

3rd International Conference on Quantum Electrodynamics and Statistical Physics

SECOND ANNOUNCEMENT

General Information

The 3rd International Conference "Quantum Electrodynamics and Statistical Physics" (QEDSP2011) will be held on **August 29 – September 02, 2011** at the National Science Center "Kharkov Institute of Physics and Technology" (NCS KIPT) and Kharkov National University, Kharkov, Ukraine.

Organizers of QEDSP2006

The conference is organized by National Science Center "Kharkov Institute of Physics and Technology" of Academy of Sciences of Ukraine and by Akhiezer Institute for Theoretical Physics of NSC KIPT in collaboration with Karazin Kharkov National University.

Presentations

The Conference will have plenary, parallel, and poster sessions. There will be invited/plenary (25+5 min), parallel session (15+5 min) talks, and poster presentations. The working language of the QEDSP2011 Conference is English.

Format of the Conference

The Conference plenary talks start every morning at 9:00 and end about 13:30. After a lunchbreak talks resume at 14:40 and end around 18:00. The Conference ends on Friday September 02 at 13:30.

Instructions for oral presentations

There will be necessary facility for oral presentations (beamers and overhead projectors). Participants may use their own notebooks but they are recommended to use Conference service notebooks and to bring the presentations on commonly used carriers (CD, DVD, Flash-memory and 3" disks) made with the standard PC software (PowerPoint, Acrobat, GhostScript). Participants are asked to notify [Organizing Committee](#) if they are going to use less standard software in their presentations.

Poster instructions

The Poster Sessions for QEDSP2011 will be held on Wednesday (Aug 31) and Thursday (Sept 01) afternoons. The posters will be on display from 14:40 to 18:00. In order to take maximum advantage of the poster session presenters should prepare material that can be displayed on a board and readable from a distance of about one meter (3 ft). Poster boards are 150 cm wide and 90 cm high intended for two posters 60 cm wide and 85 cm high (A1); push-pins to mount the posters will be provided. Presence of at least one of the coauthors of a poster is required during presentations. Presenters are responsible for removing materials from their display boards after the session.

Book of Abstracts

Participants will receive the Book of Abstracts at the registration desk.

Proceedings

The Proceedings will be published after the Conference in a special issue of a journal *Problems in Atomic Science and Technology, Ser. Nuclear Physics*, published by NSC KIPT. Details of submission and the relevant guidelines will be announced later.

Conference Preliminary Program

The QEDSP2011 Conference has already succeeded in attracting attention of a scientific community: 197 participants from 13 countries have been registered presenting 226 talks. Below are listed some plenary and oral presentations:

“String fragmentation model with quark spin” **X.Artru** (*Institut de Physique Nucléaire de Lyon, France*)

“Theory of the heterophase fluctuations in the vicinity of a critical point of an amorphous state” **A.Bakai** (*NSC KIPT, Ukraine*)

“Multiple M0-brane system in curved superspace and matrix model interaction with 11D supergravity” **I.Bandos** (*Universidad del Pais Vasco, Spain*)

“Advanced Bogolyubov model of imperfect Bose gas and superfluidity” **N.Bogolyubov, Jr.** and **D.Sankovich** (*Steklov Mathematical Institute, Russia*)

“Chaotic Universe” **Yu.Bolotin** (*NSC KIPT, Ukraine*) and **V.Yanovsky** (*Institute of Single Crystals, Ukraine*)

“Levy flights and fractional Brownian motion as the paradigms of anomalous transport” **A.Chechkin** (*NSC KIPT, Ukraine*)

“Causal quantum mechanics and theory of a psi-wave-packet reduction” **P.Fomin** (*Bogolyubov Institute for Theoretical Physics, Ukraine*)

“Coherent interactions of high-energy particles in a bent crystal” **V.Guidi** (*Istituto Nazionale di Fisica Nucleare, Italy*)

“High-energy diffraction of particles and nuclei” **L.Jenkovszky** (*Bogolyubov Institute for Theoretical Physics, Ukraine*)

“Unruh Effect and Some High Energy Experiments” **K.Ispirian** (*Alikhanian National Laboratory, Armenia*)

“Critical phenomena and critical dimensions” **V.F. Klepikov, A.V. Babich, S.V. Berezovsky,** and **L.N. Kitcenko** (*Institute of Electrophysics & Radiation Technologies, Ukraine*)

“Angular distribution and asymmetries in flavor-changing neutral-current decay $B \rightarrow K^* 1+1^-$ ” **A.Korchin, V.Kovalchuk,** and **D.Lazarenko** (*NSC KIPT, Ukraine*)

“Nonrelativistic quantum theory of stimulated Cherenkov radiation and Compton scattering in plasma” **M.Kuzelev,** and **A.Rukhadze** (*Prokhorovs GPI of the RAS, Russia*)

“Phase transitions in cold plasma induced by external acoustic fields” **A.R.Mkrтчhyan, A.G.Mkrтчhyan,** and **A.S.Abrahamyan** (*Institute of Applied Problems of Physics, Armenia*)

“Linear and nonlinear kinetic equations for state populations of quantum systems” **E.Petrov** (*Bogolyubov Institute for Theoretical Physics, Ukraine*)

“Radiative quarks masses at MSSM” **M.Rodriguez** (*Instituto de Matematica, Estatistica e Fisica, Universidade Federal do Rio Grande, Brazil*)

“Ion acoustic turbulence in plasmas with anisotropically heated ions” **V.Silin** (*Lebedev Physical Institute of the RAS, Russia*)

“Aharonov-Bohm effect in scattering of high-energy particles” **Yu.Sitenko** (*Bogolyubov Institute for Theoretical Physics, Ukraine*)

“High energy proton electron scattering” **E.Tomasi-Gustafsson** (*CNRS/IPN Orsay, France*)

“Coherent processes in scattering and radiation at high-energies in crystals (to the 100th anniversary of the birth of A.I. Akhiezer)” **N.Shul'ga** (*NSC KIPT, Ukraine*)

“2D Ising-Heisenberg model with quartic interaction” **J.Valverde** (*Universidade Federal do Rio Grande, Brazil*)

“Time-nonlocal Fokker-Planck equation and unified description of ballistic and diffusive processes” **A.Zagorodny** (*Bogolyubov Institute for Theoretical Physics, Ukraine*)

Tentative QEDSP2011 Schedule

	Sunday, 28 Aug	Monday, 29 Aug	Tuesday, 30 Aug	Wednesday, 31 Aug	Thursday, 01 Sept	Friday, 02 Sept	Saturday, 03 Sept	
08:30 - 09:00		Registration					Excursion to Svyatogorsk Lavra Monastery	
09:00 - 10:30			Plenary Session	Plenary Session	Plenary Session	Plenary Session		
10:30 - 11:00		Opening ceremony and Plenary Session	Coffee break	Coffee break	Coffee break	Coffee break		
11:00 - 11:20			Plenary Session	Plenary Session	Oral Parallel Sessions	Plenary Session & Closing ceremony		
11:20 - 11:30		Coffee break						
11:30 - 12:00		Plenary Session	Lunch	Lunch	Lunch			
12:00 - 13:30								
13:30 - 14:40		Oral Parallel Sessions	Oral Parallel Sessions	Oral Parallel	Poster Session	Oral Parallel		Poster Session
14:40 - 16:00		Coffee break	Coffee break	Coffee break	Coffee break			
16:00 - 16:20	Registration	Oral Parallel Sessions	Oral Parallel Sessions	Oral Parallel	Poster Session	Oral Parallel		Poster Session
16:20 - 18:00		Excursion	Film	Optional Poster Session				
18:00 - 19:00		Visit to Kharkov National University Museum & Welcome Party			Conference Dinner & Concert			
19:00 - 19:30								
19:30 - 20:00								
20:00 - 21:00								

List of Sections

- A. Quantum field theory
- B. QED processes at high energies
- C. Elementary particle theory. Cosmology
- D. Theory of irreversible processes
- E. Phase transitions and diffusion processes in condensed matter and gases
- F. Nonlinear dynamics and chaos

Conference Fee

The conference registration fee will be 300 Euro and must be paid in cash at the registration desk. It includes costs for local transportation, tea/coffee, welcome party, conference dinner and a copy of the Conference Proceedings.

Accommodation

The [Organizing Committee](#) suggests to the conference participants to book the rooms at the hotel "[Kharkov](#)" (city center, 10 km from the conference site, transportation to the conference site and back provided), or in a rest center "Solnechny" (about 1 km from the conference site). The [Organizing Committee](#) will provide the bus from "Solnechny" to the conference site in the morning.

The accommodation at the hotel "[Kharkov](#)" should be booked directly with the hotel by fax, [e-mail](#) or [online](#).

Hotel "KHARKOV"

Svobody square 7, Kharkov, 61022, Ukraine

Tel: +38(057) 758-0008, +38(057)758-0153,

Fax: +38(057) 705-1963

E-mail: hotel@ukrsat.kharkov.ua,

Web-page: <http://hotel.kharkov.com/welcome?lang=en>

Type of apartment	Price \$US	
	One person	Two persons
SGL/Single B*	45	–
SGL/Single A*	50	–
DBL/Double C	50	60
TWN/Twin B	70	80
DBL/Double B	70	80
TWN/Twin A	70	80
DBL/Double A	95	105
Junior Suite/JS A	110	135
Suite C	145	155
Suite B	170	180
Suite A	295	305

— Price is indicated in USD, including VAT and breakfast

— Rates are subject to change without notice

For those who prefer the rest center "Solnechny" (about \$25 per night, per person in a double room, breakfast included) we recommend that you make your reservation via [Organizing Committee](#) as soon as possible, as a number of rooms is limited.

Participants who wish to reserve a room in "Solnechny" must be already registered in the Conference and send their request to [Organizing Committee](#). Rooms will be allocated on a first-come-first-served basis up to the availability limit.

More information on accommodation in Kharkov can be found at:

<http://www.kharkov.ua/about/hotels-e.phtml?prom=24>, <http://www.hotel-mir.com.ua/eng/>

We remind that the [climate](#) in [Kharkov](#) is temperate continental with the beautiful autumn that is as a rule warm and dry with a lot of sunny days.

Travel and Transportation

From abroad you may fly to Kiev ([Borispol airport](#)) or to Kharkov (the only flights from Europe are made daily by [Austrian Airlines](#) via Vienna and twice a week by [Czech Airlines](#) via Praha). There are four flights daily from Kiev to Kharkov.

Domestic Driving Directions

If you fly to Kharkov airport you can either get a taxi or a bus #119 to the hotel "[Kharkov](#)", (about 30 minutes drive by taxi). You can get the ticket by the bus driver (2.5 Hryvna or equiv. \$0.3) (a [schematic map](#) is posted at the conference site).

If you arrive at Kharkov by train you should use the taxi or underground from “Pivdenny Vokzal” station to “Radyanska” station, change the line and go to the station “Universitet” (hotel “Kharkov”).

The conference will be held in [Kharkov National University](#) in city center near hotel “Kharkov” and in the [National Science Center “Kharkov Institute of Physics and Technology”](#) (NSC KIPT) in the settlement Pyatikhatki at the outskirts of Kharkov. An inexpensive and most convenient choice to get to Pyatikhatki is to take a bus #296 or a minibus #111 from Svoboda square near the hotel “[Kharkov](#)” and go to the bus stop “Institute”. You can buy the ticket directly with the bus driver (2.5 Hryvna=\$0.3). A taxi cost is about \$7.

The rest center “Solnechny” is in Pyatikhatki at 1 km distance from the National Science Center KIPT(a [schematic map](#) is posted at the conference site).

We ask the participants of the conference to inform dates of their arrival and departure for organization of their meeting and seeing-off. For colleagues arriving by plane, a shuttle service will/can be organized. So, these colleagues are asked to submit in advance the dates/times of arrival and departure and flight numbers.

Social Program

Monday, August 29: Welcome Party and Visit to the [Kharkov National University](#).

Karazin Kharkov National University is one of the oldest universities in Eastern Europe. It was founded in November 1804, on the initiative of the prominent educator V.N. Karazin and in accordance with the charter of Tsar Alexander I.



The University gave a powerful impetus to the emergence of Kharkov as a major scientific and cultural center and an academic hub of Ukraine. Today the University justly rates among the best Ukrainian classical universities and is known in many countries.

Kharkov University is the only university in Ukraine that has trained and employed three Nobel Prize laureates: the biologist I. Mechnikov, the economist S. Kuznets, and the physicist L. Landau.

More information is available at: <http://www.univer.kharkov.ua/>.

Tuesday, August 30: Excursion in city of Kharkov and Visit to the Kharkov Art Museum.

Kharkov (Ukrainian Kharkiv) is a city and administrative centre in the northeastern of Ukraine. It was founded 1654 as a military stronghold to protect Russia's southern borderlands.

Today Kharkov is the second largest city in Ukraine. Its industrial structure is headed by engineering.

The city is one of the most important cultural and educational centres of Ukraine. Besides the university there are numerous other scientific-research and higher education institutions.

Kharkov has a philharmonic hall, several theatres, a planetarium, and a number of museums. Pop. (est.) 1,500,000.

More information is available at the site of [Kharkov City Administration](#) and at <http://www.kharkov.ua/index-e.phtml>.

Wednesday, August 31: A film about Alexander I. Akhiezer, founder of the [Akhiezer Institute for Theoretical Physics](#).

Thursday, September 1: Conference Dinner and a Concert

The Conference Dinner (€20 per person) will take place at the rest center “Solnechny”.

Saturday, September 3: Excursion to Svyatogorsk Lavra Monastery.

The [Svyatogorsk Lavra](#) or the Svyatogorsk Cave Monastery is a historic Orthodox Christian monastery near the city of Svyatogorsk in Donetsk region of eastern Ukraine (about 150 km from Kharkov).



The lavra is located on the right bank of the Seversky Donets River. The name comes from the hill on which it sits — Svyatogorsk or Holy Hill.

The first monks to settle the area were in the 14th-15th centuries. Today, this is a place that attracts numerous orthodox worshipers. The monastery community consists of more than 100 people, which increases each year.