VIII INTERNATIONAL CONFERENCE ON SYMMETRY METHODS IN PHYSICS

SymPhys8

The Conference is dedicated to the 80th anniversary of Professor Smorodinsky's birth.

Dubna, Russia, July 28 - August 2, 1997

FIRST BULLETIN

The VIIIth International Conference on **Symmetry Methods in Physics**, organized by the Bogoliubov Laboratory of Theoretical Physics of the Joint Institute for Nuclear Research, is dedicated to the 80th anniversary of Professor Smorodinsky's birth.

Professor Ya.A.Smorodinsky (1917-1992) is an outstanding theoretical physicist. For a long time he worked at the Kurchatov Center. Professor Ya.A.Smorodinsky made a large contribution to the elementary particle physics, nuclear physics, and to investigation of various aspects of symmetries in Physics.

The first five Conferences were initiated by Professor Ya.A. Smorodinsky. They were organized by the Institute of Physics and Power Engineering in Obninsk from 1986 to 1991. The last two Conferences of this series were held at the Joint Institute for Nuclear Research in Dubna in 1993 and 1995.

The Conference is devoted to modern theoretical investigations on symmetry methods in physics.

The following **topics** will be discussed:

- INTEGRABLE MODELS, SEPARATION OF VARIABLES IN CLASSICAL AND QUANTUM MECHANICS; NONLINEAR PHENOMENA.
- GRAVITATION, STRINGS AND QUANTUM FIELD THEORY.
- QUANTUM GROUPS AND q–SPECIAL FUNCTIONS, NONCOMMUTATIVE GEOMETRY.
- OPTICS, QUANTUM OPTICS AND COHERENT STATES.
- PERIODIC AND APERIODIC STRUCTURES, QUANTUM HALL EFFECT, EXOTIC COULOMB SYSTEMS IN EXTERNAL FIELDS.
- SYMMETRY METHODS IN NUCLEI.
- MATHEMATICAL METHODS.

After the Conference (August 4 - 13) we plan to organize an INTERNATIONAL RESEARCH WORKSHOP ON INTEGRABLE MODELS, GAUGE THEORY AND QUANTUM GRAVITY.

PLENARY SPEAKERS

M.Charlton (*London*)
V.K.Dobrev (*Sofia*)
H.D.Doebner* (*Clausthal*)
J.P.Draayer (*Baton Rouge*)
F.Iachello (*New Haven*)
A.U.Klimyk (*Kiev*)
P.Kulish (*St.Petersburg*)
V.B.Kuznetsov (*Leeds*)
F.J.Lambert* (*Brussel*)
I.Meshkov (*Dubna*)
W.Miller Jr. (*Minneappolis*)
A.Yu.Morozov (*Moscow*)
A.M.Perelomov (*Zaragoza*)
L.O'Raifeartaigh (*Dublin*)
A.B.Shabat (*Moscow*)
D.V.Shirkov (*Dubna*)
G.Sudarshan* (*Austin*)
P.Van Moerbeke (*Louvain-la Neuve*)
P.Winternitz (*Montreal*)

(* to be confirmed)

INTERNATIONAL ORGANIZING COMMITTEE

A.N.Sissakian (**Chairman**, *Dubna*)

Yu.A.Danilov (*Moscow*)
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L.G.Mardoyan (**Scientific Secretary**, *Dubna*),

T.S.Donskova (**Secretary**, *Dubna*), A.P.Isaev (*Dubna*), G.G.Sandukovskaya (*Dubna*), N.Ya.Smorodinskaya (*Moscow*), V.I.Sanyuk (*Moscow*), S.I.Vinitsky (*Dubna*).

Scientific Programme

Around 22 plenary talks (45 minutes including ducsussion) are scheduled for the six morning sessions. The two parallel sessions (except Wednesday July 30) for short talks (25 minutes) will be held in the afternoon. Contributions to be given as a talk will be selected

by recommendation of the International Organizing Committee. All other contributions will be presented as posters.

Social Programme

Social Programme will include a Welcome Party on Monday evening (July 28), a boat excursion with a picnic on Wednesday afternoon (July 30), a Concert in the Scientists' Club on Thursday (July 31) and a banquet on Friday (August 01) in the International Conference Hall. Independently, we are also planning the programme for accompanying persons. The social programme **is included** in the registration fee.

Fees

The **conference fee** will be **US$ 450-550** (depending on the category of rooms in the hotel) for participants and **US$ 200** for accompanying persons. The conference fee includes:

- *registration fee*
- *bus transportation from the Moscow airport or railway station to Dubna and back*
- *hotel accommodation (for seven days)*
- *breakfast and lunch*
- *a copy of the Conference Proceedings*

Conference Site

The Conference will be held at the Laboratory of Theoretical Physics of the Joint Institute for Nuclear Research situated in Dubna.

Dubna is a quiet and pleasant town lying 132 km north of Moscow on the picturesque banks of the great Russian river Volga. Its surroundings offer peaceful rural scenery which, though having no famous monuments, keeps memories of the past. A 1–2 hours trip brings you to Moscow, the capital of Russia, to Sergiev Posad, the Russian Orthodox centre with its 500-year-old Trinity Monastery, to Fedoskino, the centre of the traditional Russian lacquer box craft, and to many other places of interest on this old Russian territory.

Proceedings

The Proceedings of the conference will be published.

The Proceedings of the 4-7th Conferences were published under the editorship of: (i) Yu.F. Smirnov and R.M. Asherova (Obninsk, 1991), (ii) Yu.F. Smirnov and R.M Asherova (Obninsk, 1992), (iii) A.N. Sissakian, G.S. Pogosyan and S.I. Vinitsky (Dubna, 1994), and (iv) A.N. Sissakian and G.S. Pogosyan (Dubna, 1996).

Additional Information

Persons interested in participating are kindly asked to apply before March 31, 1997 by fax or e-mail. The second bulletin containing further information and a more detailed

scientific program of the Conference will be sent on receiving the application forms. The Conference home page

http://thsun1.jinr.dubna.su/ symphys8

The working language of the Conference will be English.

Please, address all mail concerning

scientific programme to

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visas, accommodation, transportation to

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ON SYMMETRY METHODS IN PHYSICS

Dubna, Russia, July 28 - August 2, 1997

APPLICATION FORM

SURNAME: .....

FIRST NAME(S): .....

TITLE: MR MS DR PROF

MAILING ADDRESS: .....
.....
Phone: .....Fax: .....
Telex: .....E-mail: .....
Citizenship:.....
Passport number and date of expiry: .....
Day, month and year of birth .....

I plan to attend the conference: Yes Maybe

I plan to submit a contribution: Yes Maybe No

Preliminary title of the contribution:.....
.....

Please choose one of the following fields:
1. Separation of variables in classical and quantum mechanics [ ]
2. Finite dimensional integrable systems [ ]
3. Integrability in gravity and string theory [ ]
4. Nonlinear phenomena [ ]
5. Geometric methods in quantum theory [ ]
6. Quantum algebras and quantum groups [ ]
7. Noncommutative and quantum geometry [ ]
8. Special functions and group representations [ ]
9. Periodic and aperiodic structures [ ]
10. Quantum Hall effect [ ]
11. Optics, quantum optics and coherent states [ ]
12. Symmetry methods in nuclei [ ]
13. Exotic Coulomb systems in external fields [ ]
14. Mathematical methods [ ]