



Program
of the V International Meeting
“Finsler Extensions of Relativity Theory”
27 September – 3 October 2009
Moscow - Fryazino, Russia

BAUMAN MOSCOW STATE TECHNICAL UNIVERSITY
RESEARCH INSTITUTE OF HYPERCOMPLEX SYSTEMS IN GEOMETRY AND PHYSICS

Sunday, 27th September 2009, Educational Center “Forest Lake” in Fryazino, Moscow region

- 14-00** Departure from the **Beta hotel** of the Tourist Complex “Izmailovo” (the underground station **Partizanskaya**) by bus to the Educational Center “Forest Lake”
- 15-30 – 16-30** Time for communications
- 16-30 – 18-00** A new documentary on Finsler geometry “Anisotropic world” (in English and Russian)
- 18-00 – 20-00** Party
- 20-00** Departure from the Educational Center “Forest Lake” to the underground station **Partizanskaya**, Moscow

Monday 28th September 2009. Conference Hall. Study Laboratory Building. Bauman University

- 09-00 – 10-00** Registration of delegates

- Chair:** Gladyshev Vladimir O., Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino; Bauman Moscow State Technical University, Moscow, Russia
- 10-00 – 11-00** Opening the FERT Meeting
- 11-00 – 11-45** **Garas’ko Grigory I.** gri9z@mail.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Russian Institute for Electrotechnics, Moscow, Russia)
The principle of self-efficiency of the Finsler geometry in condensed version.
- 11-45 – 12-30** **Bogoslovski Georgi Yu.** bogoslov@theory.sinp.msu.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Skobeltsyn Nuclear Physics Institute of Lomonosov Moscow State University, Moscow, Russia)
Metric induced on the mass shell imbedded into the Berwald-Moor 4-momentum space.
- 12-30 – 13-15** **Pavlov Dmitri G.** geom2004@mail.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia)
Kokarev Sergei S. logos-center@mail.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia)
Bingles and tringles in H_n .
- 13-15 – 14-15** **Lunch**, all participants picture in the Conference Hall of Bauman University

- Chair:** Panchelyuga Victor A., Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Institute of theoretical and experimental biophysics, Puschino, Moscow region, Russia
- 14-15 – 15-00** **Shen Zhongmin,** zshen@math.iupui.edu (Department of Mathematical Sciences, Indiana University, Purdue University Indianapolis, USA)
Ricci curvature in Finsler Geometry.
- 15-00 – 15-45** **Wong Pit-Mann,** Pit-Mann.Wong.2@nd.edu, pmwong@nd.edu (Department of Mathematics, University of Notre Dame, Notre Dame, Indiana, USA)
Weighted complex Randers metrics.
- 15-45 – 16-15** Coffee break
- 16-15 – 17-00** **Balan Vladimir.** vbalan@mathem.pub.ro, vladimir.balan@upb.ro (University Politehnica of Bucharest, Faculty of Applied Sciences, Department of Mathematics I, Bucharest, Romania)
Notable submanifolds in Berwald-Moor spaces
- 17-00 – 17-45** **Siparov Sergei V.** sergey@siparov.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region; State University of Civil Aviation, Department of Physics, St-Petersburg, Russia)
Classical GRT tests in anisotropic geometrodynamics and their meaning
- 17-45 – 18-15** **Voicu-Brinzei Nicoleta.** nico.brinzei@rdslink.ro, grasza_01@yahoo.com (“Transilvania” University, Brasov, Romania)

New considerations on Einstein equations in anisotropic spaces.

Tuesday, 29th September, Educational Center “Forest Lake” in Fryazino, Moscow region

08-15 Departure from the **Beta hotel** of the Tourist Complex “Izmailovo” (the underground station **Partizanskaya**) to the Educational Center “Forest Lake”

Chair: **Balan Vladimir, University Politehnica of Bucharest, Faculty of Applied Sciences, Department of Mathematics I, Bucharest, Romania.**

10-00 – 10-45 *Eliovich Aleksandr A.* eliovich@mail.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region; Lomonosov Moscow State University, Moscow, Russia*)

On some aspects of applying polynorms on algebras in physics.

10-45 – 11-30 *Malykhin Aleksandr V.* avm020@yandex.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia*)

To be announced

11-30 – 12-00 **Coffee break**

12-00 – 12-45 *Panchelyuga Mariya S., Panchelyuga Victor A.* panvic333@list.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region; Institute of theoretical and experimental biophysics, Puschino, Moscow region, Russia*)

Pavlov Dmitri G. geom2004@mail.ru, (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia*)

About construction of Julia set analogues on the double numbers plane.

12-45 – 13-30 *Perminov Nikolay,* Nikolay.Perminov@ksu.ru (*Division of Relativity Theory and Gravity, Physical Department, Kazan State University, Kazan, Russia*)

Balan Vladimir, vbalan@mathem.pub.ro, vladimir.balan@upb.ro (*University Politehnica of Bucharest, Faculty of Applied Sciences, Department of Mathematics I, Bucharest, Romania*)

Applications of resultants in the spectral m-root framework.

13-30 – 14-30 **Lunch**

Chair: **Shen Zhongmin, Department of Mathematical Sciences, Indiana University, Purdue University Indianapolis, USA**

14-30 – 15-15 *Vladimirov Yuriy S.* yusvlad@rambler.ru (*Faculty of Physics, Moscow State University, Moscow, Russia*)

Finslerian character of electromagnetic and gravitational interactions in the concept of long-range action.

15-15 – 16-00 *Kreinovich Vladik,* vladik@utep.edu (*Department of Computer Science, University of Texas at El Paso, USA*)

Computational Aspects of Physical Models Based on Berwald-Moore-based Finsler Geometry: General Computational Complexity and Specifics of Relativistic Celestial Mechanics Testing

16-00 – 16-30 **Coffee break**

16-30 – 17-15 *Youssef Nabil L.* nlyoussef2003@yahoo.fr , nyoussef@frcu.eun.eg (*Department of Mathematics, Faculty of Science, Cairo University, Giza, Egypt*)

Extended Absolute Parallelism Geometry.

17-15 – 18-00 *Suhendro Indranu,* spherical_symmetry@yahoo.com, wings.of.solitude@gmail.com (*Surya Institute of Mathematics and Physics Education, Tangerang, Indonesia*)

A New Finslerian Unified Field Theory of Physical Interactions

18-15 Departure from the Educational Center “Forest Lake” to the underground station **Partizanskaya**, Moscow

19-30 – 21-00 First presentation of the documentary “Questions on crossroads of worlds” by Andrei Sklyarov (For participants who lives in the Educational Center “Forest Lake”)

Wednesday, 30th September, Educational Center “Forest Lake” in Fryazino, Moscow region

08-15 Departure from the **Beta hotel** of the Tourist Complex “Izmailovo” (the underground station **Partizanskaya**) to the Educational Center “Forest Lake”

- Chair:** Wong Pit-Mann, Department of Mathematics, University of Notre Dame, Notre Dame, Indiana, USA
- 10-00 – 10-45 **Kokarev Sergei S.** logos-center@mail.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia*)
Pavlov Dmitri G. geom2004@mail.ru, (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia*)
Symmetries of bingles and tringles in H_n
- 10-45 – 11-30 **Balan Vladimir,** vbalan@mathem.pub.ro, vladimir.balan@upb.ro (*University Politehnica of Bucharest, Faculty of Applied Sciences, Department of Mathematics I, Bucharest, Romania*)
Lebedev Sergei V. serleb@rambler.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region; Bauman Moscow State Technical University, Moscow, Russia*)
On the Legendre transform and Hamiltonian formalism in Berwald-Moor geometry.
- 11-30 – 12-00 **Coffee break**
- 12-00 – 12-45 **Kosheleva Olga,** olgak@utep.edu (*Department of Teacher Education, University of Texas at El Paso, USA*)
Polynomial (Berwald-Moore) Finsler Metrics and Related Partial Orders Beyond Space-Time: Towards Applications to Logic and Decision Making.
- 12-45 – 13-30 **Solov'yov Anton V.** anton@spin.phys.msu.ru (*Faculty of Physics, Moscow State University, Moscow, Russia*)
Antisymmetric scalar polyproducts and associated Finslerian spaces.
- 13-30 – 14-30 **Lunch**

- Chair:** Eliovich Aleksandr A., Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Lomonosov Moscow State University, Moscow, Russia
- 14-30 – 15-15 **Fil'chenkov Mikhail,** michael@mail.ru (*Institute of Gravitation and Cosmology, Peoples' Friendship University of Russia, Moscow, Russia*)
Garas'ko Georgy, gri9z@mail.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russian Institute for Electrotechnics, Moscow, Russia*)
Pavlov Dmitri, geom2004@mail.ru (*Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia*)
Special class of Finslerian metrics and de Sitter spaces.
- 15-15 – 16-00 **Bulyzhenkov Igor E.** ibw@sci.lebedev.ru (*P.N. Lebedev Physical Institute RAS, Moscow, Russia*)
Finsler metric with anisotropically-dilated time for nonlocal gravitation in Euclidean 3-space.
- 16-00 – 16-30 **Coffee break**
- 16-30 – 17-15 **Koryukin Valeri M.** kvm@marsu.ru (*Mari State University, Ioshkar-Ola, Russia*)
The Feynman formalism of the quantum theory and the Finsler spaces.
- 17-15 – 18-00 **Mornev Oleg A.** 7om2@online.stack.net, mornev@mail.ru, multiverse@rambler.ru (*Institute of Theoretical and Experimental Biophysics, Puschino, Moscow region, Russia*)
Nilpotents, Rotations, and Photons from the Viewpoint of Geometric Clifford Algebra of 3D Space.
- 18-15 Departure from the Educational Center “Forest Lake” to the underground station Partizanskaya, Moscow
- 19-30 – 21-00 First presentation of the documentary “Very, very, very Baalbek” by Andrei Sklyarov (For participants who lives in the Educational Center “Forest Lake”)

Thursday, 1st October, Educational Center “Forest Lake” in Fryazino, Moscow region

- 08-15 Departure from the Beta hotel of the Tourist Complex “Izmailovo” (the underground station Partizanskaya) to the Educational Center “Forest Lake”

- Chair:** Vargashkin V.Ya., Oryol State Technical University, Department of Physics, Oryol, Russia
- 10-00 – 10-45 **Sanchez Arturo,** sancheza@lfnhep.in2p3.fr, arturos@ula.ve (*Universidad de Los Andes, Facultad de Ciencias, Merida, Venezuela*)
The No Locality in the Modern Physics.

- 10-45 – 11-30 *Sadeghzadeh Nasrin*, nasrin_sadeghzadeh@yahoo.com (Department of Mathematics, University of Qom, Iran)
Ricci flow and mean Landsberg Spaces.
- 11-30 – 12-15 *Mo Xiaohuan*, moxh@pku.edu.cn (School of Mathematical Science, Peking University, Beijing, China)
On some explicit constructions of Finsler metrics with scalar flag curvature.
- 12-15 – 19-00 The excursion in the center of Moscow (**Cathedral of Christ the Saviour, Tretyakovskaya Gallery**). Also departure from the Educational Center “Forest Lake” to the **underground station Partizanskaya**, Moscow
- 19-30 – 21-00 First presentation of the documentary “Persian etalon” by Andrei Sklyarov (For participants who lives in the Educational Center “Forest Lake”)

Friday, 2nd October, Educational Center “Forest Lake” in Fryazino, Moscow region

08-15 Departure from the **Beta hotel** of the Tourist Complex “Izmailovo” (the underground station **Partizanskaya**) to the Educational Center “Forest Lake”

Chair: **Mo Xiaohuan, School of Mathematical Science, Peking University, Beijing, China**

10-00 – 10-45 *Levin S.F.* info@rostest.ru, antoninaEL@rostest.ru (Moscow Institute for expertise and tests, Moscow, Russia)

The large-scale of angular and spatial anisotropy of red shift for radio galaxies and quasars.

10-45 – 11-30 *Gladyshev Vladimir O.* vgladyshev@mail.ru, *Leontiev Andrei D.* ldron@ya.ru, *Tiunov Pavel S.* c00l@list.ru, *Sharandin Yeugeni A.* shar@bmstu.ru
 (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia; Bauman Moscow State Technical University, Moscow, Russia)

Towards new experiments of anisotropy detecting.

11-30 – 12-00 **Coffee break**

12-00 – 12-45 *Ivashchuk Vladimir D.* ivashchuk@mail.ru (Center for Gravitation and Fundamental Metrology, VNIIMS, Moscow, Russia)

On multidimensional solutions of cosmological-type governed by Finslerian 4-metrics.

12-45 – 13-30 *Silagadze Zurab*, silagadze@inp.nsk.su (Budker Institute of Nuclear Physics, Novosibirsk, Russia)

Thomas rotation and Mocanu paradox -- not at all paradoxical.

13-30 – 14-30 **Lunch**

Chair: **Voicu-Brinzei Nicoleta, “Transilvania” University, Brasov, Romania**

14-30 – 15-15 *Lebedev Sergei V.* serleb@rambler.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region; Bauman Moscow State Technical University, Moscow, Russia)

Garas'ko Georgy, gri9z@mail.ru (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russian Institute for Electrotechnics, Moscow, Russia)

Pavlov Dmitri G. geom2004@mail.ru, (Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Russia)

The background radiation anisotropy and the 4d Finsler space with Berwald-Moore metrics.

15-15 – 16-00 *Zhotikov Vadim*, Zhotikov@yandex.ru (General Physics Department, Moscow Institute of Physics and Technology, Moscow Region, Dolgoprudny, Russia)

Wagner's generalized groups and their applications in physics and geometry.

16-00 – 16-30 **Coffee break**

16-30 – 17-15 *Galaev Sergei V.* sgalaev@mail.ru (Saratov State University named after N.G. Chernyshevsky)
To the geometry of a Finsler space with a Berwald-Moore metric coordinated with a poly-affine structure.

17-15 – 18-00 *Bukusheva Aliya V.* bukusheva@list.ru (Saratov State University named after N.G. Chernyshevsky)

Geometric properties of the indicatrix of the metric of Berwald-Moor.

18-15 Departure from the Educational Center “Forest Lake” to the underground station Partizanskaya, Moscow

Saturday, 3rd October, Educational Center “Forest Lake” in Fryazino, Moscow region

08-15 Departure from the **Beta hotel** of the Tourist Complex “Izmailovo” (the underground station Partizanskaya) to the Educational Center “Forest Lake”

Chair: Lebedev Sergei V., Research Institute Hypercomplex Systems in Geometry and Physics, Fryazino, Moscow region, Bauman Moscow State Technical University, Moscow, Russia

10-00 – 10-45 *Fil'chenkov Mikhail*, fmichael@mail.ru, (Institute of Gravitation and Cosmology. Peoples' Friendship University of Russia, Moscow, Russia)

Laptev Yuri, yplaptev@rambler.ru (Bauman Moscow State Technical University, Moscow, Russia)

On the relation between anisotropic Riemannian metrics and Finslerian ones.

10-45 – 11-30 *Turbin Anatoli*, turbin@imath.kiev.ua (Institute of mathematics of National Academy of sciences of Ukraine, Kiev)

Zhdanova Yuliya, yuzhdanova@yandex.ru (State university of informatively-communication technologies, Kiev)

Decision of problem of contact number in E^n , $n \geq 3$.

11-30 – 12-00 Coffee break

12-00 – 12-45 *Petoukhov Sergey*, petoukhov@hotmail.com (Mechanical Engineering Research Institute of the Russian Academy of Sciences)

Matrix genetics, theory of coding and multi-dimensional algebras of genetic operators

12-45 – 13-30 *Filinov Vladimir A.* filinov@bk.ru (The Tver State Technical University, Tver, Moscow region, Russia)

Hypercomplex a method of account of sine not wave currents.

13-30 – 14-30 Lunch

Chair: Laptev Yuri, Bauman Moscow State Technical University, Moscow, Russia

14-30 – 15-15 *Hamza Rawash Abubakr*, omarroash225@hotmail.com (Cairo University, Giza, Egypt)

Finsler geometry (Berwald-Moor metric) explains spinning of planets.

15-15 – 16-00 *Vargashkin Vladimir Ya.* varg@ostu.ru (Department of Physics of Oryol State Technical University, Oryol, Russia)

The method of recovery of quasipotential field forming visible flux of quasars over the celestial sphere, based on the results of random measurements of field gradient.

16-00 – 21-00 Closing the meeting, banquet

21-00 Departure from the Educational Center “Forest Lake” to the underground station Partizanskaya, Moscow