

JOINT INSTITUTE FOR NUCLEAR RESEARCH
RUSSIAN ACADEMY OF SCIENCES

BOGOLYUBOV CONFERENCE
«PROBLEMS OF THEORETICAL
AND MATHEMATICAL PHYSICS»

Moscow–Dubna
September 2–6, 2004

CONFERENCE PROCEEDINGS

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ОБЪЕДИНЕННЫЙ ИНСТИТУТ ЯДЕРНЫХ ИССЛЕДОВАНИЙ
РОССИЙСКАЯ АКАДЕМИЯ НАУК

БОГОЛЮБОВСКАЯ КОНФЕРЕНЦИЯ
«ПРОБЛЕМЫ ТЕОРЕТИЧЕСКОЙ
И МАТЕМАТИЧЕСКОЙ ФИЗИКИ»

Москва–Дубна
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ТРУДЫ КОНФЕРЕНЦИИ

Под общей редакцией
В. Г. Кадышевского
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FOREWORD

The Bogolyubov Conference *Problems of Theoretical and Mathematical Physics*, organized by the Russian Academy of Sciences (RAS) and the Joint Institute for Nuclear Research (JINR) was held on September 2–6, 2004 in Moscow at the V. A. Steklov Mathematical Institute of RAS (2 September) and in Dubna, JINR (September 2–6), Russia. The Bogolyubov Conference *Modern Problems of Mathematical and Theoretical Physics* was continued on September 13–17, 2004 in Kyiv, Ukraine.

The 2004 Conference was dedicated to the commemoration of the 95th anniversary of the birth of one of the outstanding mathematicians and theoretical physicists of XX century Nikolai Nikolaevich Bogolyubov (1909–1992). The last Bogolyubov Conference was held in Moscow–Dubna–Kyiv on September 27–October 6, 1999.

The programme of the Conference has covered the problems of mathematics and non-linear mechanics, theory of quantized fields, elementary particle physics, statistical physics, kinetics and condensed matter problems to which N. N. Bogolyubov made a fundamental contribution. The scientific sessions in Moscow and Dubna shared the common interdisciplinary spirit of the Bogolyubov Conferences, and brought together many scientists with the wide interests in mathematics and theoretical physics.

The Conference programme included memorial sessions, plenary talks and parallel sessions. We thank the speakers and all the participants who sent their contributions which allowed us to collect them in time. More than 20 plenary talks were devoted to the most actual problems from mathematics to high-energy physics. About 50 original representations of fundamental aspects of mathematics, physics and mechanics were presented at parallel and poster sessions.

We thank all the participants who, attracted by their interest to the Bogolyubov Conference, came together to make this meeting such a success. We would like to thank the heads and the staff of the V. A. Steklov Mathematical Institute of RAS, the Joint Institute for Nuclear Research for hosting the Bogolyubov Conference and providing the help. We extend special thanks to the members of the Local Organizing Committee and the staff without whose work the Conference would not be successful.

On behalf of the Organizing Committee we acknowledge the financial support of the UNESCO – Regional Bureau for Science in Europe (ROSTE), the Russian Foundation for Basic Research, the Heisenberg–Landau and Bogolyubov–Infeld Programmes.

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