

**INSTITUTE OF NUCLEAR PHYSICS
ACADEMY OF SCIENCES OF UZBEKISTAN**



MPNPc2009

THE SEVENTH INTERNATIONAL CONFERENCE

***MODERN PROBLEMS
OF NUCLEAR PHYSICS***

September 22-25, 2009

Tashkent, Uzbekistan

BOOK OF ABSTRACTS

Tashkent

**THE SEVENTH INTERNATIONAL CONFERENCE
MODERN PROBLEMS OF NUCLEAR PHYSICS**

September 22-25, 2009, Tashkent, Uzbekistan,

BOOK OF ABSTRACTS

**Institute of Nuclear Physics, Academy of
Sciences of Uzbekistan, 2009, 288 pages.**

SPONSORS
OF THE SEVENTH INTERNATIONAL
CONFERENCE
MODERN PROBLEMS OF NUCLEAR PHYSICS

Navoi Mining & Metallurgical Complex, Navoi, Uzbekistan

*The Abdus Salam International Center for Theoretical Physics,
Trieste, Italy*

SHINDONG Enercom Inc., Seoul, Korea

Chemotrade GmbH, Dusseldorf, Germany

Zimmerman BCS Stones GmbH, Harxhein, Germany

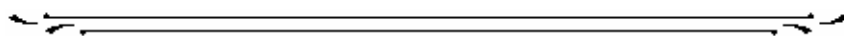
Joint Venture "TEZINTOM", Tashkent, Uzbekistan

"TEZLATGICH" Enterprise, Tashkent, Uzbekistan

"RADIOPREPARAT" Enterprise, Tashkent, Uzbekistan

"DORI-DARMON" Joint-Stock Company, Tashkent, Uzbekistan

*Organizers thank sponsors of conference, authors of reports
and all participants for their contribution to success of the
conference*



*Dedicated to 50th anniversary
of commissioning of Nuclear
Research Reactor WWR-SM
of Institute of Nuclear Physics
of Uzbekistan Academy of Sciences*

**THE SEVENTH INTERNATIONAL CONFERENCE
MODERN PROBLEMS OF NUCLEAR PHYSICS**

September 22-25, 2009, Tashkent, Uzbekistan

*Organized by
Institute of Nuclear Physics,
Academy of Sciences, Uzbekistan*

*Ўzbekiston Fanlar Akademiyasi
Yadro Fizikasi Instituti
WWR-SM tadqiqot yadro reaktorining
50 yilligiga bag'ishlanadi*

**ETTINCHI XALQARO ANJUMAN
YADRO FIZIKASINING HOZIRGI ZAMON MUAMMOLARI**

Sentyabr 22-25, 2009, Toshkent, Ўzbekiston

*Tashkilotchi:
Ўzbekiston Fanlar Akademiyasi
Yadro Fizikasi Instituti*

INTERNATIONAL ADVISORY BOARD

P.Adelfang (IAEA)	S.Lutpullaev (Uzbekistan)
V.Aksenov (Russia)	V.Matveev (Russia)
Z.Alper (Turkey)	T.Muminov (Uzbekistan)
D.Baye (Belgium)	M.Musakhanov (Uzbekistan)
L.Blokhintsev (Russia)	I.Neklyudov (Ukraine)
I.Bolshinsky (USA)	R.Peterson (USA)
K.Clausen (Switzerland)	J.Roglans (USA)
M.Comsan (Egypt)	K.Sanakulov (Uzbekistan)
N.Dadhich (India)	A.Sissakyan (JINR)
B.Gabaraev (Russia)	H.Swyen (Germany)
A.Garibov (Azerbaijan)	A.Tuleushev (Kazakhstan)
T.Hayward (UK)	I.Vishnevsky (Ukraine)
K.Kadyrzhanov (Kazakhstan)	B.S.Yuldashev (IAEA)
M.Kirk (USA)	H.Zimmermann (Germany)

ORGANIZING COMMITTEE

Chairman: U. Salikhbaev
Vice-Chair: Sh.Makhkamov
Scientific Secretary: K.Turdaliev

M.Abdukayumov	E.Ibragimova	A.Mukhtarov
B.Akhmedov	M.Kadyrova	M.Nishonov
S.Artemov	U.Khalikov	I.Sadykov
A.Avezov	I.Khidirov	E.Sergeeva
S.Bakiev	A.Khugaev	M.Tashmetov
S.Baytelesov	S.Khujaev	T.Tillaev
A.Dosimbaev	A.Kist	A.Umaraliev
S.Egamediev	Yu.Koblik	F.Umarova
Z.Fazilova	Z.Kurbanova	R.Umerov
M.Fazylov	O.Lutpullaev	R.Yarmukhamedov

Conference Secretariat:
Institute of Nuclear Physics, Ulugbek, Tashkent, 100214, Uzbekistan
FAZILOVA Zekie,
SERGEEVA Elena
Tel.: (99871)/(371) 289 31 41; 150 30 73
Fax: (99871)/(371) 150 30 80
E-mail: conferences@inp.uz; info@inp.uz;
<http://www.inp.uz/conf>

Dear Colleagues!

The Organising Committee greets all participants of the VII-th International Conference "Modern Problems of Nuclear Physics", which is hosted by the Institute of Nuclear Physics and is dedicated to the 50-th anniversary of the WWR-SM research reactor of the Institute of Nuclear Physics of the Academy of Sciences of the Republic of Uzbekistan (INP AS RU).

The first 2 MW research reactor in the Central Asia was put into operation in September 1959. Its upgrade to the power of 10 MW was completed in 1980, and at present, it is one of the most effectively utilized reactors of such a type. The high efficiency of this research reactor is conditioned by its wide use in national research and development programmes of fundamental and applied research projects. Dozens of experts from various research and educational institutions of the Republic actively participate in their realization. The INP AS RU has developed nuclear techniques for the production of radiopharmaceutical products designed for diagnostics and therapy and applied in various fields of medical science and practice. The demand of scientific and medical institutions of the Republic in radioisotope production is fully covered, whereas overstocks are exported to Germany, USA, Belgium, Ukraine etc.

We believe that the Seventh Conference "Modern Problems of Nuclear Physics" will allow us to enhance cooperation between scientists and experts by expanding and intensifying fundamental and applied foreground researches of nuclear and radiation physics. It will give opportunities to exchange views and ideas in such research areas as operation of large nuclear physics facilities, processing of mineral raw materials, elaboration of highly-effective techniques and technological means for saving energy and resources, environmental issues, nature management and ecological safety, nuclear analysis and elemental analysis of technogenic systems, development of novel information methods and techniques for monitoring nuclear and radioactive materials, and others. As a result, Uzbekistan scientists and their international colleagues can tighten and advance their research cooperation, by increasing it to a qualitatively higher level and by attracting more scientists of Uzbekistan, especially young researches, to cooperation with leading International research centers.

It is a great pleasure to mention that the Seventh International Conference «Modern Problems of Nuclear Physics», which has become traditional and is regularly held, has drawn attention of scientists and researchers representing 25 countries of the world. High reputation of scientists of the INP AS RU, their fundamental studies and applied developments are of great interest to experts in various fields of research, which is proved by their active participation in the Conference.

During the Conference, you can discuss achieved results as well as get acquainted with the ancient city of Tashkent celebrating its 2200-th anniversary.

We hope that the Conference will be fruitful for all of its participants, will promote tightening of the existing cooperation and assist in creation of new contacts between scientists from various parts of Globe.

The Organizing Committee expresses its gratitude to sponsors of the Conference:

Navoi Mining & Metallurgical Complex, Navoi, Uzbekistan

The Abdus Salam International Center for Theoretical Physics, Trieste, Italy

SHINDONG Enercom Inc., Seoul, Korea

Chemotrade GmbH, Dusseldorf, Germany

Zimmerman BCS Stones GmbH, Harxhein, Germany

Joint Venture "TEZINTOM", Tashkent, Uzbekistan

"TEZLATGICH" Enterprise, Tashkent, Uzbekistan

"RADIOPREPARAT" Enterprise, Tashkent, Uzbekistan

"DORI-DARMON" Joint-Stock Company, Tashkent, Uzbekistan

*Organizing Committee
of the Seventh International Conference
«Modern Problems of Nuclear Physics»*