INSTITUTE OF NUCLEAR PHYSICS ACADEMY OF SCIENCES OF UZBEKISTAN

INTERNATIONAL CONFERENCE

NUCLEAR SCIENCE AND ITS APPLICATION

September 25-28, 2012 Samarkand, Uzbekistan

BOOK OF ABSTRACTS

Tashkent-2012

INTERNATIONAL CONFERENCE

NUCLEAR SCIENCE AND ITS APPLICATION

September 25-28, 2012, Samarkand, Uzbekistan BOOK OF ABSTRACTS Institute of Nuclear Physics, Academy of Sciences of Uzbekistan, 2012, 476 pages.

INTERNATIONAL COMFERENCE

NUCLEAR SCIENCE AND ITS APPLICATION

September 25-28, 2012, Samarkand, Uzbekistan

Organized by

Institute of Nuclear Physics of Uzbekistan Academy of Sciences, Samarkand State University named after Alisher Navoi, Institute of Applied Physics at National University of Uzbekistan

CO-ORGANIZERS:

Turkish Atomic Energy Authority,
Institute of Nuclear Physics of National Nuclear Centre of
Kazakhstan,
National Academy of Sciences of Azerbaijan,
National Academy of Sciences of Kyrgyzstan

XALQARO ANJUMAN

YADRO FANI VA UNING TADBIOI

Sentyabr 25-28, 2012, Samarqand, Õzbekiston

TASHKILOTCHILAR:

Õzbekiston Fanlar Akademiyasining Yadro Fizikasi Instituti, Alisher Navoiy nomidagi Samarqand Davlar Universiteti, O'zbekiston Milliy Universiteti hoshidagi Amaliy Fizika Ilmiy Tekshirish Instituti

HAMKORLAR:

Turkiya Atom Energiyasi Agentligi, Qozog'iston Milliy Yadro Markazi hoshidagi Yadro Fizikasi Instituti. Ozarbayjon Respublikasi Fanlar Akademiyasi Qirg'iziston Respublikasi Fanlar Akademiyasi

SPONSORS

OF INTERNATIONAL CONFERENCE

NUCLEAR SCIENCE AND ITS APPLICATION

Center for International Security and Cooperation Stanford University, Stanford, USA

Asia Pacific Center for Theoretical Physics, Korea

Joint Venture "TEZINTOM", Tashkent, Uzbekistan

"RADIOPREPARAT" Enterprise, Tashkent, Uzbekistan

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

Chemotrade GmbH, Dusseldorf, Germany

Zimmerman BCS Stones GmbH, Harxhein, Germany

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

INTERNATIONAL ADVISORY BOARD

V.Aksenov (Russia) V.Matveev (JINR)

E.Batyrbekov (Kazakhstan) M.Musakhanov (Uzbekistan)

D.Baye (Belgium) Yu. Oganessian (JINR) L.Blokhintsev (Russia) A.Pogrebnjak (Ukraine) M.Comsan (Egypt) J.Roglans-Ribas (USA)

N.Dadhich (India) S.Saxena (UK)

E.Dianov (Russia) K.Sanakulov (Uzbekistan)

Yu.Dragunov (Russia) S.Sikorin (Belarus) F.Garner (USA H.Swyen (Germany) S.Hecker (USA) J. Virdee (CERN) A. Vodopianov (JINR) V.Inozemtsev (IAEA)

M.Kerimov (Azerbaijan) H.Zimmermann (Germany)

Zh.Zhotabaev (Kazakhstan) H.Lubatti (USA)

S.Lutpullaev (Uzbekistan)

ORGANIZING COMMITTEE

Chairman -U.Salikhbaev (Uzbekistan)

Co-chairmen -A.Garibov (Azerbaijan) K.Kadyrzhanov (Kazakhstan)

B.Dienbaev (Kyrgyz Republic)

Sh.Urmanov (Uzbekistan)

Z.Alper (Turkey)

U.Tashkenbaev (Uzbekistan)

Scientific secretary – Z.Fazilova (Uzbekistan)

A.Abdukayumov (Uzbekistan) N.Eshkobilov (Uzbekistan) R.Madatov (Azerbaijan) B.Abdurakhmanov (Uzbekistan) M.Fazylov (Uzbekistan) Sh.Makhkamov (Uzbekistan) M.Gurbanov (Azerbaijan) H.Akbiyik (Turkey) K.Mukimov (Uzbekistan) R.Alimov (Uzbekistan) R.Ibadov (Uzbekistan) T.Muminov (Uzbekistan) V.Alyokhina (Kyrgyz Republic) I.Sadykov (Uzbekistan) M.Kadyrov (Uzbekistan) A.Avezov (Uzbekistan) M.Kadyrova (Uzbekistan) M.Salimov (Uzbekistan) R.Beyshenkulova (Kyrgyz Republic) B.Kaldybaev (Kyrgyz Republic) A.Safarov (Uzbekistan) N.Burtebaev (Kazakhstan) E.Kenzhin (Kazakhstan) A. Tanrikut (Turkey) A.Dosimbaev (Uzbekistan) U.Khalikov (Uzbekistan) R.Umerov (Uzbekistan)

I.Koca (Turkey) O.Lutpullaev (Uzbekistan) (Kazakhstan) M. Vural (Turkey)

CONFERENCE SECRETARIAT:

V.Dzhazairov-Kakhramonov

Institute of Nuclear Physics, Ulugbek, Tashkent, 100214, Uzbekistan

FAZILOVA Zekie, SERGEEVA Elena, KURBANOVA Zinat

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

Dear Colleagues!

The conference on contemporary issues in Nuclear Physics organized by the Institute of Nuclear Physics of Academy of Sciences of Republic of Uzbekistan (INP) is being held for the 8th time. The conference turned into a traditional event and a recognized scientific forum of nuclear physicists, attracting growing attention on behalf of scientists and experts from numerous nuclear scientific centers. More than 10 years ago institutes working in the field of nuclear physics from Uzbekistan, Kazakhstan, Turkey, Kyrgyzstan and Azerbaijan agreed to hold joint scientific conferences to summarize and share the outcomes of their scientific work. Joining efforts throughout these years, the partners have organized five international conferences on the theme of "Nuclear Science and its Application" held in Turkey, Kazakhstan, Uzbekistan and Azerbaijan. This year, recognizing resemblance of the themes, country coordinators have decided to link the regular conferences of INP, Institute of Nuclear Physics of National Nuclear Centre of Republic of Kazakhstan (INP NNCRK), and Eurasian conference, and organize joint conference in Samarkand State University named by Mirzo Ulugbek, in the city of Samarkand that has deep and ancient traditions of supporting and developing sciences.

You have the book of abstracts of the conference organized by INP, Samarkand State University, and Institute of Applied Physics of National University of Uzbekistan in cooperation with Turkish Atomic Energy Authority, INP NNCRK, National Academies of Sciences of Azerbaijan and Kyrgyzstan.

Along with the traditional themes covered at our conferences, such as: fundamental and applied nuclear physics, nuclear technologies, radiation physics of condensed conditions, application of nuclear-physical methods, there will be a special session on nonproliferation. This session will be held under the auspices of Centre for International Security and Cooperation of Stanford University. The session presentations of experts from Central Asia, will be aimed at issues of cooperation and nonproliferation in the region, as well as development of international cooperation in the area of peaceful atomic energy use.

I hope that the following "Nuclear Science and its Application" conference will serve to enhance the understanding of the complex problems of fundamental and applied nuclear physics and nuclear technology, and contribute to their successful development.

I wish all the participants successful work, first - hand experience while interacting with colleagues, and enjoyable time in wonderful city of Samarkand.

Have a successful and productive work!

On behalf of the Organizing committee we would like to express our acknowledgements to the sponsors of the Conference:

Center for International Security and Cooperation Stanford University, Stanford, USA

Asia Pacific Center for Theoretical Physics, Korea Joint Venture "TEZINTOM", Tashkent, Uzbekistan "RADIOPREPARAT" Enterprise, Tashkent, Uzbekistan "DORI-DARMON" Joint-Stock Company, Tashkent, Uzbekistan Chemotrade GmbH, Dusseldorf, Germany Zimmerman BCS Stones GmbH, Harxhein, Germany

> Umar Salikhbaev Chairman of the Organizing Committee