Argentina 2008

Strengthening Radiation Protection Worldwide

www.irpa12.org.ar

IRPA 12
19 - 24 October 2008
BUENOS AIRES
First Announcement
IRPA 12 will take place in Buenos Aires, a vibrant modern city with rich traditions from its multicultural populace and its place in history. A part of that history has been the development of an indigenous nuclear industry over the past few decades, an industry which is becoming a leader in design and export of nuclear technology, in particular research reactors.

Argentina is however not only known for its nuclear technology, but also for its contribution to radiation safety. The contribution has come both in terms of the development of radiation safety philosophy, from such as the late Dan Benison, one of the icons of modern radiation safety thinking, and from its substantial efforts in the training of radiation safety professionals within the Latin American region. True to the Argentinean tradition of innovation, IRPA 12 will be different and special. It will be the first IRPA international congress in Latin America and will take place at a time of rapid and important developments in the radiation safety world. All the signs are that the nuclear industry will expand considerably, particularly in the more developing regions of the world.

Security related concerns become an increasing factor, the need for rationality in protection between artificial and natural sources is increasingly recognised, increasing use is being made of radiation in innovative medical applications, past legacies of contaminated sites and poorly managed radioactive waste remain, yet fewer professionals are available to deal with these issues.

These circumstances highlight the pressing need to renew the radiation protection community in many countries to face the challenges of the future. By the time of IRPA 12 new recommendations from ICRP will most likely be on the table and the Congress will provide an ideal opportunity to debate their implications and how to adopt them. Abel Gonzalez as Vice President for Congress Affairs together with Eduardo Gallego as Chairperson of the International Congress Programme Committee have undertaken to steer the organisation of IRPA 12 to provide a meeting that will provide a clear insight into where radiation protection stands and what direction we need to move to broaden our world of radiation safety to engage all professional and interested parties to ensure that the beneficial uses of radiation continue to be exploited in a safe manner and to the benefit of all people.

I give my thanks to all the hundreds of people who will assist with the planning and execution of IRPA 12 both in Argentina and from around the world. This will be a high calibre and important meeting and I urge all radiation safety professionals and interested persons to support the Congress and hope to see you in Buenos Aires.

Phil Metcalf
President of IRPA
Dear colleagues and friends from all over the world,

I am pleased to invite you to attend the 12th International Congress of the International Radiation Protection Association (IRPA 12), which will take place in Buenos Aires, Argentina, in October 2008. I encourage your participation in IRPA 12, to make together a reality the Congress motto: “strengthening radiation protection worldwide”.

By attending the Congress you will profit from a renewed scientific programme that will give an exceptional overview of the latest developments in the science and practice of protection both against ionizing and non-ionizing radiation. You will also benefit from a new programme of refresher courses. You will moreover benefit from the extra bonus of enjoying the outstanding cultural life of Buenos Aires. This capital city is a fascinating melting pot of immigrants from all over the world who transformed a colonial village into an international metropolis. This intermixed culture was the genesis of tango, the ultimate artistic expression of the city. While you are refreshing your radiation protection knowledge, you will be able to try tango in its birthplace!

At www.irpa12.org.ar you will find a description of the major features of IRPA 12. The Congress agenda will promote a full and wide engagement of the radiation protection profession. From scientists and research institutions to practitioners and industry, all will have a place in the programme.

The Congress will focus on three major areas:

1. **The epistemology of radiation**, namely the methods, the validity and the scope of current knowledge of the physical and biological sciences in relation to the effects of radiation exposure.
2. **The paradigm of radiation protection**, namely the conceptual model for keeping people safe from the health effects due to radiation exposure.
3. **The practice of radiation protection**, namely the actual application and use of radiation protection plans and methodologies by practitioners and industries making use of radiation.

Several **Technical Sessions** addressing current topical issues will cover these areas. Each Technical Session will feature a **Keynote Speaker** who will summarize the status of the issue, a Rapporteur who will summarize the **Contributed Papers** submitted to the Congress on that issue, and an **Open Forum** where the session’s participants can discuss the contributions to the Session. The Chairpersons of the Technical Sessions will sum up the various outcomes in an ad hoc **Concluding Plenary Session**.

Every Contributed Paper will be published and can be presented by the author at **Poster Sessions**. These Sessions will also serve as an opportunity to bring together professional counterparts from around the world to hold insightful discussions and to forge new relationships within the international radiation community.

The Congress will also feature: **Working Lunches** where highly qualified speakers will address new issues of general interest; **Background Plenary Sessions** where the content and directions of the current and future work of international organizations will be presented; a full programme of **Refresher Courses** that will now cover professional accreditation; and a **Technical Exhibition** to keep us abreast of technical developments. The **Sievert Award** and the **Gold Medal Ceremonies** will certainly be the touching moments of the event. The IRPA business programme will be the natural forum to discuss topics of interest for national societies. And last but not least, a full social programme will make your evenings unforgettable!

We will make IRPA 12 an event to remember with your active participation and support. We invite you to include the web page of the Congress in your favourites and to visit the site regularly for updates and latest news about the organization of the Congress.

I look forward to welcoming you in Buenos Aires in October 2008.

Abel J. González
President of IRPA 12 Congress
President of the Congress

González Abel J.  Argentina
Vice President IRPA for Congress Affairs

International Congress Programme Committee (ICPC)

Gallego Eduardo  Spain
Chairperson
Pérez Maria del Rosario  Argentina
Scientific Secretary

Ahlbom Anders  Sweden
Arias César  Argentina
Bolshov Leonid  Russia
Bourguignon Michel  France
Cancio David  Spain
Cardis Elisabeth  Canadá
Corbett Robert  U.K.
Czarwinski Renate  Germany
Diaz Eduardo  Argentina
Doi Masahiro  Japan
Fong Ruby  U.K.
Goldschmidt Adrián  Argentina
Guilmette Raymond  U.S.A.
Hefner Alfred  Austria
Hunt John  U.K.
Khoury Helen  Brazil
Kosako Toshio  Japan
Lazo Edward  U.S.A.
Leciñana Alejandro  Argentina
Loy John  Australia
Magnusson Sigurdur  Iceland
Massera Gustavo  Argentina
McKinlay Alastair  U.K.
Mrabit Khammar  Morocco/IAEA
Niu Shengli  China
Perks Christopher  U.K.
Pisarev Mario  Argentina
Saint Pierre Sylvain  France
Schneider Thierry  France
Schuhmacher Helmut  Germany
Sjoblom Kirsti-Liisa  Finland
Sobehart Leonardo  Argentina
Stern Warren  U.S.A.
Tarzian Carlos  Argentina
Tsela Alex  South Africa
Vaño Eliseo  Spain
Vecchia Paolo  Italy
Wilkinson, William  U.K.
Zhou Ping-Kun  China

International Congress Organising Committee (ICOC)

González Abel J.  Palacios Elias  Chairman
Palacios Elias  Vice Chairman and CEO

Bomben Ana  General Supervision
Massera Gustavo  Scientific Supervision
Goldschmidt Adrian  Technical Exhibition Supervision
Fernandez Moreno Sonia  Institutional Relations Supervision
Thomasz Esteban  Organisation Supervision
Esmerian Alberto  Treasury Supervision
Lerner Ana and Madariaga Marcelo  Website Supervision

Touzet Rodolfo  IRPA General Co-ordinator and Quality Assurance
Josito de Aquino  General Co-ordinator for Brazil
Telleria Diego  Treasurer
Papadopulos Susana  General Secretary

Pérez Adrián  General Co-ordination
Dominguez Cristina  Legal Aspects
Menossi Carlos, Gigli Noemi and Sacc Ricardo  Refresher Courses
Terigi Gabriel and Chahab Martin  Institutional Relations
Olivelli Carina and Alvarez Silvia  Publications
Cesario Pablo  Social Programme
Truppa Walter  Technical Exhibition
Rudelli Máximo  Promotion
Dubner Diana and Michelin Severino  ICPC Assistants
Arnaud Marta  Website Assistant
Echenique Luis and Lee Horacio  Audit

International Congress Support Committee (ICSC)

Mrabit Khammar  Chairperson
Thematic areas for papers

1- FIRST PART: EPISTEMOLOGICAL BASIS OF IONISING AND NON-IONISING RADIATION PROTECTION
Method, validity and scope of current scientific knowledge on radiation exposure

1 - 1. Characterisation of exposure, ionising radiation
a. The development of quantities and units
b. Dosimetry and microdosimetry
c. Weighting for radiation protection purposes
d. Measuring and instrumentation
e. Assessing personal doses from external radiation
f. Assessing personal doses from internal contamination
g. Assessing patient doses
h. Dose reconstruction
i. Biological dosimetry
j. Monitoring and assessment
k. Assessing environmental exposure
l. Assessing environmental contamination
m. Harmonising the quantification of radiation exposure

1 - 2. Characterisation of exposure, non-ionising radiation
a. Developments of quantities and units relevant to radiation protection
b. Dosimetry
c. Weighting factors
d. Measurement and instrumentation
e. Developments in international standards for assessing EMF exposure

1 - 3. Biological effects and epidemiological results
a. Progress in understanding molecular biology, gene-role and cell function
b. Health effects on tissues and organs
c. Hereditary effects
d. Effects attributable to prenatal exposure
e. Epidemiology
f. Health-risk estimates
g. Radiological impact on non-human species

2- SECOND PART: THE PARADIGM OF RADIATION PROTECTION
The conceptual model for keeping people safe and secure

2 - 1. Radiation protection recommendations and standards
a. General principles and criteria for protection against non-ionising radiation
b. General principles and criteria for protection against ionising radiation
c. Basic administration of radiation safety
d. Promoting National Regulatory Infrastructure
e. Occupational radiation protection
f. Radiological protection of patients and volunteers
g. Public radiation protection
h. Framework for non-human species
i. Specific issues on Safety & Security of radioactive sources
j. Emergency preparedness and response

2 - 2. International undertakings and cooperation
a. International Standards
b. Legally binding undertakings and other international instruments
c. Education and training in radiation protection
d. Co-ordination of research and development: focus areas
e. Fostering information exchange
f. Technical co-operation and assistance in radiation protection
g. IAEA and other International appraisals
h. Participation of stakeholders in the decision-making process
i. Public communication and outreach
3 - THIRD PART: RADIATION PROTECTION IN PRACTICE

3 – 1 Non-ionising radiation practice
a. Power lines vs. domestic exposure
b. Mobile telephony
c. Electric transportation
d. Electronic personal identification
e. Electronic article surveillance

3 – 2 NORM industries
a. Natural versus "artificial" radiation
b. Exclusion and exemption for natural occurring radioactive materials
c. Framework for work activities
d. Jurisdiction at local and national level
e. Case studies
f. Application of international standards

3 – 3 Nuclear industry
a. General issues
b. Occupational radiation protection
c. Environmental radiation protection

3 – 4 Medical practices (radiodiagnosis, radiotherapy and nuclear medicine)
a. Design, shielding and monitoring of new medical radiation facilities
b. Assessment and monitoring of dose
c. Addressing the issue of optimisation
d. Lessons learnt from incidents, near-misses and accidents
f. Education and training

3 – 5 Industrial applications of ionizing radiations
a. Isotope production and processing
b. Accelerators for industrial uses
c. Isotopic tracers in industrial processes
d. Industrial instrumentation with radioactive sources
e. Non-destructive testing: gammaraphy, radiography, neutronography, etc.
f. Moisture and density measurement in soils
g. Other applications

3 – 6 Application of radiation for security and customs purposes
a. Human screening
b. Baggage screening
c. Cargo screening
d. Radiofrequency identification devices
e. Electronic article surveillance devices
f. Magnetic field metal detecting devices
g. Terahertz devices
h. New technologies

3 – 7 Application of radiation for research purposes

3 – 8 Transport of radioactive material
a. Regulations
b. Package design
c. Package approval
d. Package operation and maintenance
e. Radiation protection programme
f. Emergency response
g. Management system and quality assurance
h. Security
i. Education and training

3 - 9 Stakeholders’ involvement
a. Development of ethical and legal frameworks for stakeholder engagement
b. Development of processes and tools for stakeholder engagement
c. Feedback experiences in different domains of Radiation Protection
## IRPA 12 Preliminary Schedule

**Registration**
- **Monday (20 October 2008)**
  - 08:00: Opening & Sievert Lecture
  - 09:00: Coffee Break / Technical Exhibition

**Background Plenary I**
- Status of levels and effects of ionising radiation (UNSCEAR)
- 11:00:茶歇 / 技术展览

**Background Plenary II**
- Towards Globalising ICRU Quantities
- 14:30:茶歇 / 技术展览

**Background Plenary III**
- Protection Against NIR (ICNIRP)

**Background Plenary IV**
- Protection Against Ionising Rad. (ICRP)

**Round Table ICRP/ICNIRP**
- RP in nuclear fuel cycle facilities
- NIR power lines
- RP in transport of radioactive materials

**Concluding Plenary I**
- Towards Global Radiation Protection (Conclusions and Recommendations)

**Concluding Plenary II**
- Radiation Safety In Practice

**Concluding Plenary III**
- Biological Effects

**Concluding Plenary IV**
- Characterisation of Exposure

**Concluding Plenary V**
- Biological Effects

**Concluding Plenary VI**
- Public Protection & Emergencies

**Gold Medal & Closing Ceremony**
- Use of radiation in medicine and scientific research

**Social Events**
Important Dates

<table>
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<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Early Registration Opening</td>
<td>October, 2006</td>
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<tr>
<td>Second Announcement and Call for Papers</td>
<td>May, 2007</td>
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<tr>
<td>Abstracts Reception Deadline</td>
<td>October, 2007</td>
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<td>Notification of acceptance</td>
<td>March, 2008</td>
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<td>Submission of full papers</td>
<td>July, 2008</td>
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<td>IRPA 12 Congress</td>
<td>19-24 October, 2008</td>
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Congress Language

The official language of the Congress will be English. The submitted abstracts, full papers, general correspondence and Congress sessions will be in English.

Publication of the Proceedings

Full papers of the IRPA 12 Congress will be published on a CD-rom and a book of abstracts will be provided.

Congress Venue

The Congress will take place at a Convention Center in Buenos Aires, located in the heart of the city and overlooking the Río de la Plata. Facilities available will allow an easy attendance to plenary and topical sessions.

Refresher courses

As is traditional in all IRPA Congresses, a set of morning refresher courses led by distinguished specialists will take place. This will allow all participants to update knowledge on several subjects themes related to Radiological Protection.

Social Programme

There will be an attractive social programme for participants and accompanying persons to enjoy the cultural life and beauties of Buenos Aires.

Pre-registration

Colleagues are kindly invited to fill in the Pre-registration form at the Congress website.

Registration

Available through the website from October 1, 2006.

Registration Fees

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<td>ACCOMPANYING PERSONS</td>
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Further information

The Congress website contains more information about the Congress and the most important tourist attractions of Argentina with their corresponding links.

Argentina Radiation Protection Society
Sociedad Argentina de Radioprotección
Av. del Libertador 8250, PB. oficina 122 C1429BNP Ciudad de Buenos Aires, Argentina
Phone/Fax: (54-11) 4704-1472
E-mail: sar@sede.arn.gov.ar    www.sar.radioproteccion.org.ar
Buenos Aires

Congress venue

Buenos Aires, an amazing city that hosts all kinds of international meetings

Buenos Aires, a city where people coming from all over the world feel at home
Argentina, a country with unique landscapes and so many activities to enjoy...

[Map of South America with various locations marked, including:
- Andes mountains
- Moon valley
- Train to the clouds
- Iguazú falls
- Buenos Aires city
- Perito Moreno Glacier
- Valdés peninsula
- Nahuel Huapi Lake]

These photos have been provided by the Tourism Secretary of Argentina.