

Al-Farabi Kazakh National University  
Institute of Experimental and Theoretical Physics  
Kazakh Physical Society  
National Academy of Sciences of the Republic of Kazakhstan  
Asia-Pacific Center for Theoretical Physics

**PROGRAM**

of the International Conference “Abdildin readings: ACTUAL  
PROBLEMS OF MODERN PHYSICS”

April 12-15, 2018

Al-Farabi Kazakh National University, Almaty, Kazakhstan

International Conference “ACTUAL PROBLEMS OF MODERN PHYSICS” (Abdildin readings) will take place at Al-Farabi Kazakh National University in Almaty, Kazakhstan, Faculty of Physics and Technology on April 12 - 15, 2018.

First International conference “Abdildin readings” was organized in 2013 and was devoted to 75-th anniversary of academician Meirkhan Abdildin. This year 2018 we celebrate his 80-th anniversary. In the future, National Academy of Sciences (NAS) of RK, Kazakhstani Physical Society (KPS), Al-Farabi KazNU and IETP are planning to organize Abdildin readings every 2 and 3 years. Topics of the conference cover main fields of modern physics, including Theoretical physics, Nuclear and Particle physics, Astrophysics and Cosmology, Cosmic rays physics, Plasma physics, Condensed matter physics, Thermal physics, Biophysics, Medical physics, Methodical and Philosophic problems of physics.

The main goal of the conference is to promote cooperation among the Central Asia and key partner countries of the region and to coordinate high-level studies on hot topics of physics within the international context, and to encourage fruitful collaboration among active researchers and gifted representatives of younger generation.

## ORGANISING COMMITTEE

Chairman: Mutanov G.M.

Co-chairmen: Zhurinov M.Zh., Kozhamkulov T.A.

Chief Secretaries: Belissarova F.B., Zhaugasheva S.A.

Members of the Organizing Committee: Abdildin Zh.M, Baygarin K.A., Omarov Ch.T., Batyrbekov E.G., Skakov M.K., Ramazanov T.S., Gabdullin M.T., Kumekov S.E., Sakhiev S.K., Bibossinov A.Zh., Somsikov V.M., Sadykov T.Kh., Kuketayev T.A., Aryngazin A.K., Utegulov Zh., Myrzakulov R.K., Burtebayev N.T., Takibaev N.Zh., Desyatnikov A., Tikhonov A., Aliyev B.A., Kosov N.D., Chechin L.M., Davletov A.E., Abishev M.E., Vladimirov Yu.S., (Russia), Denisov V.I. (Russia), Ivashchuk V.D. (Russia), Akhmedov B.D. (Uzbekistan), Dzhunushaliev V.D. (Kyrgyzstan), Quevedo H. (Mexico), Ruffini R. (Italy), Piragas K.A. (Lithuania), Yong Min Cho (Korea), Kato K. (Japan).

## PROGRAM COMMITTEE

Chairman: Ramazanov T.S.

Deputy chairmen: Abishev M.E., Lavrishev O.A., Muratov M.M.

Members of the Committee: Askarova A.S., Arkhipov Yu.V., Bolegenova S.A., Burkova N.A., Drobyshev A.S., Zhanabayev Z.Zh., Zhusupov M.A., Ibraimov M.U., Nurbakova G.S., Aldiyarov A., Aitkozhaev A.G., Beissen N.A., Bekbaev A.K., Brisheva Zh.N., Dzhumagulova K.N., Imambekov O.I., Imanbaeva A.K., Komarov A.A., Saduev N.O., Toktarbay S., Yushkov A.V.

Secretaries: Abylaeva A., Talhat A., Orazimbet A.

## Venue and Schedule of the Conference

Opening of the conference and plenary reports will be held on April 12 at 10-00 in the Lecture Hall named after Academician M.M. Abdildin at the address al-Farabi Ave, 71, KazNU campus, Physics and Technology Faculty.

The opening of the commemorative plaque will take place at 12-30 at the house where M.M. Abdildin lived at Shashkin Street, 36 a.

On April 12, 2018 at 17:00 in the conference hall of the Faculty of Physics and Technology (330 r.) a General Assembly of Kazakh Physical Society will be held.

Address: 050040, Kazakhstan, Almaty, Al-Farabi Av. 71, Al-Farabi Kazakh National University, Faculty of Physics and Technology

Phones : office +7 727 3773414 , mobile +7 707 3970921

Fax: +7 727 3773400

E-mail: abishevme@gmail.com

Web-site: <http://kazps.kz/conferences.php>

## Sections:

**Philosophical Problems of Physics and Physical Education**

**Astrophysics, Astronomy, Space Physics**

**Theoretical Physics, Nuclear Physics and Elementary Particle Physics**

**Nanotechnology, Materials Science, Condensed Matter Physics and Nonlinear Physics**

**Physics of plasma, Physics of liquids and gases, Thermophysics and Computer physics**

**Medical Physics, Nuclear Medicine and Biophysics**

## April 12, 2018

08:30 – 10:00 Registration (Abdildin Hall Lec 2, Phys.-Tech. faculty)

10:00 – 10:55 Opening Ceremony (Abdildin Hall Lec 2, Phys.-Tech. faculty)

**Kozhamkulov T.** (moderator) Opening Address

**Ramazanov T.** Welcoming Address

**Abdildin Zh.** Welcoming Address

**Kalimoldayev M.** Welcoming Address

**Ruffini R.** Welcoming Address

**Yongmin Cho** Welcoming Address

**Quevedo H.** Welcoming Address

**Kato K.** Welcoming Address

**Suzuki A.** Welcoming Address

**Omarov Ch.** Welcoming Address

11:00 – 12:00 Plenary talks (Abdildin Hall Lec 2, Phys.-Tech. faculty) Moderator

**Abishev M.**

11:00 – 11:20 **Chechin L.M.** SPIN AND ROTATION IN MODERN COSMOLOGY

11:20 – 11:40 **Abdildin Zh.M., Abdildina R.Zh.** DIALECTICAL LOGIC AND LOGIC OF CONSTRUCTION OF MODERN PHYSICAL THEORY

11:40 – 12:00 **Quevedo H.** ABDILDIN'S FORMALISM FOR RELATIVISTIC COMPACT OBJECTS

12:30 – 13:00 The opening of the M.Abdildin's commemorative plaque (address: Shashkin St. 36 a)

Banquet 13:30 (Versailles restaurant, Timiryazev st. 32)

## April 13, 2018

9:00 – 11:00 Plenary talks (Red hall, KazNU Mech-Mat Dzohldasbekov aud)

Moderator **Sung Won Kim.**

9:00 – 9:30 **Cho Y. M.** COSMOLOGICAL IMPLICATIONS OF ELECTROWEAK MONOPOLE

9:30 – 10:00 **Dzhunushaliev V.D.** QUANTUM FLUCTUATIONS IN QGF

10:00 – 10:30 **Mandilara A. Zhiyenbayev Y. and Akulin V.M.** QUANTUM COMPILING WITH DIFFUSIVE SETS OF GATES

10:30 – 11:00 Coffee-break

11:00 – 12:30 Plenary talks (Red hall, KazNU Mech-Mat Dzhohldasbekov aud) Moderator **Yong Min Cho.**

11:00 – 11:30 **Ahmedov B.J.** OPTICAL PROPERTIES AND SHADOW OF AXIALLY SYMMETRIC BLACK HOLES

11:30 – 11:50 **Kuratov K.S.** A POWERFUL BLAZAR FLASH “CTA 102”

11:50 – 12:10 **Takibayev N.** PECULIARITIES OF NEUTRINO GENERATION IN NEUTRON STAR ENVELOPES

12:10 – 12:30 **Kim S.W.** COSMOLOGICAL HORIZONS AND PARTICLE HORIZONS OF WORMHOLE COSMOLOGY

12:30-14:00 Lunch

14:00-16:00 Section Reports

**Astrophysics, Astronomy, Space Physics:** (Phys-Tech faculty, Conference hall 330) Moderator **Dzhunushaliev V.**

14:00-14:20 **Zhami B.A., Boshkayev K.A., Kalymova Zh.A., Brisheva Zh.N., Balgimbekov G.Sh.** STATIC COLD EQUILIBRIUM WHITE DWARF RELATIVISTIC STARS WITH KNOWN NUCLEAR COMPOSITIONS

14:20-14:30 **Mansurova A., Beissen N.A.** STUDIES OF PHYSICAL PROPERTIES OF NEUTRON STARS

14:30-14:50 **Akniyazov Ch., Serebryanskiy A.** THE DEGRADATION AND LIFETIME ESTIMATION FOR THE GEO SATELLITES BY ITS PHOTOMETRIC OBSERVATIONS

14:50-15:10 **Tadjimuratov P.S.** ANISOTROPY IN ELECTROMAGNETIC RADIATION OF BINARY NEUTRON STAR SYSTEM

15:10-15:20 **Toshmatov B.** ELECTROMAGNETIC PERTURBATIONS OF MAGNETICALLY CHARGED BLACK HOLES IN GENERAL RELATIVITY COUPLED TO NONLINEAR ELECTRODYNAMICS

15:20-15:40 **Turimov B.V.** GRAVITATIONAL LENSING BY A MAGNETIZED COMPACT OBJECT IN THE PRESENCE OF PLASMA

15:40-16:00 **Shinibayev M.D., Bekov A.A., Astemesova K.S., Momynov S.B.** TRANSLATIONAL AND ROTATIONAL MOTION OF A SATELLITE IN THE STATIONARY GRAVITATIONAL FIELD OF HILL

**Theoretical Physics, Nuclear Physics and Elementary Particle Physics:** (Phys-Tech faculty, aud. 304) Moderator **Burtebayev N.**

14:00-14:20 **Burtebayev N., Dzhanseitov D.M., Kerimkulov J., Alimov D.K., Mukhamedzhanov E.S., Nurtazin E.R.** INVESTIGATION OF THE INTERACTION OF DETRONS WITH  $^{13}\text{C}$  NUCLEI

14:20-14:40 **Burtebayev N., Nasurlla M., Kerimkulov Zh.K., Alimov D.K., Sakuta S.B., Mukhamedzhanov E., Nasurbla Marzhan, Burtebayeva DT, Khodzhaev RA, Sabidolda A.** ANALYSIS OF THE DEUTRON SCATTERING WITH ENERGY 14.5 MEV ON  $^7\text{Li}$  NUCLEI BY THE METHOD OF RELATED CHANNELS

14:40-14:50 **Valiolda D.S., Zhaugasheva S.A., Dzhanseitov D.M.** THE STUDY OF THE INFLUENCE OF MAGNETIC FIELD ON THE COLLAPSE OF THE HALO OF THE NUCLEUS

14:50-15:00 **Dzhanseitov D.M., Burtebayev N., Kerimkulov Zh.** STUDY OF CLUSTER STATES IN LIGHT NUCLEI

15:00-15:20 **Dyachkov V.V., Zaripova Yu.A., Yushkov A.V.** THE EXPERIMENTAL BASIS OF NEW NUCLEAR PHYSICS IN NON-EUCLIDEAN SPACES

15:20-15:30 **Zhaugasheva S.A., Saidullaeva G.G., Imagalieva A.I., Aitzhan F.K., Aznabayev M.S., Kabrasil J.** THE DETERMINATION OF THE SPLITTING OF THE 2P-2S ENERGY LEVEL OF MUON HYDROGEN TAKING INTO ACCOUNT RELATIVISTIC NATURE OF INTERACTION

15:30-15:40 **Kalzhitov N.K., Vasilevsky V.S., Takibaev N.Zh., Kurmangaliyeva V.O.** POTENTIALS OF NUCLEON-NUCLEON INTERACTION IN THE REACTION OF ELASTIC COLLISION OF TWO ALPHA PARTICLES

15:40-15:10 **Mukhametuly B., Kichanov S.E., Lukin E.V., Shaimerdenov A.A., Nazarov K., Kenesarin M., Mukhamet L.** MODERN INSTALLATION FOR NEUTRON RADIOGRAPHY AND TOMOGRAPHY FOR APPLIED RESEARCH ON THE BASE OF THE VVR-K REACTOR

15:10-15:20 **Myrzabekova E.B., Burov V.V.** ELECTROSPLITTING OF DEUTRON IN THE APPROACH OF BETHE-SALPETER

15:20-15:30 **Nurbakova G.S., Kulikov G.G., Kozhakhmet B.K.** IMPROVEMENT OF NEUTRON-PHYSICAL CHARACTERISTICS OF FAST REACTOR BY USING  $^{208}\text{Pb}$  REFLECTOR

15:30-15:40 **Nurbakova G.S., Tulemisov Zh.Zh., Khabyl N., Kuanysh A.** DETERMINATION OF THE MASS OPERATOR  $\Delta$  – ISOBARS WITHIN THE FRAMEWORK OF THE COVARIANT QUARK MODEL

15:40-15:50 **Nurbakova G.S., Khabyl N., Issadykov A.N., Tyulemisov Zh. Zh., Rustembayeva S.B.** SEMILEPTONIC DECAY OF HEAVY BARYONS

15:50-16:00 **Sagimbayeva N.B., Burov V.V.** HADRON AND QUARK FORM FACTORS IN THE RELATIVISTIC HARMONIC OSCILLATOR MODEL

**Philosophical Problems of Physics and Physical Education:** (Phys-Tech faculty, aud. 305) Moderator **Kussainov A.**

14:00-14:20 **Somsikov V.M.** HOW TO BUILD MECHANICS OF SYSTEMS FROM THE MECHANICS OF THEIR ELEMENTS

14:20-14:30 **Nurbakova G.S., Myrzabay B.E.** ELECTRONIC COURSE DEVELOPMENT “A PRACTICE FOR SOLVING PHYSICAL PROBLEMS”

14:30-14:40 **Nurbakova G.S., Ramazanova A.S.** DEVELOPMENT OF INTERACTIVE EDUCATIONAL MATERIALS FOR REMOTE LEARNING OF THE COURSE “PHYSICS OF ELEMENTARY PARTICLES”

14:40-14:50 **Nurbakova G.S., Kurmanzhan D., Amiruly D.** MODERN OPPORTUNITIES OF IMPLEMENTATION OF PHYSICAL EXPERIMENTS

14:50-15:00 **Nurgalieva M.N., Kurmangaliyeva V.O.** ON THE DEVELOPMENT OF THE ELECTRONIC TEXTBOOKS ON NUCLEAR ASTROPHYSICS

15:00-15:20 **Ramankulov Sh., Dosymov E., Madaliev Sh.** COMPUTER DEMONSTRATION EXPERIMENTS ON PHYSICS AND THE METHODOLOGY OF THEIR IMPLEMENTATION AT SCHOOL

15:20-15:40 **Sabit M.** PHILOSOPHY AND PHYSICS IN THE CREATIVITY OF ACADEMICIANS Zh. AND M. ABDILDINS

15:40-16:00 **Murzagalieva A.G.** GENERATION OF KNOWLEDGE AS A FACTOR OF INNOVATIVE DEVELOPMENT OF THE ECONOMICS OF COUNTRY

16:00 – 16:30 Coffee-break

16:30-18.30 Section Reports

**Astrophysics, Astronomy, Space Physics:** (Phys-Tech faculty, Conference hall 330) Moderator **Toktarbay S.**

16:30-16:40 **Kayratkyzy D.** INVESTIGATION OF INFLUENCE OF PRIMARY BARYONIC MATTER IN THE FORM OF COSMIC PLASMA ON THE EVOLUTION OF PERTURBATIONS IN DARK MATTER

16:40-16:50 **Strelkova A.V., Meirbekov B.** NOETHER SYMMETRY IN  $F(T)$  GRAVITY WITH  $F$ -ESSENCE

16:50-17:00 **Zinatova A.K., Idrisov K.K., Meirbekov B.K.** ON SOME COSMOLOGICAL MODEL OF A FLAT UNIVERSE WITH YANG-MILLS FIELDS

17:00-17:10 **Merali N.A., Meirbekov B.** SOLUTION OF DE SITTERS IN  $F(T, B)$  GRAVITY

17:10-17:20 **Abishev M.E., Toktarbay S., Talhat A.Z., Abylayeva A.Zh.** STUDY OF THE MOTION IN GENERAL RELATIVITY BY ADIABATIC THEORY

17:20-17:30 **Aimuratov Y.** GIGAELECTRONVOLT PHOTONS FROM GAMMA-RAY BURSTS

17:30-17:40 **Kalambay M.T.** NUMERICAL MODELING OF ACTIVE NUCLEI OF GALAXIES WITH A ROTATING CENTRAL STAR CLUSTER

17:40-17:50 **Kalymova Zh.A., Boshkayev K.A., Brisheva Zh.N., Zhami B.A.** INVESTIGATION OF A TEST PARTICLE MOTION IN THE EQUATORIAL PLANE OF THE AXIALLY SYMMETRIC GRAVITATIONAL FIELD IN TERMS OF THE ADIABATIC THEORY

17:50-18:10 **Komarov A.A.** EQUATIONS OF THE TRANSLATIONAL MOTION OF THE TWO BODY PROBLEM IN THE MECHANICS OF GR TAKING INTO ACCOUNT THE TIDAL INTERACTION

18:10-18:20 **Dzhunushaliev V.D., Nurtayeva G.K., Protsenko N., Idrisov A.** BRANE SOLUTIONS IN MODIFIED  $F(R)$  GRAVITIES

18:20-18:30 **Toktarbay S., Quevedo H., Abishev M.E., Belisarova F.B.** AN AXISYMMETRIC SOLUTION OF EINSTEIN'S EQUATIONS WITH QUADRUPOLE MOMENT

**Theoretical Physics, Nuclear Physics and Elementary Particle Physics:** (Phys-Tech faculty, aud. 304) Moderator **Yushkov A.**

16:30-16:50 **Serikpaeva A., Sarsembayeva A., Odsuren M., Sarsembay A.** NEW EXFOR EDITOR FOR NUCLEAR DATA COMPILATION

16:50-17:00 **Takibaev N.Zh., Akzhigitova E.M., Kurmangaliyeva V.O., Tolenova A.U.** MUONIC REACTIONS IN NEUTRON STARS

17:00-17:10 **Tohanov M., Nassurlla M., Tofhanov B.M., Nassurlla M., Burtebayev N.** THE TECHNOLOGY OF PRE-TREATMENT OF SEED WITH ELECTROMAGNETIC WAVES OF LOW FREQUENCY TO ENHANCE CROP YIELD

17:10-17:20 **Yushkov A.V., Dyachkov V.V., Zaripova Yu.A., Sidorov Ya.V.** TOPOLOGICAL TYPOLOGY OF NUCLEI

17:20-17:30 **Fedosimova A.I., Dmitrieva E.A., Lebedev I.A., Temiraliev A.T.** THE FLUCTUATIONS OF THE INITIAL CONDITIONS OF NUCLEAR-NUCLEAR INTERACTION AND THEIR INFLUENCE ON THE DISTRIBUTION OF SECONDARY PARTICLES

17:30-17:40 **Dyachkov V.V., Ahmetzhanova M.M.** INVESTIGATION OF NUCLEAR MULTICLUSTERS OF  $^{40}\text{Ca}$  NUCLEI IN ANGULAR DISTRIBUTIONS OF DIFFRACTIVE ELASTIC SCATTERING OF ALPHA-PARTICLES

17:40-17:50 **Baktybaev K., Kanatayeva S.** INVESTIGATION OF THE PROPERTIES OF AVERAGE ATOMIC WEIGHT NUCLEI IN THE MODEL OF INTERACTING BOSONS

17:50-18:00 **Baktybaev K., Meirambekuly E.** INVESTIGATION OF THE PROPERTIES OF AVERAGE ATOMIC WEIGHT NUCLEI IN THE MODEL OF INTERACTING BOSONS

18:00-18:10 **Kurmanaliev Z.H., Kunsafina A.G., Cirkov D.A., Komarov V.I.** STUDY OF THE ABC EFFECT IN THE REACTION  $pd \rightarrow pd\pi\pi$  WITH EXCITATION OF  $d^*(2380)$  RESONANCE

18:10-18:20 **Kunsafina A.G., Kurmanaliev ZH., Baimurzinova B.S., Cirkov D.A.** ANALYZING ABILITY OF THE INVERSE PHOTOSPLITTING IN INTERMEDIATE ENERGIES

18:20-18:30 **Ahmetzhanova M.M., Dyachkov V.V.** INVESTIGATION OF NUCLEAR MULTICLUSTERS OF  $^{40}\text{Ca}$  NUCLEI IN ANGULAR DISTRIBUTIONS OF DIFFRACTIVE ELASTIC SCATTERING OF ALPHA-PARTICLES

18:30-18:40 **Myrzakul S.** APPLICATION OF NOTHER SYMMETRY OF COSMOLOGY WITH F-ESSENCE

**Medical Physics, Nuclear Medicine and Biophysics:** (Phys-Tech faculty, 305 aud.) Moderator **Tuleukhanov S.**

16:00-16:20 **Kusainov A.S.** RESEARCH PROGRAM COMPLEX FOR COMPUTER TOMOGRAPHY AND MAMMOGRAPHY

16:20-16:40 **Tuleukhanov S.T., Ablaykhanova N.T.** ANALYSIS OF THE CHRONOSTRUCTURAL PARAMETERS OF THE DAILY DYNAMICS OF THE OPTICAL PROPERTIES OF BIOOBJECTS IN NORM AND UNDER STRESS

16:40-17:00 **Kupchishish A.I., Tronin B.A., Shakhanov K.** INVESTIGATION OF THE DEPTH DISTRIBUTION OF THE INTENSITY OF THE ELECTRON BEAM IN THE BODY OF THE PROCESSED MEDICAL PRODUCTS

17:00-17:20 **Abishev M.E.** SOME MEDICAL ISSUE OF NONLINEAR MAGNETIC MEDIA (MAGNET KNIFE)

17:20-17:40 **Abdikali Zh.N.** THERAPEUTIC METHODS OF NUCLEAR MEDICINE: COMPARISON OF METHODS OF VERIFICATION OF VARIOUS IRRADIATION PLANS

17:40-18:00 **Abdikali Zh.N.** INVESTIGATION OF THE DEPENDENCE OF DOSE DISTRIBUTIONS ON VARIOUS ORGANS WITH THE TRUEBEAM APPARATUS

**Philosophical Problems of Physics and Physical Education:** (Phys-Tech faculty, aud. 305) Moderator **Kussainov A.**

16:30-16:50 **Mukiat S., Sarmasayev M.T.** METHODOICAL APPROACH TO TEACHING AND INTERPRETING FUNCTIONS OF BOSE-EINSTEIN, FERMI-DIRAC DISTRIBUTION

16:50-17:10 **Abduhairova A.T., Kupchishin A.I.** ACTIVATION OF RMS THROUGH INFORMATION TECHNOLOGIES USING THE EXAMPLE OF AN ELECTRONIC TEXTBOOK ON RADIATION PROCESSES

**April 14, 2018**

9:00 – 10:30 Plenary talks (Red hall, KazNU Mech-Mat Dzohldasbekov aud.)  
Moderator **Quevedo H.**

9:30 – 10:00 **Kato K.** RESONANCE AND NON-HERMITIAN QUANTUM MECHANICS

9:30 – 10:00 **Suzuki A.** CURRENT STATUS OF NUCLEAR PHYSICS WITHIN A MICROSCOPIC FRAMEWORK

10:00 – 10:30 **Abdikamalov E.** NEW INSIGHTS INTO THE EXPLOSION MECHANISM OF MASSIVE STARS

10:30 – 11:00 Coffee-break

11:00 – 12:30 Plenary talks (Red hall, KazNU Mech-Mat Dzohldasbekov aud)  
Moderator **Ahmedov B.**

11:00 – 11:30 **Zhami B.A., Boshkayev K.A., Kalymova Zh.A., Brisheva Zh.N., Balgimbekov G.Sh.** ROTATING WHITE DWARFS AT FINITE TEMPERATURES

11:30 – 12:00 **Abishev M.E., Toktarbay S.** EFFECTS OF NONLINEAR ELECTRODYNAMICS OF VACUUM IN THE MAGNETIC QUADRUPOLE FIELD OF A PULSAR

12:00 – 12:30 **Serebryanski A.V.** THE RESULTS OF OBSERVATIONS OF THE GEOSTATIONARY ZONE BY GROUND-BASED OPTICAL DEVICES AFIF AND FUTURE PLANS

12:30-14:00 Lunch

14:00-16.00 Section Reports

**Nanotechnology, Materials Science, Condensed Matter Physics and Nonlinear Physics:** (Phys-Tech faculty Conference hall 330) Moderator **Kupchishin A.**

14:00-14:10 **Dmitrieva N.D., Ved M.V., Ermolenko I.U., Lunarska E., Yar-Muhamedova G.Sh., Atshibaev R.A.** NANOCOMPOSITION ELECTROLYSTIC COATINGS WITH IMPROVED ANTI-CORROSION PROPERTIES

14:10-14:20 **Sakhnenko N.D, Ved M.V., Ermolenko I.Yu., Lunarska E., Yar-Mukhamedova G.Sh., Atchibaev R.A.** TESTS OF PROTECTIVE PROPERTIES OF 'METALLSPRAY' COATINGS IN AMIN ENVIRONMENTS OF PROCESSING PLANT 'TENGIZ'

14:20-14:30 **Gromovoy Yu.S., Plyatsko S.V, Rashkovetskiy L.V., Kadyshv S., Zakharuk Z.I., Rarenko I.M.** TRANSFORMATION OF PHYSICAL PROPERTIES OF CdTe: Mn SINGLE CRYSTALS UNDER THE ACTION OF LASER IR RADIATION

14:30-14:40 **Tashkeeva G.K., Abdisadykov K.N., Zhorahan Zh.A.** PROPERTIES OF AMORPHOUS C-H SHELLS MODIFIED BY ADDITIVES

14:40-14:50 **Kudusov A.S., Seldiugaev O.B.** MECHANISMS OF TRANSFER OF EXCESSIVE CARRIERS OF CHARGE IN POLYETHYLENE

14:50-15:00 **Rahmet H., Andasbaev E.S.** THEORETICAL STUDIES OF CHARACTERISTICS OF ELECTRICAL NETWORK PARAMETERS

15:00-15:10 **Kumekov S.E. Saitova N.K.** SPECTRS OF PHOTOLUMINESCENCE OF CARBON-CONTAINING NANOSTRUCTURAL OBJECTS

15:10-15:20 **Grushevskaya E.A., Lebedev I.A., Dmitrieva E.A., Ryabikin U.A., Temiraliev A.T., Fedosimova A.I.** A METHOD OF INCREASE OF SIGNAL / NOISE RELATIONS

15:20-15:30 **Dmitrieva E.A., Mukhamedshina D.M., Mit K.A., Lebedev I.A., Grushevskaya E.A.** INFLUENCE OF ISOTHERMAL ANNEALING ON THE OPTICAL AND ELECTRICAL PROPERTIES OF THIN SnO<sub>2</sub> PELLICLE ALLOYED BY FLUORINE

15:30-15:40 **Sakhnenko N.D, Ved M.V., Ermolenko I.Yu., Lunarska E., Yar-Mukhamedova G.Sh., Atchibaev R.A.** NANOCOMPOSITION ELECTROLYTIC COATINGS WITH IMPROVED ANTI-CORROSION PROPERTIES

15:40-15:50 **Kupchishin A.I., Niyazov M.N., Taipova B.G.** EFFECT OF ELECTRON AND GAMMA IRRADIATION ON THE PARTIAL DENSITY OF ACTIVATED SLUDGE

15:50-16:00 **Esyrev O., Ibragimova N.A., Kupchishin A.I., Khodarina N.N.** HEAVY METALS IN THE ORGANISM OF THE FISH OF SORBULAK LAKE

**Physics of Plasma, Physics of Liquids and Gases, Thermophysics and Computer Physics:** (Phys-Tech faculty, aud. 304) Moderator **Kosov N.**

14:00-14:10 **Abdirahmanov A.R., Dosbolaev M.K., Ramazanov T.S.** THE DESTRUCTION OF PLASMA-DUST STRUCTURES IN THE MAGNETIC FIELD

14:10-14:30 **Davletov A.E., Yerimbetova L.T.** SELF-CONSISTENT CALORIC EQUATION OF STATE FOR DUST PARTICLES OF FINITE SIZES

14:30-14:50 **Zhukeshov A.M., Useinov B.M., Amrenova A.U., Gabdullina A.T., Moldabekov Zh.M.** DETERMINATION OF PLASMA PARAMETERS ON THE INSTALLATION "PLASMA FOCUS"

14:50-15:00 **Zhukeshov A.M., Gabdullina A.T., Amrenova A.U., Mukhamedryskysy M., Fermakhan K., Moldabekov Zh.M., Serik K., Kadyr E.** TECHNOLOGY OF MODIFICATION OF MATERIALS BY ARC PLASMA AND PROBLEMS OF AUTOMATION OF A VACUUM SYSTEM

15:00-15:20 **Raiymkhanov Zh., Dosbolaev M., Tazhen A.B., Utegenov A.U., Ramazanov T.S.** SEDIMENTATION OF CARBON NANOPARTICLES ON THE SURFACE OF METALS IN THE IMPULSE PLASMA FLOW

15:20-15:40 **Bolegenova S.A., Tuyakbaev A.A., Mukanova A.M.** ELECTRONIC SYSTEM FOR THE NON-CONTACT MEASUREMENT OF THE TEMPERATURE OF THE WINDINGS OF THE STATOR OF TURBOGENERATORS OF LARGE POWER

15:40-16:00 **Kosov V.N., Zhavrin Yu.I., Fedorenko O.V., Mukamedenkizy V.** EMERGENCE OF CONVECTIVE VIBRATIONAL PERTURBANCES IN DIFFUSION OF GAS AND BINARY MIXTURE WITH VARIOUS MOLECULAR MASSES OF COMPONENTS IN VERTICAL CHANNELS

16:00-16:20 **Moldabekova M.S., Krasikov S.A., Asembayeva M.K., Fedorenko O.V.** MODELING OF GAS MIXTURE DIVISION ON COMPONENTS DEPENDING ON PRESSURE

16:20-16:40 **Tleukenov S.K., Ispulov N.A.** TO THE QUESTION OF APPLYING OF THE METHOD OF THE MATRICIANT IN SOLVING THE PROBLEM OF THE THERMOELASTICITY IN ANISOTROPIC MEDIUMS

16:40-17:00 **Shaimerdenova K.M., Ahmadiev B., Naushbarsan Zh.K., Sekerbaeva G.K.** STUDY OF THE HEAT EXCHANGE PROCESS IN VERTICAL HEAT EXCHANGERS

17:00-17:20 **Bizhigitov T, Sembieva A.** DEPENDENCE OF THERMAL VOLUME EXPANSION COEFFICIENTS FROM TEMPERATURE FOR THE II TYPE OF ICE AT PRESSURES 300 MPa, 500 MPa, 750 MPa

17:20-17:40 **Kunakov S.K., Shapieva A. Bolatov Zh.** PHYSICS OF NON EQUILIBRIUM CONTINUOUS PLASMA IRRADIATED BY FISSION FRAGMENTS. ACHIEVEMENTS AND NON SOLVED PROBLEMS

**Astrophysics, Astronomy, Space Physics:** (Phys-Tech faculty, aud. 305)

Moderator **Toktarbay S.**

14:00-14:30 **Zhusupov M.A., Ibraeva E.T., Kabatayeva R.S., Zhaksybekova K.A.** ANALYSIS OF ELASTIC AND INELASTIC PROTON SCATTERING ON <sup>13</sup>C, <sup>15</sup>C ISOTOPES WITHIN MULTIPLE SCATTERING THEORY

14:30-14:50 **Idrisov A., Protsenko N., Dzhunushaliev V.D.** SPHERICALLY SYMMETRIC SOLUTIONS IN MODIFIED THEORIES OF GRAVITY

14:50-15:10 **Kusakin A.V., Kokumbayeva R.I., Paryshev D.A., Tezekeev S.M.** PHOTOMETRIC STUDIES OF THE ECLIPSING SYSTEM WITH THE PULSATING COMPONENT OF RZ CASSIOPEIA

15:10-15:30 **Berdaliev N.E, Egamberdiev Sh. A.** SOLAR ACOUSTIC RADIUS AND SOLAR ACTIVITY

16:00 – 16:30 Coffee-break

16:30-18.30 Section Reports

**Nanotechnology, Materials Science, Condensed Matter Physics and Nonlinear Physics:** (Phys-Tech faculty, Conference hall 330) Moderator **Yar-Mukhamedova G.**

16:30-16:50 **Kupchishin A.I., Niyazov M.N., Taipova B.G., Abduhairova A.T., Voronov N.A.** EFFECT OF ELECTRON IRRADIATION ON THE DEFORMATION OF PLEXIGLAS DURING BENDING

16:50-17:10 **Kupchishin A.I., Tronin B.A., Shakhanov K., Gryzlov A.V.** CARRYING OUT OF TECHNICAL AND EXPERIMENTAL WORKS ON THE ACCELERATOR OF ELECTRONS OF TYPE LEA-6 AT ABAY KAZNPU

17:10-17:30 **Voronova N.A., Kupchishin A.I., Kirdyashkin V.I., Kupchishin A.A.** THE GENERALIZED CASCADE-PROBABILITY FUNCTION AND THE BOLTZMANN EQUATION

17:30-17:50 **Abduhairova A.T., Voronova N.A., Kupchishin A.I., Niyazov M.N., Kirdyashkin V.I.** EFFECT OF TEMPERATURE, MECHANICAL ACTION AND ELECTRONIC IRRADIATION ON THE MECHANICAL PROPERTIES OF LINEAR POLYMERS

18:00 Closing remarks

**April 15, 2018**

10-00 Excursion around the city and the remarkable outskirts of Almaty