S.</i>	<i>Bound State of Photons and High Frequency Gravitational Waves excited in Media by Laser Emission</i>
9.25-9.50	<i>Balakin A.B.</i>	<i>Dark Fluid Electrodynamics</i>
9.50-10.15	<i>Amoroso R.L.</i>	<i>Sagnac Dual-Polarized Ring Laser Interferometric Effects of Gravity on EM-Wave Polarization</i>
10.40-10.55	<i>Korotaev S.M., Budnev N.M., Serdyuk V.O., Kiktenko E.O., Gorohov J.V., Orekhova D.A.</i>	<i>Macroscopic Nonlocal Correlations in Reverse Time by Data of the Baikal Experiment</i>
10.55-11.10	<i>Pokrovsky Yu. E.</i>	<i>Stable Compact Objects from Dark Matter in Planetary Systems</i>
11.10-11.25	<i>Gitman D., Levin A.</i>	<i>Entanglement in composite systems due to external influences</i>
11.25-11.40	<i>Gladyshev V.D.</i>	<i>Configuration manifolds of a spherically symmetric system of gravitational and electromagnetic fields</i>
11.40-11.55	<i>Komshin A.</i>	<i>Metrological support of technogenic systems based on the study of the influence heliogeophysical space</i>
11.55-12.10	<i>Hajra S.</i>	<i>An Electrodynamical Study of Shapiro Time Delay</i>
12.10-12.25	<i>Zhugin I.L.</i>	<i>Pseudogravitational waves</i>
12.25-12.40	<i>Gevorkyan M.N., Korolkova A.V., Kulyabov D.S.</i>	<i>Hyperbolic numbers as Einstein Numbers</i>
12.40-12.55	<i>Bulyzhenkov I.</i>	<i>Umov's thermomechanics of inertial thermal energies instead of Newtonian mechanics of cold masses</i>
12.55-13.10	<i>Selivanov A.B., Gerasimov Yu.V., Konstantinov M.Yu.</i>	<i>Emergency seismic sensing method of asteroid structure</i>
13.10-13.25	<i>Kodukula</i>	<i>Physical Interpretation of Quantum Entanglement by Relativity</i>
10.15-10.40	<i>Alimkina I.S., Filatov V.V., Gorelik V.S.,</i>	<i>Paraphoton lasing in periodic dielectrics</i>

Стендовые доклады	<i>Pichkurenko S.V.</i>	
	<i>Gladysheva Ya.V.</i>	<i>Calibration of high precision surfaces of gravitational wave telescope optics</i>
	<i>Chelnokov M.</i>	<i>To be announced</i>
	<i>Gladyshev V.O., Strunin A.G., Kayutenko A.V., Portnov D.I.</i>	<i>Mathematical model of optical radiation propagation in a microsatellite moving in near-earth orbit</i>
	<i>Sharandin E., Gladyshev V.</i>	<i>Simulation of radiation generation in a multistage laser</i>
	<i>Chernitskii A.A.</i>	<i>Photons as solitons</i>
	<i>Guergouri H.</i>	<i>On the dynamic of spinning particles in general relativity</i>

Название секции: *Современные проблемы классической и квантовой теории поля.*

Краткое описание секции: *В данной секции обсуждаются современные проблемы классической и квантовой теории поля, теоретические модели физического вакуума, проблемы физики элементарных частиц.*

Дата: 04.07.2019

Время	ФИО докладчика	Название доклада
9.00-9.25	<i>Kauffman L.H.</i>	<i>Majorana Fermions, Braiding and the Dirac Equation</i>
9.25-9.50	<i>Grib A., Pavlov Yu.</i>	<i>Penrose effect in the rotating coordinate system</i>
9.50-10.15	<i>Darvas G.</i>	<i>Giving mass to the mediating boson of Hypersymmetry by a field transformation applying Higgs mechanism beyond the Standard Model</i>
10.40-11.05	<i>Romero C.</i>	<i>One Hundred Years of Weyl's (unfinished) unified field theory</i>
11.05-11.30	<i>Rowlands P.</i>	<i>Gravity: Local or Nonlocal</i>
11.30-11.55	<i>Maharaj S.</i>	<i>Exact models: symmetries of equations and spacetime</i>
11.55-12.20	<i>Gutierrez-Pineros A.S., Quevedo H.</i>	<i>C^3-Criterion for matching asymptotically flat space-times in General Relativity</i>
12.20-12.45	<i>Lebed A.G.</i>	<i>Inequivalence between active gravitational mass and energy of a composite quantum body</i>
12.45-13.10	<i>Patra R.N.</i>	<i>Anisotropic Tilted Spherical False Vacuum Model</i>
Время	ФИО докладчика	Название доклада
14.00-14.15	<i>Burinskii A.</i>	<i>Magic of the Kerr spinning gravity: unification of gravity with particle physics</i>
14.15-14.30	<i>Bezerra V. B.</i>	<i>Some remarks on topological aspects of Relativity Theory</i>
14.30-14.45	<i>Meierovich B.E.</i>	<i>Black hole and dark matter. Phase equilibrium.</i>
14.45-15.00	<i>Vladimirov Yu.S.</i>	<i>Physical interactions in three metaphysical paradigms</i>

15.00-15.15	<i>Garat A.</i>	<i>Dynamical symmetry breaking in geometrodynamics</i>
15.15-15.30	<i>Akpojotor G., Animalu A., Edeagu S., Trell E.</i>	<i>Generalized Lie Algebraic Geometry in $R^3 \times SO(3)$ Configuration Space for $SU(3)$ of Elementary Particles and for Wave-packing of Atomic Structure</i>
15.30-15.45	<i>Zloshchastiev K.G.</i>	<i>Logarithmic superfluid theory of physical vacuum</i>
16.00-16.15	<i>Bleybel A.</i>	<i>On the conformal group of globally hyperbolic spacetimes</i>
16.15-16.30	<i>Tsipenyuk D.Yu., Andreev V.A.</i>	<i>Approach to the gauge theories for massive fields in the extended space model</i>
16.30-16.45	<i>Ibeh G., Akpojotor G., Trell E., Animalu A.</i>	<i>Reformulation of the $O(4,2) \times SU(3) \times U(1)$ Gauge Theory of Quantum Gravity using the Generic Torus as Oyibo GUT Geometrical Object</i>
16.45-17.00	<i>Monakhov V.V.</i>	<i>Vacuum and space-time signature in the theory of superalgebraic spinors.</i>
17.00-17.15	<i>Petrova L.I.</i>	<i>Formatting physical fields and pseudometric manifolds. The dark matter.</i>
17.15-17.30	<i>Brandyshev P.E.</i>	<i>Higgs boson and Dark energy in conformal supergravity</i>
17.30-17.45	<i>Il'ichov L.V.</i>	<i>Category forms of Non-Signalling and Local Causality and their duals</i>
17.45-18.00	<i>Vizgin V.P.</i>	<i>The Noether's theorems and the Foundations of Physics</i>
10.15-10.40	<i>Shishanin A.O.</i>	<i>LCFT and Liouville theory</i>
13.10-14.00	<i>Yurasov N. I.</i>	<i>On the nature of a particle spin in the standard model</i>
15.45-16.00	<i>Abdullin S.R.</i>	<i>Field Theory as Oscillator System</i>
Стендовые доклады	<i>Koryukin V.M., Koryukin A.V., Kostromina E.V.</i>	<i>On the metrizable of the affine connectivity space and the unified theory of fundamental interactions</i>

Название секции: *Астрофизика высоких энергий*

Краткое описание секции: *В данной секции обсуждаются модели релятивистских астрофизических объектов: нейтронные звезды, черные дыры, кротовые норы, аккреционные диски.*

Дата: 05.07.2019

Время	ФИО докладчика	Название доклада
9.00-9.25	<i>Das S.</i>	<i>A new embedding class one type anisotropic compact stellar model using Karmakar Condition in General Relativity</i>
9.25-9.50	<i>Sahoo P. K.</i>	<i>The redshift function of traversable wormholes in $f(R;T)$ gravity</i>
9.50-10.15	<i>Krylova N.G., Grushevskaya H.V.</i>	<i>Domain growth in a cosmology phase transition model with axially symmetric metrics</i>
10.40-11.05	<i>Postnov K.</i>	<i>Astrophysical channels of formation of double merging black holes</i>
11.05-11.30	<i>Bisikalo</i>	<i>To be announced</i>

11.30-11.55	<i>Zubair M., Zeeshan M.</i>	<i>Evolution of Collisional Matter in Modified Teleparallel Theories</i>
11.55-12.20	<i>Kamalov T.F.</i>	<i>Instability States and Uncertainty Relation</i>
12.20-12.45	<i>Babourova O.V., Khetzeva M.S., Markova N.V., Frolov B.N.</i>	<i>Nonmetricity plane waves in post Riemannian spacetime</i>
12.45-13.10	<i>Levin S.F.</i>	<i>Cosmological Distance Scale: The Scale Factor</i>
Время	ФИО докладчика	Название доклада
14.00-14.15	<i>Dokuchaev V.I., Nazarova N.O., Smirnov V.P.</i>	<i>Silhouette of the black hole event horizon</i>
14.15-14.30	<i>Trell E.</i>	<i>A Space-Frame Periodic Table Representation System Testing Relativity in Nucleosynthesis of the Elements</i>
14.30-14.45	<i>Lukin V.V., Chechetkin V.M., Galanin M.P.</i>	<i>Binary stars light curves interpretation using 3D hydrodynamical simulation</i>
14.45-15.00	<i>Ahmad S.</i>	<i>Stability of anisotropic self-gravitating fluids</i>
15.00-15.15	<i>Patrushev A.</i>	<i>Entanglement entropy in strongly correlated systems dual to anisotropic gravitational models</i>
15.15-15.30	<i>Petrov A.N., Guillemainot P., Olea R.</i>	<i>On properties of constant curvature black holes in the Einstein-AdS gravity</i>
15.30-15.45	<i>Hendi S. H.</i>	<i>Critical behavior of black holes in massive gravity</i>
16.00-16.15	<i>Silagadze Z.K., Maziashvili M.</i>	<i>Non-local imprints of gravity on quantum theory</i>
16.15-16.30	<i>Grunskaya L.V., Isakevich V.V., Isakevich D.V.</i>	<i>The signs of relativistic binary star systems' influence on the Earth's electric field</i>
16.30-16.45	<i>Grushevskaya H.V., Krylova N.G.</i>	<i>Phase Transitions in Geometrothermodynamic Model of Charged generalized-NUT Black Holes</i>
16.45-17.00	<i>Eroshenko Yu.N., Berezin V.A., Dokuchaev V.I.</i>	<i>Global geometry of the Vaidya spacetime</i>
17.00-17.15	<i>Kalita S.</i>	<i>Modified gravity to unify sub- and super-Chandrasekhar limiting mass white dwarfs</i>
17.15-17.30	<i>Avramenko A.E.</i>	<i>Space-Time: from Indefinite at Locality to Generality at Infinite</i>
17.30-17.45	<i>Mordvinov B.</i>	<i>Large Dirac numbers and a new cosmological model</i>
17.45-18.00	<i>Yurasov N.I., Yurasova I.I.</i>	<i>On the temperature distribution in a black hole.</i>
10.15-10.40	<i>Kirillov A., Savelova E.</i>	<i>Wormhole as a possible accelerator of high-energy cosmic-ray particles</i>
13.10-14.00	<i>Azmat</i>	<i>Stability Analysis of Stellar Configurations in Modified Gravity</i>
15.45-16.00	<i>Ahmed</i>	<i>Black Hole Chemistry</i>
Стендовые доклады	<i>Kauts V.</i>	<i>Positronium formation in the Galaxy.</i>