



The XXXVIIth ANNUAL MEETING of ESNA

First Circular Distributed only via E-mails (Internet)



Joint Institute for Nuclear Research (JINR)

Dubna – RUSSIA 10 - 14 September 2007

Particular focus of the conference: ENVIRONMENTAL DEGRADATION AND AGRICULTURE

Contact persons:

Dr. Cristiana Oprea (Meeting Chairperson) Dr. Dmitry V. Kamanin (Meeting Co-chairperson) Miss Anastassiya A. Dolya (Meeting scientific secretary)

> E-mail of the conference esna2007@jinr.ru

ESNA web sites:

http://www.mendelu.cz/esna/ http://www.jinr.ru/esna2007/

Dear Colleagues,

On behalf of the ESNA Committee it is my pleasure to invite you to participate in the XXXVII Annual Meeting of our Society to be held in Dubna, Russia. Dubna is located in the Moscow area and has many attractive surrounding and natural beauties.

The venue of the ESNA meeting is the Joint Institute for Nuclear Research - an international intergovernmental scientific research organization.

The Joint Institute for Nuclear Research (JINR) was established through the Convention signed on 26 March 1956 in Moscow by representatives of eleven founding states to unite their scientific and material potential in order to study fundamental properties of matter. It was registered with the United Nations on 1 February 1957.

JINR is a genuine international institution. Its supreme governing body is the Committee of Plenipotentiaries of all 18 member states. The research policy of JINR is determined by the Scientific Council, which consists of eminent scientists from the Member States as well as famous researchers from France, Germany, Italy, the USA and the European Centre for Nuclear Research (CERN).

The main fields of JINR's activity are theoretical and experimental studies in elementary particle physics, nuclear physics, and condensed matter physics. The research programme of JINR is aimed at obtaining highly significant results of principal scientific value.

Following the decision of the General Assembly taken in lasi at the end of the XXXVI Meeting, the Dubna's Meting will be experimentally organized in a different way. In the morning we will have common scientific activities, this year regarding Environment Degradation and Agriculture, where ESNA participants will present orally their work. In the afternoon the Working Groups will have their activity as usual. This will allow us to spend more time discussing all together scientific aspects of a complex and articulated subject as agriculture.

I hope this system will work and I strongly invite you to submit to the morning section your papers.

I am looking forward to meeting you here in September 2007!

Professor Stefano Grego, President of ESNA



What is ESNA? / Who are ESNA's participants?

The European Society for New Methods in Agricultural Research (ESNA) is an international society established in Wageningen (The Netherlands) in 1969 with the aims of exchanging ideas and techniques to promote the advancement of agricultural sciences. The original scope - the co-ordination of research in the application of nuclear techniques in agriculture – has gradually changed and now the Society also covers aspects of environment protection and the application of new methods and biotechnology in agricultural research. The Society organises annual meetings in various European countries and the scientific programme is devoted to fundamental and applied issues from the mentioned areas (scientific topics of the 6 working groups).

Further information can be found on web site http://www.mendelu.cz/esna/.

ESNA committee

President: Prof. Stefano Grego_- Italy DABAC-Universita della Tuscia, Via S. Camillo de Lellis, 01100 Viterbo, Italy Fax: +39 0761 357242; Phone: +39 0761 357246/901/900, E-mail: grego@unitus.it

Past President: *Prof. Dennis A. Baker_*– United Kingdom Fax: +44 1233 813/140; Phone: + 44 1233 812 401 E-mail: dennis.baker@ic.ac.uk

Vice-president: Prof. Stanislav Prochazka_ – Czech Republic

Fax: +420 5 4513 3025; Phone: +420 5 4513 6070 E-mail: <u>botanica@mendelu.cz</u>

Committee Members (Fax, E-mail): Prof. A. S. Szabo (HU), +36 1 48296015 andras.szabo@uni-corvinus.hu Dr. M. E. Szczawinska (PL), (48) 22 5936071 malgorzata szczawinska@sggw.pl szczawinski@alpha.sggw.waw.pl Prof. A. Lysak (PL), +48 122588111 ext. 332 alysak@izoo.krakow.pl Prof. A. Sechman (PL), +48 12 633 6245 rzsechma@cyf-kr.edu.pl Prof. V. Licina (SCG), +381 11 3161 352 licina@agrifaculty.bg.ac.yu Prof. Gh. Budoi (RO), +40 21 3180256 budoi gh@yahoo.com Dr. V. Reinöhl (CZ), +420 5 451 3025 rein@mendelu.cz Prof. I. Smetanska (GE), +49 30 8327663 irina.m.smetanska@tu-berlin.de Prof. R. Ciofu (RO), +40 213183636 rciofu@gmail.com Prof. I. Rosca (RO), +40 212242815 rosca@cons.incerc.ro Dr. C. Oprea (JINR), +7 49621 65429 coprea2007@yahoo.co.uk

ESNA General Secretary

<u>Ass. Prof. Michael Pöschl</u> Mendel University of Agriculture and Forestry, Zemedelska 1, 613 000 Brno, Czech Republic Phone: +420 5 4513 3294, Fax: +420 5 4513 3295 E-mail: <u>poschl@mendelu.cz</u>, http://www.mondelu.cz/

http://www.mendelu.cz/esna/

<u>Dr. Cristina Zlati</u> University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania E-mail: zlaticris@univagro-iasi.ro

XXXVII ANNUAL MEETING of ESNA

10 - 14 September 2007, Dubna, RUSSIA

The meeting is jointly organised by:

- Joint Institute for Nuclear Research, Dubna, Moscow Region, Russia
- European Society for New Methods in Agricultural Research
- The Dubna International University of Nature, Society and Man, Dubna, Russia
- The Moscow State University

Meeting Chairperson

<u>Dr. Cristiana Oprea</u> Phone: +7 49621 62169 Fax: +7 49621 65429 E-mail: <u>coprea2007@yahoo.co.uk</u>

Meeting Co-Chairperson

<u>Dr. Dmitry V. Kamanin</u> Phone: +7 49621 65839 Fax: +7 49621 65981 E-mail: <u>kamanin@jinr.ru</u>

Scientific secretary

<u>Anastassiya A. Dolya</u> Phone: +7 49621 65582 Fax: +7 49621 65981 E-mail: <u>dolya@jinr.ru</u>

Organizing committee

Prof. Alexey N. Sissakian Prof. Stefano Grego Prof. Oleg L. Kuznetsov Prof. Sergey A. Shoba

Secretariat

Yuri N. Voronov Karine R. Astvatzaturova Ioan Alexandru Oprea Elena Kuznetsova

GENERAL INFORMATION

ESNA Meeting 2007, 10 - 14 September 2007, Dubna, RUSSIA

Conference venue: The XXXVII meeting will be held at the Joint Institute for Nuclear Research in Dubna, Moscow Region, Russia, for registration, Opening Ceremony, invited lectures, working group's sessions and poster session. For any question or problem please contact the local organisers at this e-mail address: esna2007@jinr.ru.

<u>Dubna</u> is a quiet and pleasant town 132 km north of Moscow situated on the picturesque banks of the Volga River. There is a <u>railway</u> and <u>bus</u> connection between Dubna and Moscow. Its surroundings offer peaceful rural scenery, which, though having no famous monuments, keeps memories of the past. A 2-hour trip brings you to Moscow or Sergiyev Posad (the Russian Orthodox center with its 500-year-old Trinity Monastery) or to Klin with the famous Tchaikovsky home museum.

Conference registration: Before 15 May 2007, please, return the APPLICATION FORM FOR PARTI-CIPATION AND ACCOMMODATION (accessible at <u>ESNA web site</u>) to the meeting chairperson Dr. Cristiana Oprea <u>esna2007@jinr.ru</u>. **On-site registration** of the participants will take place at the Dubna Hotel (ground floor) from 5 p.m. to 9 p.m. on 10 September 2007 and at the International Conference Hall of JINR from 8:30 a.m. on 11 September 2007.

Participation fee:

- For ESNA members: 110€ (not including membership fee; the membership fee 25€ will be collected separately at the registration desk or can be sent to the ESNA Account in Brno (see <u>here</u>) in advance.
- For non-members: 150€ (not including membership fee).
- For accompanying persons: 30€.
 Payable at congress board, before 15 May 2007, in € (EURO) only, at Bank account :

Joint Institute for Nuclear Research,

Bank "Moscow Business World", Russia, Moscow, 40807978900140027653, MOBWRUMM,

"VTB Bank (Deutschland) AG", Stephanstrasse 1, 60313, Frankfurt/Main, Germany,

Account: 0103110391, SWIFT: OWHBDEFF

The surname, name and the congress ESNA2007 should be indicated by participants at the conference.

The participation fee includes: Book of Abstracts and a copy of congress proceedings on CD-ROM; congress information material; refreshments during coffee breaks; Welcome Party; car transportation from the Moscow airport or railway station to Dubna and back; professional visits. The participation fee does not include: payments for tourist excursion, gala dinner and the ESNA membership fee.

Language: Working language of the meeting is **English**; translations will not be provided.

Facilities: Overhead / slide projectors and PowerPoint projectors will be provided for the presentations. A computer room with internet connection will be open during the Conference.

Travel information

HOW TO GET Dubna?

<u>By plane</u>: Sheremetyevo Internat. Airport, Domodedovo Internat. Airport, Vnukovo Internat. Airport.

<u>By car</u>: from Moscow (1h15 - 2h30): Dmitrovskaia Motorway to Dubna from Moscow. All airports are connected to the Moscow city with highways and rail links.

<u>By train</u>: There are 9 train stations ("vokzal" in Russian) in Moscow. Each has the name of the main direction of the trains that depart from this railway station. All the railway stations are located close to the city centre. To get to a railway station, you can use the metro (usually the railway stations are just outside the metro exit). From Moscow to Dubna (2h - 2h45): Train from "Savelovskij" railway station.

HOW TO GET TO THE CONGRESS SITE?

We kindly ask you to inform the Local Organising Committee of the date of your arrival in Moscow. We need info on your flight/train number at least five working days before the arrival. The Local Org. Committee will arrange your transportation from Moscow to Dubna by car. Otherwise you should go by train from the "Savelovskij" railway station ("Savelovskaja" underground station) to Dubna by yourself. LOCAL TRANSPORT

For transport you can take the bus, maxi-taxi and taxi. Bus tickets should be bought from the controller immediately after boarding. The cost is 12 rubles per trip $(0.35\in)$. These are small buses (12 -14 people) going on certain routes. They can stop on request anywhere on the route. The price of a single ticket is 15 rubles $(0.45\in)$. There are two taxi companies in town. The price is ca 25 rubles/km (about $0.75\in)$.

RETURN TRANSPORTATION TO THE AIRPORT (OR RAILWAY STATION)

Participants from abroad are kindly asked to fill out the car reservation forms, which they will find in the Congress folders and hand them back to the Local Org. Committee **not later than five working days before departure.** To confirm the return flights, please contact the Local Org. Committee. PASSPORT AND VISAS

To arrange visa support the participants are kindly requested to inform the Local Org. Committee of their personal data. All participants and accompanying persons should have a valid passport. <u>The Visa Registration Form</u>, duly filled up as well as a scanned copy in JPG format of the most important pages of the passport **has to be sent before May 15, 2007** to the Local Org. Committee. In addition, if you do not apply for the visa in your native country, a scanned copy of the document permitting your stay in that country is also necessary. Letters of invitation provided by the Local Org. Committee can be used for visa formalities if necessary.

All participants and accompanying persons must have a valid passport.

Invitation Letter / Certification of Attendance: The Organising Committee will send letters of invitation to persons wishing to take part in the Conference. These letters will be provided to help participants raise conference attendance funding and to obtain visas. A certificate of Attendance will be issued for the registered participants upon request. A receipt of the registration fee and accommodation will be given to all participants.

Grants

A limited number of grants is available for young researchers coming from the JINR member countries, thanks to the financial support provided by the Joint Institute for Nuclear Research. Typically we would expect the support to be restricted to accommodation expenses. It can be extended to (partially) cover travel expenses in exceptional cases.

The applicants for grants have to send the APPLI-CATION FORM FOR GRANT (accessible at ESNA web site), a short curriculum vitae (including age and relevant experience) and the abstract of the paper they want to present, to the chairperson of the ESNA working group and also to the ESNA secretariat in Brno, before 15 May 2007. The basic criteria for the grant are: ESNA membership, age and quality of submitted paper. Priority GRANT applications will be able via e-mail. The ESNA secretariat will select acceptable applicants in co-operation with the chairpersons before 15 May 2007. The ESNA President, Prof. S. Grego will give his final approval and send the list of selected grantists to the Local Secretariat. The Conference secretary will set up the final list and the order of the grant receivers in June 2007.

Any applications for grants submitted after the deadline (15 May 2007), and those that do not meet all the required criteria, will not be accepted. After receiving the grant, the grantists are urgently requested to inform the Local Secretary by e-mail or fax immediately that they accept the grant and that they will attend the Conference. If they fail to do so, their grant will be cancelled.

BORKOVEC TRAVEL SCHOLARSHIP

To commemorate our late General Secretary, Vladimir Borkovec, a travel fund towards the cost of travel has been established to provide some support for young scientists who are members of ESNA and are presenting a paper at one of our annual meetings. Application should be made on the APPLICATION FORM FOR BORKOVEC TRAVEL GRANT (accessible at <u>ESNA web</u> <u>site</u>) including a short curriculum vitae and abstract of paper they want to present, and sent to the Secretariat in Brno for consideration **before 15 May 2007**. The number of travel grants is dependent on the very limited means of the sponsors and donors. **Priority BORKOVEC TRAVEL Grant Applications will be enabled via e-mail**. Accommodation (not included in participation fee): During the congress the participants will be accommodated in the two local Dubna hotels, named "Dubna" and "Dubna-Grill". To reach the congress place from the hotels no local transport is needed. Prices (by JINR): Regular rooms 15 - 30€ /night,

De luxe numbers 50 - 80€ /night

For both room categories there are also an additional 3 - 4 room facility options. You can reserve the room at the hotel on your own, but the room/facilities prices will be higher. There will be no free rooms at the University campus as the university year/courses begin at the 1st September.

Meals (by JINR): Lunches: 15€ / 3 meals/day.

Meals are served in the restaurants of the Dubna Hotels and the International Conference Hall cafeteria. Meals are served also in the Café "Paradise" and in the Café "Blue Laguna", but the prices will be higher.

Conference gala dinner will be held at the International Conference Hall cafeteria, starting at 7 p.m. Price: $20 \in$.

Excursions: A short excursion of Dubna suburbs with a visit to the Ratmino estate will be organized for accompanying persons. From the 18th till the end of the 19th century the place of Ratmino belonged to Prince Vyazemsky's family. The Ratmino estate has the Church of Our Praised Lady and a picturesque pine park.

We are planning to organize an excursion to Moscow to the Kremlin and Red Square (one of the candidates for the new 7 wonders of the world) for accompanying persons. We expect the price for the excursion to be about 35€. Those willing to participate in the excursion are kindly asked to contact the Local Org. Committee by e-mail, the earlier the better.

There is also a possibility to organize an excursion to St.-Petersburg or the Golden Ring towns (Rostov, Yaroslavl) after the congress, but the price for such excursions may be rather high. If you have personal requests for such an excursion, it will be considered.

The cost for each excursion will be payable at the registration desk.

Details will be sent with confirmation of registration.

Bank facilities: Currency exchange: Currency exchange facilities are available at Dubna Banks (3 branches).

Climate: In September the temperature usually fluctuates from +8/12 ^oC at night up to +12/18 ^oC in the daytime, rains are quite possible.

Tourism for accompanying persons: For congress participants and accompanying person excursions to the Moscow, Sergyiev Posad and other places will be organized. Dates and places will be detailed during the congress. Your personal requests are kindly welcome not later than one week before congress.

Useful numbers and information

International dialling code: +7 49621 Taxi: (496) 212-82-99, (496) 212-85-50, mob. +7 903-72-777-57

Bus station: not necessary, from Dubna station it takes about 10-15 minutes on foot to both hotels

Train station:

Dubna station - (49621) 4-10-41, (49621) 4-07-65; Moscow Saviolovsky Railway Station - (495) 285-90-05 Police: 02 or (49621) 47119 Fire-brigade: 01 or (49621) 64501 First aid: 03 or (49621) 450-01 Public administration: (49621) 62125/62129/62199

Opening hours of shops and some other facilities

Shops: mainly open from 10 a.m. till 7-8 p.m.

Supermarkets: Samokhval (Leningradskaya St.) - 24 hours a day; Perekrestok - 9 a.m. - 11 p.m.

Restaurants:

- Restaurant Dubna (for 130 guests + bar): Sun.-Thur. 7 p.m.- 11 p.m.; Fr., Sat. 8 p.m.-2 a.m. Restaurant Grill (for 110 guests + bar): Sun.-Thur.
- 4 p.m.-midnight; Fr., Sat. 6 p.m.-2 a.m. (+disco) Restaurant Slavjansky Traktir: Sun.-Thur. noonmidnight; Fr., Sat. noon-2 a.m.
- Restaurant Blue Laguna: Sun.-Thur.17:00midnight; Fr., Sat. 5 p.m.-1:30 a.m.

SCIENTIFIC PROGRAMME

ESNA Meeting 2007, 10 - 14 September 2007, Dubna, RUSSIA

Particular focus of this year's conference will be on Environmental Degradation and Agriculture. The workshop will join together all papers regarding the topic and each morning four-five papers will be presented in the plenary session. The WGs activity will be only in the afternoon. Also the plenary lectures will be focused on the given topic. Dr. Inna Zdislavovna Kamanina and Prof. Galina Vasilievna Motuzova will co-ordinate the workshop on the below given topics. We recommend that the contributed papers close to this topic be entered not only in the six existing working groups but also in this workshop (please mark it in the APPLICATION FORM and abstract and send it also to Dr. Kamanina). The final decision for the oral communications to be presented in the plenary session is due to the Secretary and the President. The character and form of the contributions and rules for publication are subject to the same principles as contributions for the current working groups.

Dr. Inna Zdislavovna Kamanina (address; fax; e-mail): The Department of Ecology and Earth Sciences, The Dubna International University of Nature, Society and Man, Universitetskaia St., 19, Dubna, 141980, Russia; +7 (49621) 22789; kamanina@uni-dubna.ru

Prof. Galina Vasilievna Motuzova (address; fax; e-mail): The Faculty of Soil Science, Moscow State University, Vorobyeri gori, Moscow, 119899, Russia; +7 (095) 939-09-89, motuzova@mail.ru **Topics:** Scientific topics of the workshop and working groups - see below.

Oral contribution/Poster/Abstract: At the meeting it is possible to present an ORAL CONTRI-BUTION (max. duration 15 min), or POSTERS (maximal size: width 80cm, height 100cm). The onepage ABSTRACT of not more than 250 words, and the papers, should be submitted. It is important to send your abstract as an e-mail (only as the last resort on a diskette) and a hard copy (by post) to the Local Organisers as well as to the Chairperson of the Working Group (or Workshop) before 15 May 2007, to ensure its publication in the Book of Abstracts. The Chairperson will confirm the submitted contribution by e-mail ONLY. Authors must bear in mind that their abstract(s) will not be published if they do not submit the respective confirmation about their effective participation to the Conference and the payment before 15 May 2007 (the payment deadline is not related to authors who received a grant). The abstract has to contain: Working group N°/Workshop (on upper side), the title (in capitals), name and surname of author(s), affiliation and full mailing address of authors, and e-mail address if any. The text should be typed using Microsoft word 2000 (or earlier version) in 12 point "Times New Roman" font (as informative as possible) according to the following example:

Working group N° 5 (oral presentation / poster / workshop)

DISTRIBUTION OF RISK POLLUTANTS IN SOIL FROM THE VICINITY OF A PETROCHEMICAL CENTER

Oprea C. (1) and A. Mihul (2)

- (1) Joint Institute for Nuclear Research, Frank Laboratory of Neutron Physics, Department of Experimental Neutron Physics, e-mail: coprea2005@yahoo.co.uk
- (2) University of Bucharest, E-mail: alexandru.mihul@cern.ch

This research reports the spatial pollution variation obtained through the study of

Book of abstracts: The Book of abstracts of the congress will be published and will contain the abstracts of the papers accepted for presentation and will be given to the participants at registration.

Proceedings: The Proceedings of the congress will be published on-line via Internet and as a CD-ROM of the conference. The deadline for submission of papers is 30 June 2007. Detailed instructions for the preparation of papers will be available via ESNA web sites.

GENERAL PROGRAMME

ESNA Meeting 2007, 10 - 14 September 2007, Dubna, RUSSIA

The final schedule of the scientific sessions, lectures and posters, will be provided during registration.

WORKING GROUPS / CHAIRPERSONS / SCIENTIFIC TOPICS

ESNA Meeting 2007, 10 - 14 September 2007, Dubna, RUSSIA

Workshop: Environmental Degradation and Agriculture

Prof. G. V. MOTUZOVA / Dr. I. Z. KAMANINA Agriculture and environment health; plant soil relationship; radionuclide and ecological problems; plant physiology and genetics; animal health; pests and diseases. Prof. G. V. Motuzova: Moscow State University, The Faculty of Soil Science, Vorobyeri gori, 119899, Moscow, Russia. Fax: +7 (095) 939-09-89, E-mail: motuzova@mail.ru Dr. I. Z. Kamanina: The Dubna International University of Nature, Society and Man, The Department of Ecology and Earth Sciences, Universitetskaia St., 19, 141980, Dubna, Russia. Fax: +7 (49621) 22789, E-mail: kamanina@uni-dubna.ru

WG 1: Food preservation and safety Prof. A. S. SZABO / Dr. M. SZCZAWINSKA Food preservation and food safety; food and feed irradiation; identification of irradiated food; pest control in agricultural crops; legal aspects; waste irradiation.

Prof. Andras S. SZABO, Budapest Corvinus University, Dept. of Food Chemistry and Nutrition. Somloi str. 14-16, H-1118 Budapest, Hungary,

Fax: + 36-1-4826015: E-mail: andras.szabo@uni-corvinus.hu

WG 2: Advanced methods in animal sciences

Prof. A. LYSAK / Prof. Ass. A. SECHMAN Animal physiology, endocrinology, reproduction, metabolism, pathology, genetics, radiobiology, and technology.

Prof. Andrzej LYSAK, National Research Institute of Animal Production, 32-083 Balice n. Krakow, Poland, Fax: +48 122588111 ext. 332; E-mail: alysak@izoo.krakow.pl

WG 3: Soil plant relationships

Prof. V. LICINA / Prof. Gh. BUDOI

Soil science; plant nutrition (including microbial aspects); application of stable and radioactive isotope techniques; physiological aspects; behaviour of pollutants in soil-plant system. Prof. Vlado Licina, Faculty of Agriculture, Nemanjina 6, 11081

Beograd, Serbia nad Montenegro Fax: +381 11 3161 352, E-mail: Licina@agrifaculty.bg.ac.yu

WG 4: Plants genetics, breeding and physiology Dr. V. REINÖHL / Prof. I. SMETANSKA

Plant biotechnology, including advanced breeding, genotyping and propagation methods; plant biochemistry, physiology and molecular biology.

Dr. Vilem REINÖHL, Dept. of Plant Biology, Mendel University of Agriculture and Forestry in Brno, Zemedelska 1, 612 00 Brno, Czech Republic.

Fax; +420 5 4513 3025; E-mail: rein@mendelu.cz

WG 5: Quality of the agro-ecosystem Prof. R. CIOFU/ Dr. C. OPREA

Disturbances of nutrient cycling; technological aspects of agroecosystem sustainability; technological and ecological aspects of waste recycling; technical aspects related to spacial variability; bioremediation.

Prof. Ruxandra CIOFU

University of Agronomic Sciences and Veterinary Medicine, Dept. of Horticulture, 59 Marasti street, Bucharest, Romania. Fax. +40 213183636; E-mail: rciofu@gmail.com

WG 6: Plant crop protection and biotechnology

Prof. I. ROSCA

Physiological, biological and genetic methods of control and related aspects.

Prof. Ioan ROSCA, University of Agronomic Sciences and Veterinary Medicine, Dept. of Entomology, 59 Marasti street, Bucharest, Romania. Fax: +40 212242815; E-mail: rosca@cons.incerc.ro