



# IRPS BULLETIN

Newsletter of the International Radiation Physics Society

Vol 29 No 2

June, 2015

## 13th International Symposium on Radiation Physics

Sep 7-11, 2015 Beijing, China

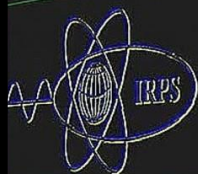
Deadline for abstract and poster: July 1st 2015

Early Bird Registration : July 7, 2015

Notification of accepted oral and  
poster presentations: Aug 1, 2015

vacuum

water



INTERNATIONAL RADIATION  
PHYSICS SOCIETY

## IRPS COUNCIL 2012 - 2015

**President :** Ladislav Musilek (Czech Republic)

### Vice Presidents :

Africa & Middle East : M.A. Gomaa (Egypt)  
Western Europe : J. Rodenas (Spain)  
Central & Eastern Europe : I. Krajcar Bronic (Croatia)  
F.S.U. : I.V. Shamanin (Russia)  
North East Asia : (P.R.China)  
South East Asia : S.C. Roy (India)  
Australasia : C.T. Chantler (Australia)  
South & Central America : M. Rubio (Argentina)  
North America : L. Hudson (USA)

**Secretary :** J.E. Fernandez (Italy)

**Treasurer :** W. Dunn (USA)

**Chair, Advisory Board :** O. Goncalves (Brazil)

**Vice President, IRRMA :** R. Gardner (USA)

### Executive Councillors:

R.P. Hugtenburg (UK) P.K. Sarkar (India)  
E.M.A. Hussein (Canada) A. Sood (USA)  
I. Lopes (Portugal) J. Tickner (Australia)  
F. Salvat (Spain) P.K.N. Yu (Hong Kong)

## EDITORIAL BOARD

### Editors

Ron Tosh Larry Hudson  
Phone : +1 301 975 5591 Phone : +1 301 975 2537  
email : rtosh@nist.gov email : larry.hudson@nist.gov  
NIST, 100 Bureau Drive, Stop 8460  
Gaithersburg, MD 20899-8460, U.S.A.

### Associate Editors

D.C. Creagh S.A. McKeown  
email : Dudley.Creagh@canberra.edu.au Shirley.McKeown@canberra.edu.au  
Faculty of Education Science Technology and Mathematics  
University of Canberra  
Canberra ACT 2601 Australia

## MEMBERSHIPS

### Membership Secretary

Elaine Ryan  
Department of Radiation Sciences  
University of Sydney  
75 East Street ,(P.O. Box 170)  
Lidcombe, N.S.W. 1825, Australia  
email: elaine.ryan@sydney.edu.au

IRPS BULLETIN : ISSN 1328533

Printing and postage of the Bulletin, and support for the IRPS web pages, are courtesy of the University of Canberra, Canberra, A.C.T, Australia

Internet Address : <http://www.canberra.edu.au/irps>

## Contents of this Journal

|   |                |
|---|----------------|
| <b>FROM THE EDITORS</b> : .....   | Page 3         |
| <b>SPECIAL NOTE FROM THE PRESIDENT</b> : .....  | Page 4         |
| <b>ISRP-13</b> : Prof Dong Yu-Hui CV : .....  | Page 5         |
| Updated form for Election of Officers, 2015 : .....   | Page 6         |
| Preparation of ISRP-13 : .....  | Pages 7 to 22  |
| Ways to submit an abstract for ISRP-13 : .....  | Page 23        |
| <b>REPORTS</b> : Tenth Symposium of the Croatian Radiation Protection Association with international participation: (Prof. Krajcar) ..... | Page 24        |
| First International Conference on Radiation Physics and its Applications : (Prof. Gomaa) .....  | Page 29        |
| <b>IRPS CONSTITUTION</b> : Voting paper and information for the proposed revised IRPS Constitution : .....                                | Page 34        |
| The proposed revised Constitution : .....   | Page 35        |
| Conferences : .....   | Page 31        |
| Calendar : .....  | Page 41        |
| Contacts and Membership Information : .....   | Page 42        |
| Membership Registration Form : .....  | Last two pages |



## From the Editors

Dear Reader,

Welcome to the June 2015 issue of the Bulletin of the International Radiation Physics Society. This is the last issue before our triennial International Symposium on Radiation Physics (ISRP-13) to be held in Beijing. The dates are 7 to 11 September 2015, *in contrast to the more extended dates we used in the previous issue*. For the latest information about registering and participating in the Symposium, see the official web site, as it continues to be refined:

<http://isrp13.ustc.edu.cn/dct/page/1>

Perhaps the eve of another ISRP is an appropriate moment to recall something of the origins of the ISRP series itself.

Professor Ananda Mohan Ghose and John Hubbell were sitting in a swing in the back yard of the home of the latter in Rockville, Maryland, USA. Dr. Ghose proposed an international conference in radiation physics that would uniquely bring together scientific talents from the developed and developing nations of the world. This became ISRP-1 in 1974, chaired by Ananda Ghose at the Bose Institute in Calcutta. This "global radiation physics family", to quote John Hubbell, has had the added result of "inevitably creating deep personal friendships and trust between representatives of very-different cultures and political systems."

Thank you all for contributing to this ongoing endeavour.  
Please see the President's foreword that asks us each to participate

*Larry Hudson and Ron Tosh*

|         | Location       | Year | Chair                |
|---------|----------------|------|----------------------|
| ISRP-1  | Calcutta       | 1974 | Ananda Ghose         |
| ISRP-2  | Penang         | 1982 | Ananda Ghose         |
| ISRP-3  | Ferrara        | 1985 | Ernesto Casnati      |
| ISRP-4  | Sao Paulo      | 1988 | Ivan Nascimento      |
| ISRP-5  | Dubrovnik      | 1991 | Ante Ljubicic        |
| ISRP-6  | Rabat          | 1994 | Mohamed Berrada      |
| ISRP-7  | Jaipur         | 1997 | Bikash Sinha         |
| ISRP-8  | Prague         | 2000 | Ladislav Musilek     |
| ISRP-9  | Capetown       | 2003 | Dan Jones            |
| ISRP-10 | Coimbra        | 2006 | Isabel Lopes         |
| ISRP-11 | Melbourne      | 2009 | Christopher Chantler |
| ISRP-12 | Rio de Janeiro | 2012 | Odair Gonçalves      |
| ISRP-13 | Beijing        | 2015 | Dong Yu-Hui          |

## SPECIAL NOTE FROM THE PRESIDENT

Dear colleagues,

Please let me draw your attention to two administrative matters that are of concern to the agenda of our Society.

You probably know that a member of our Executive Council, Vice-President for North-East Asia, Professor Ziyu Wu, recently passed away. He was a candidate for this same position on the Council for the next three-year period. We are profoundly sorry that we lost an outstanding scientist and a good colleague. Accordingly, we need to replace him on the election ballot at this time. His colleague Professor Yu-Hui Dong is willing to serve in his stead. Therefore, included in this issue of the Bulletin are a short CV of Professor Dong and a revised version of the ballot. We hope that, if elected, Professor Dong will become an active member of the Council, enriching our discussions and the life of the Society.

Professor Dong replaces Professor Wu also as the Chair of the 13<sup>th</sup> International Symposium on Radiation Physics (ISRP-13), which will take place in September of this year in Beijing, China. I believe that this event will be an opportunity for Professor Dong to meet with most of you. The nice Beijing Conference Center and your colleagues both from China and from all over the world are waiting for you.

The second administrative matter concerns the Constitution of IRPS, which should govern the activities of our society. This Constitution was written long ago and even though amended over time, it does not currently reflect the practice and activities of the Society. Therefore, with colleagues and members of the IRPS Council, this document has been discussed and underwent several iterative versions. At the last Council meeting the final

revised version was formally adopted. As a final step, it should be approved by the membership of the Society. To give each member of the Society the possibility of expressing agreement or non-agreement with this revised Constitution, we have chosen the correspondence form of voting. Another possibility, approval by the General Assembly of the Society, seems less democratic, as we cannot expect that all members will attend ISRP-13 and take part at the General Assembly that is always held at the end of the symposium. This method of voting on any future amendments to the Constitution is also included in the revised text.

So, please be so kind and send both ballots (election and Constitution) completed, to the IRPS Secretary, Prof. Jorge E. Fernandez, at your earliest convenience, but not later than the end of August of this year.

Please use either

e-mail [jorge.fernandez@unibo.it](mailto:jorge.fernandez@unibo.it)

or standard mail

Prof. Jorge E. Fernandez  
University of Bologna  
Department of Industrial Engineering DIN  
Via dei Colli 16, 40136 Bologna, Italy.

Thank you for your cooperation. I am looking forward to meeting you soon in Beijing.

For the IRPS Council:

*Ladislav Musilek*

President

*(Professor Dong's CV and the updated Election Form are on the following pages.*

*The amended Constitution and the form for your vote for the Constitution are on pages 34 to 40)*



## CV for Professor Dong Yu-Hui



### Prof. Dong Yu-Hui

is the Deputy Director of the Multidisciplinary Research Centre, Institute of High Energy Physics, Chinese Academy of Sciences. He is also member of the Chinese Crystallography Society and Macro-molecular Crystallography committee, the Biophysics Society of China and Photobiology committee.

In 1990, he obtained a B.S. in Physics from Sun Yat-Sen University (Zhongshan University), Guangzhou, China. He obtained a Ph.D. in Physics at the Beijing Synchrotron Radiation Facility, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing, China, in 1995. During 1995-2000, he was a Postdoctoral Research Associate at the Institute of Physics, Chinese Academy of Sciences, Beijing, China and University of Trento, Italy.

In 2001 he became Professor of condensed matter physics at the Institute of High Energy Physics, Chinese Academy of Sciences.

Teaching activities have included lectures in MSc and PhD courses and supervising of MSc and PhD theses.

His research activities focus on methodological research in structure determination of proteins and protein complexes based on synchrotron radiation. The main research fields are:

- The structure-function relationship of proteins and protein complexes by synergic method on synchrotron radiation, e.g., protein crystallography, SAXS, SR-CD;
- Methods in structure determination of proteins;
- The structure and function of proteins involved in DNA repair and metabolism.

Professor Dong has authored/co-authored 3 chapters in books written by teams, and about 90 scientific papers in journals and conferences.

He is the reviewer for *Scientific Report*, *Acta Crystallographica Section A: Foundations of Crystallography*, *Acta Crystallographica Section D: Biological Crystallography*, *Acta Crystallographica Section F: Structural Biology and Crystallization Communications*, *Journal of Applied Crystallography*, *Journal of Physical Chemistry*, *Journal: Physica B*, *Solid State Sciences*, *Chinese Physics Letters*; also for proposals applied to National Natural Science Foundation of China; National Basic Research Program of China (973 Program), Ministry of Science and Technology; ECHO Grants - Chemistry in Relation to Biological and Medical Sciences, Netherland.

He is the Co-organizer of "Lecture Course on Structural and Biophysical Methods for Biological Macromolecules in Solution" (Sponsored by European Molecular Biology Organization), Beijing Synchrotron Radiation Facility, Beijing, April 28- May 5, 2011.

# ELECTION BALLOT FORM

For all posts, except those of executive councillors, vote for one by marking the appropriate box.  
 For executive councillors, you may vote for up to five candidates who are running for the full six-year term.  
 For all positions you may write in names of other members of the Society and cast your ballot for them.

**President (vote for one)**

Christopher Chantler (Australia)   
 \_\_\_\_\_

**Secretary (vote for one)**

Jorge Fernandez (Italy)   
 \_\_\_\_\_

**Treasurer (vote for one)**

William Dunn (USA)   
 \_\_\_\_\_

**Vice Presidents:**

**Western Europe (vote for one)**

Jose Rodenas (Spain)   
 \_\_\_\_\_

**Central & Eastern Europe (vote for one)**

Ines Krajcar Bronic (Croatia)   
 \_\_\_\_\_

**F.S.U. (vote for one)**

Sultan Dabagov (FSU)   
 \_\_\_\_\_

**North America (vote for one)**

Larry Hudson (USA)   
 \_\_\_\_\_

**South & Central America (vote for one)**

Marcelo Rubio (Argentina)   
 \_\_\_\_\_

**South East Asia (vote for one)**

Pradip Sarkar (India)   
 \_\_\_\_\_

**Vice Presidents (Continued) :**

**North East Asia (vote for one)**

Dong Yu-Hui (P.R. China)   
 \_\_\_\_\_

**Africa & Middle East (vote for one)**

Mohamed Gomaa (Egypt)   
 \_\_\_\_\_

**Australasia and Oceania (vote for one)**

James Tickner (Australia)   
 \_\_\_\_\_

**Industrial Applications (vote for one)**

Robin Gardner (USA)   
 \_\_\_\_\_

**Membership Officer (vote for one)**

Elaine Ryan (Australia)   
 \_\_\_\_\_

**Executive Councillors:**

**Six years term (vote for five)**

David Bradley (UK)   
 Odair Gonçalves (Brazil)   
 Esam Hussein (Canada)   
 Isabel Lopes (Portugal)   
 Tomáš Trojek (Czech R)   
 \_\_\_\_\_   
 \_\_\_\_\_

**Please use this ballot to vote. Instructions for return:**

- 1) **regular mail:** use the double-envelope system (place ballot in a small, unsigned envelope, and enclose the latter in a larger envelope, signing and printing your name and return address on the latter to authenticate your anonymous ballot), and send to:

Prof Jorge Fernandez, IRPS Secretary  
 Laboratory of Montecuccolino, Department of Industrial Engineering (DIN)  
 Alma Mater Studiorum, University of Bologna via dei Colli, 16-40136 Bologna Italy

- 2) **electronic submission:** scan your completed ballot and email the image to: [jorge.fernandez@unibo.it](mailto:jorge.fernandez@unibo.it)

**Ballots must be received by the Secretary by 7 August, 2015**

**The results will be announced at ISRP-13 in Beijing, China, 7-11 September, 20**



**13th International Symposium on Radiation Physics**

**Sep 7-11, 2015 Beijing, China**

**Institute of High Energy Physics (IHEP)**

**Chinese Academy of Sciences (CAS)**

**University of Science and Technology of China (USTC)**

**Chair : Yuhui Dong**

**Coordinator: Wangsheng Chu**

**17 April 2015**





## Introduction of ISRP13 conference



### Obituary



Prof. Dr. Ziyu Wu passed away in Hefei on March 23, 2015. Among his main credits, he won the National Outstanding Youth Fund in 2001, and was one of the chief scientists of the Chinese 973 Projects. He was chairperson of the Chinese National Professional Committee of Synchrotron Radiation, Vice-Chairman of the International Association of Radiation Physics, member of the Chinese Academy of International Cooperation Section Expert Committee, and member of the International Science Committee of Vacuum Ultraviolet and X-ray Physics (VUVX). He organized XAFS15 in Beijing in 2012 and VUVX2013 in Hefei as chairperson .



# Introduction of ISRP13 conference



## New Conference Chair for ISRP-13



**Prof. Dr. Yuhui Dong**

Deputy Director of Multidisciplinary Research Center

Institute of High Energy Physics

Chinese Academy of Sciences

19B Yuquan Road

Shijingshan district

Beijing 100049, China

Tel: +86-10-88233090

FAX: +86-10-88233201

*Email: [dongyh@ihep.ac.cn](mailto:dongyh@ihep.ac.cn)*



# Introduction of ISRP13 conference



**Website: <http://isrp13.ustc.edu.cn>**

The ISRP-13 will feature the current trends in the broad area of radiation physics and will bring together foremost scientists and researchers from around the world for this event. This conference will include two categories of invited talks. The first one is expected to be a review of a specific area, covering the historical development, the current situation and future perspectives within both experimental and theoretical aspects. The second will deal with the hot topics and projects in the Radiation Physics Area.





# Introduction of ISRP13 conference



## Topics:

- Theoretical investigation & Quantitative analytical techniques in radiation physics
- New radiation sources, techniques & detectors
- Absorption & Fluorescence spectroscopy (XAFS, XRF, Raman...)
- Applications in Material science, Nano-science & Nanotechnology
- Applications in Biology & Medical science
- Applications in Space, Earth, Energy & Environmental sciences
- Applications in Cultural heritage & Art
- Applications in Industry
- Radiation physics & Nuclear fuel cycle



# Introduction of ISRP13 conference



## Advisory Board

Dong Yu-Hui (China)  
Guoqing Xiao (China )  
Zhentang Zhao (China )  
Ladislav Musilek (Czech Republic )  
Jorge E. Fernandez (Italy )  
Christopher T. Chantler (Australia)  
David Bradley (UK)  
William L. Dunn (USA)  
Marcelo Rubio(Argentina)  
Mohamed Gomaa (Egypt)  
Suprakash C. Roy (India)

## Scientific Program Committee

Dong Yu-Hui (China)  
Guoqing Xiao (China )  
Zhentang Zhao (China )  
Ladislav Musilek (Czech Republic )  
Jorge E. Fernandez (Italy )  
Augusto Marcelli (Italy )  
Christopher T. Chantler (Australia)  
Dudley Creagh (Australia)  
Malcolm Cooper (UK)  
William L. Dunn (USA)  
Richard H. Pratt (USA)  
Lawrence Hudson (USA)  
David Bradley (UK)  
Marcelo Rubio(Argentina )  
Isabel Lopes (Portugal)  
Jose Rodenas (Spain)  
Ines Krajcar Bronic (Croatia )  
Sultan Dabagov (Italy/Russia )  
Peter K. N. Yu (China)



## Location of ISRP13 conference



Conference Location: The Beijing Conference Center,  
No.88 Laiguangying Westroad, Chaoyang District, Beijing



<http://www.beijingshuiyizhongxin.com/en/>





# Location of ISRP13 conference





# Location of ISRP13 conference



Meeting room for attendee  
more than five hundred



Meeting room for attendee  
more than three hundred



Meeting room for  
member activities

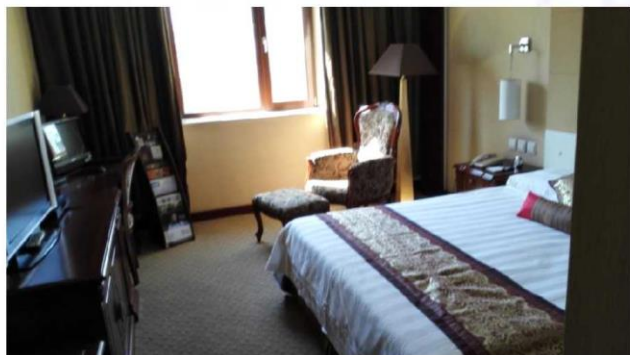


Receipt place





# Accommodation of ISRP13 conference

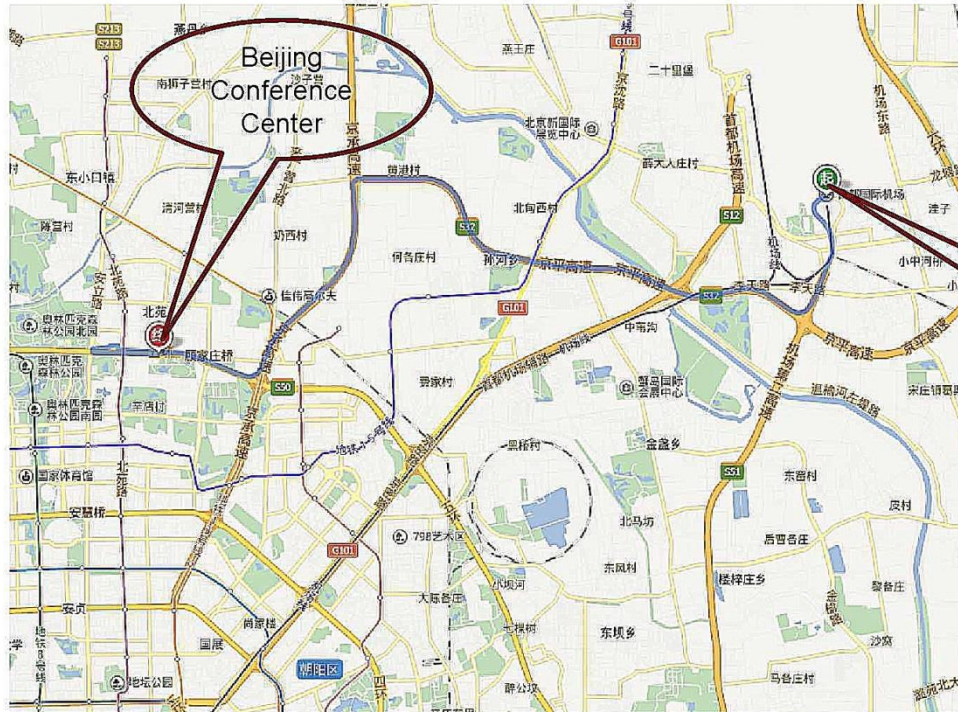


The price per night for one room: 65 US\$ and 100 US\$.

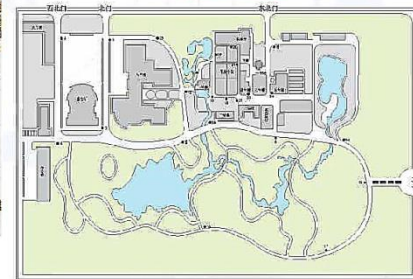




# How to go to the conference site



Beijing International Airport



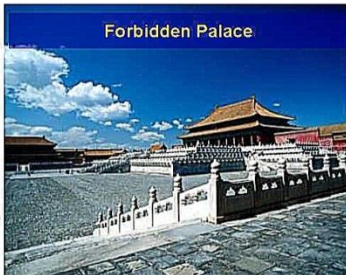
It is about 26.2 KM from the Beijing International Airport to Beijing Conference Center. Taxi is strongly Recommended.



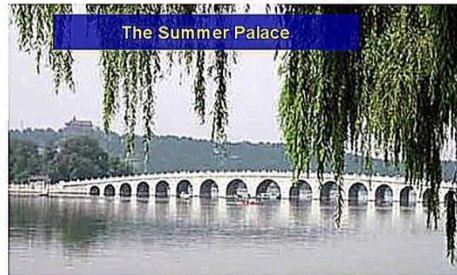
# Enjoyment in Beijing



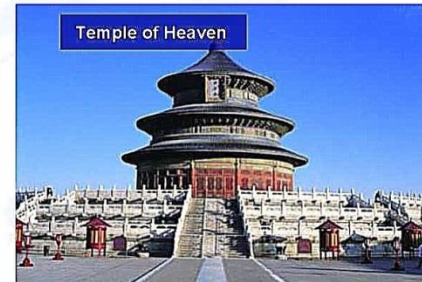
Beijing has a long history. More than 3000 years of culture left in Beijing a huge number of precious and unique treasures. The four sites in the right pictures are monuments recognized as world cultural heritages by UNESCO.



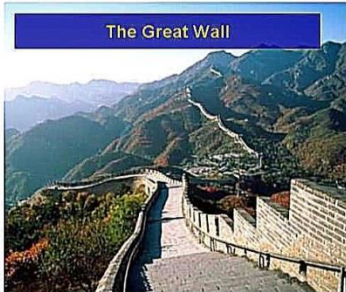
Forbidden Palace



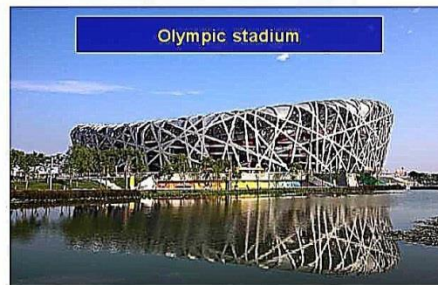
The Summer Palace



Temple of Heaven



The Great Wall



Olympic stadium



Olympic water cubic

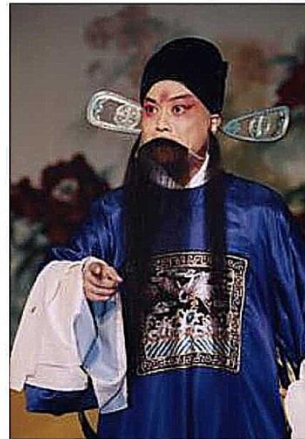




# Enjoyment in Beijing



We will explore the possibility to arrange both theatre and acrobatic performances. These arts are important element of the Chinese traditional culture.



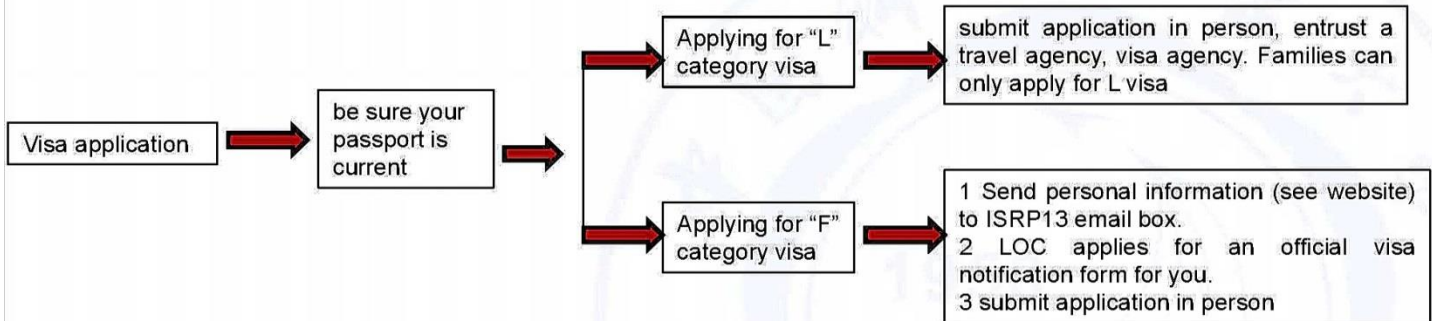


# Visa application of ISRP13 Conference



For detailed visa application instructions please visit:

[http://english.ihep.cas.cn/au/fv/201408/t20140815\\_125879.html](http://english.ihep.cas.cn/au/fv/201408/t20140815_125879.html)



- Please note that different countries or cities may require different visa application materials. Please visit the website of the local Chinese consulate or embassy to check the necessary materials before submitting them.
- Please note that the application of an official invitation letter requires at least ten work days. Applicants should initiate the process as early in their travel plans as possible, adequate time (> 1.5 month) should be allowed for processing visa applications.





# Budget & Fee of ISRP13 Conference



## Bank account for international transfer of registration fee

**A/C Name:** Institute of High Energy Physics Chinese Academy of Sciences

**Account Number:** 0200 0049 0901 4451 557

**Beneficiary's Address:**

19B Yuquan Road, Shijingshan District, Beijing, P. R. China

**Swift code:** I C B K C N B J B J M

**Bank Name:** Industrial and Commercial Bank of China, Beijing Municipal Branch, Beijing, P. R. China

**Bank Address:** NO.27 Taiping Road, Haidian District, Beijing, P.R. China



**Welcome to Beijing!**

# Submitting an abstract to the ISRP-13 Congress 2015

Author1<sup>1</sup>, Author2<sup>2,3</sup> and Author3<sup>3</sup>

<sup>1</sup>Research School of Physics and Engineering, The Australian National University, Canberra, ACT 0200 Australia

<sup>2</sup>Affiliation 2, City, Country

<sup>3</sup>Affiliation 3, City, Country

This is a recommended template for submissions to the 13<sup>th</sup> International Symposium on Radiation Physics [1] which will be held at the Beijing Convention Centre in the week September 7-11 in 2015.

**1) First step:** Copy this template and use it to prepare your abstract. Please do not change the page layout or the font format [2].

**2) Title, author list and affiliations:** You simply have to replace the dummy title, authors and affiliations with your own. The presenting author should be underlined as shown in this template and affiliations should be indicated by numbers.

**3) Main text:** Your main text has a two-column format and uses 10pt Times font. Equations can be added in your favourite way. For example, Eq. (1) below

$$i\hbar \frac{\partial \psi}{\partial t} = H\psi \quad (1)$$

was entered using Microsoft Equation. Figures should be captioned. If you have multiple figures we suggest that you present them as subfigures in a single image file and name them Fig.1a, Fig.1b, etc. In this way you save space for your text. Citations should be numbered and appear in brackets like this [2].

## 4) Format and submission steps:

- Stick to the page layout of this template. Don't try to change it and, most importantly, don't let Word try to change it for you!
- Generate a pdf file. Make sure that your pdf document fits in a single page.
- Submit the .pdf file to the abstract submission form on the web site [1].



Figure 1: A lake in the Jiuzhaigao National Park in winter

Thanks for reading the instructions and for submitting your abstract to the 2015 ISRP-13 Congress!

## References

[1] Visit <http://isrp13.ustc.edu.cn>

[2] Here is where you include your citation



**TENTH SYMPOSIUM OF THE CROATIAN RADIATION  
PROTECTION ASSOCIATION  
with international participation**

**Šibenik, Solaris - Hotel Jure  
15-17 April 2015**

***Prepared by:***

**Ines Krajcar Bronić, President, CRPA**

**Tomislav Bituh, President of the Organizing Committee**

**Branko Petrinec, President of the Scientific Committee**

The Tenth Symposium of the Croatian Radiation Protection Association (CRPA) with international participation was held from 15 to 17 April 2015 in Šibenik, Croatia. The symposium was organized by the CRPA in collaboration with the Institute for Medical Research and Occupational Health (IMROH), Ruđer Bošković Institute (RBI) and State Office for Radiological and Nuclear Safety (SORNS). The presidents of the Organizing and Scientific Committees were Tomislav Bituh and Branko Petrinec, respectively, from IMROH.

At the Opening ceremony, the Mayor of the city of Šibenik invited all participants to a guided tour through the oldest Croatian city with a visit to the fortress of St. Michael and the cathedral of St. Jacob (cultural heritage under protection of UNESCO). The tour was a gift of the City of Šibenik to the 10<sup>th</sup> Symposium of CRPA.

There were 93 participants in total: 73 from national scientific and research institutions, universities, health facilities, and private companies and 20 international participants from Bosnia and Hercegovina, Hungary, Slovenia, Serbia, Macedonia, and Qatar. They presented 65 papers: 28 poster and 37 oral presentations. All contributions were printed in the Proceedings edited by Branko Petrinec, Tomislav Bituh, Nevenka Kopjar, and Mirta

Milić. The proceedings is available at the CRPA web page <http://www.hdzz.hr>. The papers, usually of 5 pages, were written either in Croatian or in English, and all had a one-page English abstract that will be reproduced in the International Nuclear Information System (INIS database available at <http://www.iaea.org/inis/>). The proceedings of previous symposia used to have ISBN numbers. This year the proceedings series of CRPA was upgraded and received the number ISSN 1849-5060 for serial publications, which represents an obligation for the Society to continue regular issuing of such a book of papers.

The program was opened by two introductory lectures. Ines Krajcar Bronić, the president of CRPA, presented a review "Ten symposia of the Croatian Radiation Protection Association 1992 - 2015". At each symposium there were lectures devoted to special occasions, such as 100 years of radiation, 50 years of radiation protection in the region (2013), accreditation and quality control issues, the World Year of Physics (2005) or the Fukushima nuclear accident (2011). The topical sections showed a broad range of interest of the radiation protection community in Croatia and also witnessed some changes in their priorities.

*../Continued*



Several topics have remained constantly present, such as radioecology, biological effects of radiation, radiation protection in medicine, public exposure, and dosimetry. In the second introductory lecture Dubravko Pevec (Faculty of Electrical Engineering and Computing, University of Zagreb) discussed "The potential of fission nuclear energy in resolving global climate change".

The scientific part of the symposium was divided into eight sections: General topics in radiation science and radiation protection; Radiation dosimetry; Biological effects of radiation; Radiation protection of the public; Radiation protection in medicine; Radioecology; Non-ionizing radiation and Instrumentation and measuring techniques.

In the "General topics" section, new Basic Safety Standards were presented and their implementation into the Croatian laws and regulations. A problem of translation to the national languages was recognized not only by Croatian participants but also by the ones from other countries. An actual issue of finding a proper storage or disposal site for radioactive waste and used nuclear fuel has been discussed, as well as the professional status of medical physicists working in medical institutions. Two presentations discussed the use of ionizing radiation in protection of cultural heritage objects and in radiosterilization of drugs. Finally, two papers presented radioactivity and nuclear topics in Croatian popular culture including mass media and internet portals, as well as the life and work Vladimir Glumac, one of the leading figures of Croatian radiation science in the first half of the 20<sup>th</sup> century who implemented protection against X-rays in one of the hospitals in Zagreb in 1931.

Contributions in the section "Radiation dosimetry" tackled the following topics: cooperation within the EURADOS (the

European Radiation Dosimetry Group) working group for passive dosimetry systems in environmental radiation monitoring on harmonization of protocols and intercomparison; investigation of the reasons for some unusually high personal dose equivalents measured during personal dosimetry monitoring; angular dependence of detectors and dose profiles in dosimetry for gamma-knife radiosurgery; comparison of doses to patients for various radiation therapy treatments.

The section "Radiation protection in medicine" is always interesting not only for medical specialists. In one study, 90 % of the radiograms of children who had been exposed to x rays, for various diagnostic purposes, showed a decrease in the size of the thymus as a side effect. In another talk, the introduction of low-dose protocol to CT scans of the thorax lowered the dose and therefore the risk for the patient, while the quality of images remained the same. The work of EURADOS group 9 on measurement of secondary radiation generated by proton beams in several proton radiotherapy centers was presented. The RBI group is the only group in Europe that used RPL (radiophotoluminescent) passive dosimeters in this study, and applied them also for out-of-field dose measurement for radiotherapy of brain tumors in pediatric patients.

One of the most interesting lectures presented in section "Biological effects of radiation" was the study of radioprotective properties of sodium copper chlorophyllin and the possibility of using it for radioprotection of radiotherapy patients and occupationally exposed populations including astronauts on long space missions. The effects of low-dose radiation on cancer risk were discussed and it was pointed out that the effects of low doses can be seen much later after exposure and the revision of dose limit was suggested. Studies of the adaptive response effect of gamma-radiation on blood cells of chicken and of the

../Continued

combined effect of sevoflurane (a general anesthetic) and gamma-radiation completed the section.

Traditionally, the "Radioecology" section contained the highest number of contributions. Various radionuclides have been monitored in air, atmospheric aerosols, deposited matter, waters (rivers and tap water), soil, sediments, and biota all over Croatia and in the neighboring countries. The influence of various industrial facilities and power plants (thermo and nuclear) on environmental radioactivity in their vicinity was monitored. The links between radioecology and radiation protection of humans and non-human biota were discussed. Various organisms (shell *Mytilus galloprovincialis*) and honey were studied as possible bioindicators of environmental radioactivity.

Some topics of radioecology are close to the topic presented in the section "Public exposure", where the doses for the population were calculated based on measured radionuclide content in various food stuffs and average consumption rate. For example, the effective radiation doses due to cesium and strontium received from fish consumption in Croatia were very low; however, doses received through imported sprats were eleven times higher than those received through ingestion of the Adriatic pilchards. Measurement of radon activity concentration in air and estimation of the annual effective dose rate has been a continuous topic of this series of symposia. This year the results of radon activity concentration measurements at outdoor spaces at various mineral and thermal springs of Bosnia and Herzegovina, at various preschool and school facilities in the municipality of Bosanska Krupa, at kindergartens and schools in two counties in Croatia and at several universities and colleges in Eastern Croatia were presented.

The section "Non-ionizing radiation" contained only one presentation on the response of human eye and brain to high-frequency fields generated by various communication devices. The presentation was followed by a vivid discussion that reflected an increasing public concern regarding possible health risks due to exposure to such fields.

The section "Instrumentation and measurement techniques" has been introduced as a separate section at the previous, 9<sup>th</sup> Symposium in 2013, and at the 10<sup>th</sup> symposium it was the second largest section after radioecology. Development or improvement of measuring techniques and data evaluation techniques with the aim of achieving better sensitivity and lower uncertainties was presented, as well as some aspects of quality control systems in testing laboratories. A new reference station for measurement of natural background radiation in real time was presented. Two papers dealt with the measurement techniques of the biogenic component in liquid fuels based on direct measurement of <sup>14</sup>C activity by liquid scintillation counters. A fast screening method for measurement of <sup>90</sup>Sr activity concentration in water samples was presented as well as comparison of two techniques of <sup>222</sup>Rn determination in drinking water.

Traditionally, all participants have a chance to vote for up to three best posters. The award for the best poster was received by Katarina Marušić (with co-authors from RBI) for the presentation "Protection of cultural heritage objects by ionizing radiation".

The success of the symposium should also at least in part be attributed to our sponsors: ALARA uređaji, BISS, Jadransko osiguranje, LKB Vertriebs Ges.m.b.H., Medicem servis, Mettler Toledo, Podzemno skladište plina, Selmet, the Ivanić-Grad Fire Department, and VERN. LKB Vertriebs Ges.m.b.H. was also present at the technical

../Continued

exhibition with two participants: Dušan Djurdjević (Vienna) and Draško Petrović (Zagreb).

The 10<sup>th</sup> Symposium of CRPA with international participation represented once again a unique

opportunity to scientists and practitioners of various profiles to exchange knowledge and experience in this interdisciplinary field of radiation protection in a stimulating international environment.



**Poster section at the CRPA 10 Symposium. The best poster is marked by an arrow**



**CRPA 10 participants during excursion to the Etnoland Dalmati in Pakovo Selo**

***More Photos on the next page .....***



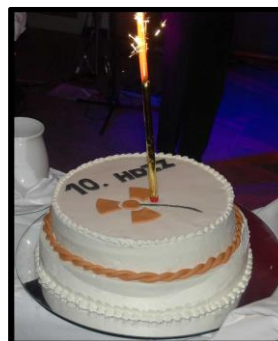


CRPA 10 participants during visit to the fortress of St. Michael

And the view from the fortress



The Cathedral of St. James (Croatian: *Katedrala sv. Jakova*) in Šibenik (view from the fortress of St. Michael). Since 2000, the Cathedral has been on the UNESCO World Heritage List.



The birthday cake



# The First International Conference On Radiation Physics and its Applications

**M.A. Gomaa**  
**IRPS Vice President for Africa and Middle East**  
**IRPA-Egypt President**

The first International Conference on Radiation Physics and Its Applications (ICRPA-1) was held April 11-14, 2015, in the Physics Department conference rooms of the Faculty of Science, Alexandria University. Topics of the conference covered theoretical and experimental radiation detection, radiation dosimetry, radiation protection, radiation safety and security, elementary and isotopic analysis, medical physics and topics in biophysics. The social program featured a tour of Alexandria's Corniche Road, highlighting Alexandria's character as a Mediterranean city.

Approximately 110 participants attended the conference, including several from Romania, Sudan, Libya and Saudi Arabia, and more than 90 from Egypt, whose affiliations included the Egyptian Atomic Energy Authority (EAEA), Egypt's Nuclear and Radiological Regulatory Authority (ENRRA), the Egyptian National Institute of Standards (ENIS) and the following Egyptian universities: South Valley, Assiut, El Minia, Cairo, Beni Suef, Mansoura, Menoufia, Suez Canal, Marine Academy Pharos and Alexandria University. Participants were welcomed with addresses by both the acting President of Alexandria University and the Vice President of the EAEA.

The conference technical program featured twelve invited talks by key radiation and nuclear physics professors. Keynote presentations were delivered by the Vice President of the EAEA, on current EAEA activities, and by the President of the ENRRA, on its current regulatory activities. Prof Mohamed El Fiki summarized the activities of ENIS. History of the International Radiation Physics Society (IRPS), its Symposia and Bulletin were reviewed by IRPS Vice President for Africa and the Middle East, Prof Mohamed Gomaa, who also reviewed activities related to the 11<sup>th</sup> Conference on Radiation Physics and Protection. Activities of the International Radiation Protection Association (IRPA) and the associated IRPA Egypt were reviewed by the IRPA Egypt President. These were complemented by numerous proffered papers and posters submitted by various participants, of whom eleven young radiation physics and protection scientists were each awarded a Certificate of Excellence to encourage further studies in the field.

Among the conference recommendations is to organize the second International Conference on Radiation Physics and Its Applications (ICRPA-2) for 2018.

*Photographs on following page :*

*First International Conference on Radiation Physics and its application Continued :*



(ICRPA-1), held April 11-14, 2015, at the Faculty of Science, Alexandria University, Alexandria, Egypt  
photo of participants at the first International Conference on Radiation Physics and Its Applications



Junior scientists who presented papers or posters in the field of radiation physics were recognized with the Certificate of Excellence.

Shown here with the recipients are Prof Mohamed El Borai, Head of the Physics Department at Alexandria University; Prof Ahmed El Khateeb, of the Radiation Physics Lab at Alexandria University; and Prof Mahmoud Abbas, ICRPA-1 conference coordinator

Acting President of Alexandria University, Dr. Roushdy Zahran, receives the shield (Oskar) from Prof Samy Shaban, Professor of Physics at the Egyptian Atomic Energy Authority and its current Vice President.





# Conferences : 2015 –2016

## Call for Papers

Egyptian Nuclear Physics Association  
(ENPA)

Organizes its

## 9<sup>th</sup> Conference on Nuclear and Particle Physics

# NUPPAC' 15

19-23 Oct. 2015  
Aswan, Egypt

Conference Chairman  
**Prof. Dr. M.N.H. Comsan**

Conference Coordinator  
**Prof. Dr. K.M. Hanna**

## ENPA Board

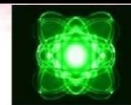
M. Adib A.A. El-Kady A.Z. Hussein  
A.H. Azzam M. El-Tahawy M. Moustafa  
M.N.H. Comsan M.A. Gomaa Z.A. Saleh

## Scientific Advisory Board

M.N.H. Comsan, Egypt V.K. Lukyanov, Russia  
J. Csikai, Hungary J. Marton, Austria  
W. Greiner, Germany M.W. Morsy, Egypt  
K. Gridnev, Russia S. Mukhammedov, Uz  
O.O. Gritzay, Ukraine D. Shirkov, Russia  
G. Jug, Italy B. Slowinski, Poland

## Programme Committee

M.N.H. Comsan, A. Khalaf,  
ENPA, AEA Al-Az'har Univ.  
S.A. El-Wakil, M.W. Morsy, AEA  
Mansoura Univ. S. Yoshey,  
K.M. Hanna, NRC, AEA Ain-Shans Univ.



## 9<sup>th</sup> Conference on Nuclear and Particle Physics 19-23 Oct. 2015, Aswan, Egypt

### NUPPAC' 15 Registration Form

- Surname: \_\_\_\_\_ M/F
- First name(s): \_\_\_\_\_
- Nationality: \_\_\_\_\_
- Institution: \_\_\_\_\_
- Address: \_\_\_\_\_
- Phone: \_\_\_\_\_
- Fax: \_\_\_\_\_
- E-mail: \_\_\_\_\_
- Title of submitted contribution: \_\_\_\_\_
- Author(s): \_\_\_\_\_  
(Please underline the name of the speaker)
- Date of arrival: \_\_\_\_\_
- Date of departure: \_\_\_\_\_
- For non- Egyptians, hotel class requested (in Euro): 40-60-80-120-150.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

الإشتراك للبصريين بشيك باسم: الجمعية المصرية للفيزياء النووية  
بنك مصر - فرع مدينة نصر حساب رقم 159/1/48993  
رسوم التسجيل حتى 2015/8/31 : 1700 جنيه مصري

رسوم التسجيل المتأخر (اعتبار من 2015/9/1) : 1800 جنيه مصري

For participants the fee will cover the book of abstracts, conference printed material, attendance of scientific sessions, tea/coffee breaks, the official conference lunch, and the conference online proceedings. For Egyptians, the fee covers accommodation in a Nile cruise from Luxor to Aswan (shared in double-bed rooms). Other expenses as the Nile cruise fee for non-Egyptians, transportation and occasions (tours, excursions, etc) are financed personally. In case of written cancellations received by 15 Sept. 2015 only 80% of the prepaid amount will be refunded. No reimbursement can be made for cancellations received after this date. Fee for accompanying person is 400 LE for Egyptians (neither including transportation nor accommodation) and 100 Euro for non-Egyptians.

### Correspondence

Prof. Dr. M.N.H. Comsan  
Chairman of NUPPAC' 15  
Atomic Energy Authority,  
3 Ahmed Elzomor St., Elzohour District,  
Nasr City, Cairo, Postal Code 11787, Egypt  
Fax: +(202)22733515  
Tel: +(2011)3226907  
E-mail: [comsanmn@hotmail.com](mailto:comsanmn@hotmail.com) , or  
[comsanmn@gmail.com](mailto:comsanmn@gmail.com)  
Web site:  
<http://www.physicsegypt.org/nuppac15/>

©PhysicsEgypt

The working language of the conference is English.

### Conference Topics

- Nuclear Scattering and Reactions
- Nuclear Models and Spectroscopy
- High Energy and Particle Physics
- Neutron and Reactor Physics
- Plasma and Fusion Physics
- Relativistic and Quantum Physics
- Computer Codes (modeling, simulation, analysis)
- Nuclear Analytical Techniques
- Reactor and Accelerator Utilization
- Detectors and Instrumentation
- Radiation Measurement and Dosimetry
- Applied Nuclear Physics

### Participation

Participants are requested to make their registration fee payable to the account of "Egyptian Nuclear Physics Association No. 159/1/48993", Bank Misr, Nasr City Branch, Nasr City, Cairo, Egypt, Swift Code BMISEG159, according to the following:

- Early registration (received up to 31 Aug. 2015):  
1700 LE for Egyptians,  
420 Euro (by bank transfer)- Non Egyptians.
- Late registration (received after 31 Aug. 2015):  
1800 LE for Egyptians,  
460 Euro (in cash) for Non Egyptians.

### Important Dates

- Last date for:
- \* Submission of abstracts 31 Jul. 2015
  - \* Early registration 31 Aug. 2015
  - \* Submission of contributed papers 15 Sep. 2015
  - \* Submission of invited talks 7 Oct. 2015

### Contribution

The organizing bodies of NUPPAC' 15 invite scientists, technologists and interested persons to participate in the conference activities. They are invited to contribute with review articles, working papers and plans, and scientific papers in any of the conference topics, to take part in working group meetings and panel discussions. The presentation time will be 30-40 minutes for invited talks/ keynote contributions, and 15-20 min for contributed papers. Participants are requested to complete and return a copy of the NUPPAC' 15 registration form. Abstracts (not more than one A4 page) for all contributions should be received by 31 July 2015. Contributed papers will be refereed and those accepted will be published in the conference proceedings and distributed to registered participants. All scientific material should be laser printed 16 cm x 24 cm printed area on good quality paper ready for camera reproduction. NUPPAC Author Instructions should be followed. An electronic version written in Word or Latex source file should be provided on CD or 3.5" disc.



## Second Announcement

### 11<sup>th</sup> INTERNATIONAL CONFERENCE OF NUCLEAR SCIENCES AND APPLICATIONS

#### And Second IRPA-EGYPT Radiation Protection Workshop



The Egyptian Society of Nuclear  
Sciences and Applications  
(ESNSA)  
Member of the International Nuclear Societies  
Council (INSC)

The Egyptian Atomic Energy  
Authority (EAEA)  
February(20-24), 2016  
Hurgada, Red Sea, Egypt,  
Sonesta Pharaoh Beach Resort 5\*

## ORGANIZED

By



### REGISTRATION FORM (Please Complete in Block Letters)

Name of Participant:

Nationality:

Institution:

Department:

Position:

General Field of Interest:

Special Field of Interest:

Mailing Address:

Telephone:

e-mail:

Title of Presentation:

Oral presentation  Poster Presentation

Attendant:

Date: /

## CONFERENCE STEERING COMMITTEE

Chairman : Prof. Hisham Aly  
Deputy Chairman : Prof. Ibrahim Yassin Moustafa

|                          |                          |
|--------------------------|--------------------------|
| Prof. Abdel Fattah Helal | Prof. Ibrahim M. Amer    |
| Prof. Abdel Shafy Ragab  | Prof. Abdelwahab Elkayed |
| Prof. Farid Abou El-Nour | Prof. Sofia Yahia Affifi |
| Prof. El Sayed Hegazy    | Prof. M.A.M. Gomaa       |
| Prof. Mahmoud Ashour     | Prof. Hamdi M. H. Gad    |
| Prof. Ahmed Ashour       | Dr. Sayed S. Metwally    |
| Dr. S.A. Abd El Aal      | Dr. Safwat Salama        |

### CONFERENCE TOPICS

- Nuclear Basic Sciences
- Radiation Basic Sciences & Technology
- Power & Research Reactor Applications
- Isotopes production and Accelerator Applications
- Nuclear Analytical Techniques
- Material Sciences & Technology
- Nano Technology & Nuclear Materials
- Non Destructive Testing
- Radiation and Nuclear Technology in Industry
- Radiation Sciences in Medicine, Biology and Agriculture
- Environmental Research, NORM, etc.
- Archeological Applications
- Heavy and Super Heavy Elements
- Non ionizing radiation & Applications

### Workshop Topics

Radiation Protection & dosimetry  
Shielding of medical, industrial, nuclear facilities  
and nuclear and radiation emergencies  
Nuclear and Radiation inspection & Control  
Nuclear Security and Radiation Regulations  
Education and Training

## ADVISORY COMMITTEE

- A. Abd El-Fattah, EAEA, Egypt
- H. Rateb, Sinai University, Egypt
- R.C. Calabrese, Atomic Energy of Argentina
- A.J. El-Azawa, Atomic Energy of Argentina
- N. Farag, Nucl. Materials Authority Egypt
- F. Macasek, Slovakia
- R. Ez-Eldeen, NRR, Egypt
- H. Abd El Reheem, AEA, Egypt
- S. Shabsban, EAEA, Egypt
- S. Ibrahim, NCRRT, EAEA, Egypt
- O. S. Seedek, NRC, EAEA, Egypt
- W. Zedan, NRR, Egypt
- A. Mahgoub, AAEA
- N. El Faramawy, Ain Shams Univ., Egypt
- E. Zakaria, Hot labs, EAEA, Egypt
- M. Mousa, Benha Univ. Egypt
- G. Bochoux, Ecole Polytechnique, France
- S. U. El-Kameesy, Ain Shams Univ. Egypt
- M. Comsan, EAEA, Egypt
- M. Abdel EL- Ghafar, NRC, Doldi, Egypt
- A. Abel EL- Haleem, EAEA, Egypt
- A. M. El-Katib, Alex. Univ. Egypt
- Y. Badr, Cairo Univ. Egypt
- A. Zahran, EAEA, Egypt
- A. Choukri, AMR, Morocco
- F. H. Shannoun, UNSCEAR
- O. K. Halkam, Expert, Morocco
- Azza Hammou, Tunisia

## PUBLICATION

Papers will be refereed and published in a special issue of the "Arab Journal of Nuclear Sciences and Applications".

\*Abstracts of scientific contributions to be submitted before the first of September, 2015.

\*The complete manuscript to be submitted before the end of October 2015, written according to the periodical instructions: <http://www.esnsa-eg.com>

## INVITATION

The Egyptian Society of Nuclear Sciences and Applications (ESNSA) organizes an international conference every four years that deals with current research activities in the field of nuclear sciences and applications. The conference aims at providing a forum for exchanging knowledge in the interdisciplinary fields of nuclear sciences and their applications.

The Egyptian Atomic Energy Authority cooperates with ESNSA in the execution of the present conference.

IRPA Egypt of ESNSA is member of IRPA International as Associate Society. First IRPA Egypt workshop was organized in 2007. The Second IRPA workshop will be held within the activity of the conference. Radiation protection, nuclear, safety, regulatory experts are invited to participate in the second IRPA-Egypt workshop.

The scientific activities of the conference will include keynote presentations by international and national recognized scientists to highlight recent progress in nuclear sciences, as well as contributed papers dealing with the on-going research. Issues of public concern, human health, the environment, developmental programs will be addressed, and the promotion of peaceful applications of nuclear sciences using nuclear techniques. The conference sessions will also include panel discussions, technical presentations on certain nuclear applications in Archeology as well as Rad. Prot. Workshop.

## REGISTRATION FEES

Registration fees cover full accommodation (double room)\* during Conf. period, Conf. documents and transportation (Cairo-Hurgada-Cairo).

700 Euro For Non Resident Participants.

1750 L.E For Egyptian ESNSA Members.

1800 L.E For Non-ESNSA Members.

\*Extra charges for single room accommodation.

Registration Fees are payable to:

"Conference of Nuclear Sciences and Applications. Account No: 12200100029021 Bank Misr, Garden City Branch".

## CORRESPONDENCE

Prof. Abdel-Fattah I. Helal  
Atomic Energy Authority  
3 Ahmed El-Zomor St. Nasr City, Cairo, Egypt

<http://www.esnsa-eg.com>

e-mail: [aihelal@yahoo.com](mailto:aihelal@yahoo.com)

Tel.: 002-01001116525

## Workshop correspondence

Prof. M.A.M. Gomaa

e-mail: [radmedphys@yahoo.com](mailto:radmedphys@yahoo.com)



Hurgada, Red Sea, Egypt,  
Sonesta Pharaoh Beach Resort 5\*

1st International Conference on  
Radioanalytical and Nuclear Chemistry

April 10-16, 2016 / Budapest, Hungary



**The Journal of Radioanalytical and Nuclear Chemistry (JRNC)  
is pleased to invite you to**

**1st International Conference on Radioanalytical and  
Nuclear Chemistry (RANC-2016)**

**to be held in Budapest, Hungary between 10-16 April, 2016.**

**Confirmed Plenary Speakers**

**Dr. Richard B. Firestone**

Leader of Isotopes Project, Nuclear Science  
Division, Lawrence Berkeley National  
Laboratory, Berkeley, CA, USA

**Prof. A.V.R. Reddy**

Head of Analytical Chemistry Division, Bhabha  
Atomic Research Centre, Trombay, Mumbai,  
India

**Prof. Andreas Türler**

Head of the Laboratory Radionuclide  
Development, Paul Scherrer Institute,  
Villingen, Switzerland

**Prof. Siegfried Niese**

Former professor at University Dresden and  
at Research Institute for Nuclear Research  
in Rossendorf; the famous author of the  
biography of György Hevesy.

**Topics of RANC-2016**

- \* Analytical methods and detection techniques
- \* Environment
- \* Effects of radiation, radiation chemistry
- \* Radiolabeled compounds and  
radiopharmaceuticals
- \* Actinide chemistry, super-heavy elements
- \* Nuclear industry

**Topics** *(Continued)*

- \* Separation, speciation
- \* Radionuclides
- \* Instrumentation and methodology

**Registration & Abstract submission**

Registration and submission is open at

<http://www.jrnc-ranc.com>

Abstract submission deadline:

October 01, 2015

Earl-bird registration deadline :l

December 01, 2015

For more information please contact:

[ranc@akcongress.com](mailto:ranc@akcongress.com)

**Organizing Committee**

Chairman

Dr. Zsolt RÉVAY

Editor-in-Chief / JRNC

Technische Universität München, Germany

Co-chairs

Prof. Amares CHATT

Editor / JRNC

Dalhousie University, Canada

Dr. Tibor G. KOCSOR

Associate Editor / JRNC

Akadémiai Kiadó, Hungary



# INTERNATIONAL RADIATION PHYSICS SOCIETY CONSTITUTION

On the following pages is the proposed revised Constitution of the Society, and below is the ballot paper for your agreement or otherwise to the adoption of this revision.


Please send the ballot paper to

Prof Jorge Fernandez, IRPS Secretary

Laboratory of Montecuccolino, Department of Industrial Engineering (DIN)  
Alma Mater Studiorum, University of Bologna via dei Colli, 16-40136 Bologna Italy

Or by electronic submission: scan your completed ballot and email the image to:

[jorge.fernandez@unibo.it](mailto:jorge.fernandez@unibo.it)

|  |  |
|--|--|
|  | <b>BALLOT PAPER</b><br><b>VOTE (X) ONCE ONLY</b> |
| <b>DO YOU AGREE TO THE ADOPTION OF<br/>THE REVISED IRPS CONSTITUTION?</b>          |  |
| <b>YES</b>   | <input type="checkbox"/>                         |
| <b>NO</b>  | <input type="checkbox"/>                         |



# INTERNATIONAL RADIATION PHYSICS SOCIETY

## CONSTITUTION

### PREAMBLE

RECOGNIZING the importance of physics, measurement and application of radiation as an interdisciplinary science extending over several different areas of human endeavours, and

REALIZING that in the search for new sources of energy, for optimizing the use of available resources, for the development of more efficient technologies, and for preservation of our natural environment, radiation plays a dynamic role of great importance, and

APPRECIATING the need for international cooperation and coordination, for exchange of ideas and information among the scientists dealing with various aspects of radiation in different parts of the world, THE INTERNATIONAL RADIATION PHYSICS SOCIETY has been set up as a professional scientific organization which will devote itself to the task of:

- (a) organizing, sponsoring, or supporting international and regional conferences, symposia, panel discussions and workshops devoted to one or several aspects of radiation;
- (b) providing qualitative and quantitative bases for actions related to the nature, measurement and application of radiations, electromagnetic as well as particulate, and their interaction with matter, including the promotion of (i) theoretical and experimental research on radiation, (ii) investigation of physical aspects of interactions of radiations with living systems, (iii) education in sciences related to radiation, and (iv) utilization of radiations for peaceful purposes;
- (c) encouraging communication between radiation scientists of different nations through the publication of bulletins, newsletters, a membership directory, and other appropriate documents;
- (d) assisting in the exchange of scientists between various laboratories; and
- (e) encouraging and disseminating knowledge, throughout the scientific community and the general public, of applications of radiation to human welfare and development.

### Article 1, Name

1.1 The name of this international body is the International Radiation Physics Society, which in abbreviated form may be referred to as IRPS, and is hereinafter designated as the Society.

### Article 2, Scope and Objectives

2.1 The International Radiation Physics Society perceives radiation physics as a broad scientific discipline, which includes fundamental theoretical and experimental research on radiations (both electromagnetic and particulate) and its interaction with matter, as well as applied branches of radiation sciences, e.g. industrial radiation and radioisotope measurement applications, dosimetry and radiation safety, physical aspects of medical radiology, environmental radiation, radiation in archaeometry, in life sciences, etc. In some aspects, it goes beyond traditional physics to the boundary with chemistry and biology.

2.2 The primary objective of the Society is to promote the global exchange and integration of scientific information pertaining to the interdisciplinary subject of radiation sciences and to provide the qualitative and quantitative bases for individual and institutional actions related to the nature, measurement and application of radiations and their interaction with matter, including the promotion of (i) theoretical and experimental research in radiation physics and its applications, (ii) investigation of physical aspects of interactions of radiations with living systems, (iii) education in sciences related to radiation, and (iv) utilization of radiations for peaceful purposes.

2.3 The activities of the Society are those appropriate to the accomplishment of the primary objectives and shall be (i) to provide for and give support to international and regional meetings in which scientists active in the field of radiation sciences may present and discuss their scientific endeavours, (ii) to publish the results of the meetings conducted by the Society, (iii) to encourage coordinated scientific research and to promote educational opportunities in radiation sciences, and (iv) to undertake other scientific activities appropriate to radiation sciences when approved by the Society.

### **Article 3, Membership**

3.1 The Society consists of individual members. Eligibility for full voting membership shall be deemed to be satisfied if the person seeking membership (i) is a faculty or a staff member, a research assistant, a research associate or a postdoctoral scholar of an academic institution in a department that teaches or does research in one of the areas of radiation sciences, and/or (ii) has published papers in a refereed journal in one or more of the areas of radiation sciences, and/or (iii) is a staff member of a hospital, industrial organization, government agency, or other laboratory that is engaged in research or applications in one of the areas of radiation sciences.

3.2 A postgraduate student or student studying for a master or bachelor degree in this general field shall be eligible for student membership.

3.3 Persons of eminence in the field of radiation sciences may be elected as Honorary Members of the Society. Such membership may be proposed by any member of the Executive Council or by ten members of the Society and shall be approved by the Council.

3.4 In addition to individual members, the Society actively solicits the participation of national or regional organizations and institutions whose activities and aims are directed toward the furtherance of the aim and directions of the Society. Such organizations are designated as corporate members. They may be proposed by any member of the Society and shall be approved by the Council.

3.5 A member shall be entitled to the following rights

(1) Every individual member and honorary member shall have the right to vote, for the purposes as stated in Article 8.1 of the Constitution. The vote shall be non-transferable.

(2) Every individual member shall be eligible to be nominated for election to the Council in accordance with Article 8 of the Constitution.

### **Article 4, Finance**

4.1 The Society is supported financially, in part, by annual dues paid by the members. Membership dues shall be determined by the Executive Council. If desired, the dues structure may be tiered, as for example in distinguishing between developed and developing countries, or areas where currency exchange restrictions are encountered, also for student membership, etc.

4.2 In addition, the Society is supported financially by annual dues of the corporate members. The amount will be determined by the Executive Council.

4.3 Further financial support for the Society may be obtained in the form of grants-in-aid, donations, or gifts to the Society, with the approval of the Executive Council. Additional sources of revenue may include funds accruing from publications of proceedings, organization of scientific meetings and similar activities. However, any grants-in-aid, donation, or gift may not be accepted by the Society if it prejudices or compromises the objectives or purposes as stated in Article 2 above or if it interferes with the free expression of opinion of the individual members, or the Officers of the Society.

## **Article 5, Administration**

5.1 The executive functions of the Society are delegated by the membership to the Officers of the Society and to the Executive Council. The Officers of the Society are the President, one or more Vice Presidents, the Secretary, the Treasurer, the Chair of the Editorial Board and the Membership Officer. The Executive Council consists of these Officers and Councillors as elected by the membership as described in Article 8. The past President is ex officio the voting member of the Council as the Chair of the Advisory Board (see the article 11.2).

5.2 The general headquarters of the Society will be located at the institution with which the Secretary is affiliated. If and when the Society can support the establishment of a permanent secretariat, it will be established at a place to be determined by the Executive Council. The permanent secretariat will then serve as the general headquarters of the Society and will operate under the supervision of an Administrative Secretary, who will be engaged by and serve at the pleasure of the Executive Council.

5.3 Standing or ad hoc Committees can be constituted to discharge the functions of the Society. Members of committees shall be appointed by the President with the approval of the Executive Council, with due cognizance of regional and disciplinary representation.

These Committees can include the following:

- (a) International Meetings Committee – Planning, organization, and publication of proceedings of the international meetings and conferences of the Society. This committee should be constituted ad hoc for each international meeting organised according to the Article 9 of the Constitution.
- (b) Finance Committee – to collaborate with the Treasurer in dealing with the financial aspects of the Society.
- (c) Rules Committee – to formulate the rules of the Society, to deliberate on any proposed amendments to the articles of the constitution or the rules of the Society and to give its recommendations to the Executive Council.
- (d) Membership Committee – to collaborate with the Membership Officer to oversee the admission of new members and continuation in membership of current members.
- (e) Editorial Board – responsible for publishing the web page, newsletters, journals, and other material on behalf of the Society. The responsibility for various parts of this activity should be allocated to the designated members of the Editorial Board.

5.4 There shall be an ad hoc Nominations and Elections Committee designated in preparation for each election of Officers and Executive Councillors. This committee shall not include the present Officers or other members of the Executive Council whose terms are about to expire and who will stand for election for the next period. It shall consist of the other members of the Executive Council and/or members of the Society with a chair designated by the President.

5.5 The President may set up ad hoc committees to deal with any specific problems which may come before the Society.

## **Article 6, Officers**

6.1 The Officers of the Society are elected by the individual members by secret mailed ballot, as prescribed in the article 8. Elections will take place once every three years.

6.2 The President, or in his/her absence one of Vice-Presidents, designated by the President, conducts the meetings of the Executive Council and the General Membership. If the President resigns or is otherwise unable to serve, the Executive Council shall elect a new President from among the members of the Executive Council. The President so elected shall hold office until the next general election.



6.3 The duties of the President are:

- (a) to manage the Society and be liable for its smooth and efficient operation;
- (b) to conduct the meetings of the Executive Council and the General Membership;
- (c) to collect information and promote radiation physics;
- (d) to promote ISRP and membership in the Society;
- (e) to prepare the triennial report about the state of the Society for the meeting of the General Membership of the Society;
- (f) to prepare the President's Column as a leading article for each issue of the IRPS Bulletin.

6.4. The duties of the Vice-President are:

- (a) to conduct the meetings of the Executive Council and the General Membership in absence of the President;
- (b) to collect information and promote radiation physics in his/her sphere of activity;
- (c) to report important events in radiation physics in his/her sphere of activity in the IRPS Bulletin;
- (c) to promote ISRP and membership in the Society in his/her sphere of activity;
- (d) to perform any other duties which may be assigned by the President for the smooth and efficient functioning of the Society.

6.5 The duties of the Secretary are:

- (a) to be responsible for the correspondence of the Society;
- (b) to prepare and keep minutes of all meetings of the General Membership and of the Executive Council;
- (c) to perform any other duties as be provided for in the rules of the Society;
- (d) to perform any other duties which may be assigned by the President for the smooth and efficient functioning of the Society.

6.6 The duties of the Treasurer are:

- (a) to receive all monies payable to the Society, to issue proper receipts thereof and to deposit the amounts in a bank or in banks in the account of the Society;
- (b) to draw and sign cheques on the account of the Society;
- (c) to keep a proper account of all financial transactions.

6.7 The duties of the Chair of the Editorial Board are:

- (a) to supervise all activities of the Editorial Board according to the Article 5.3(e).

6.8 The duties of the Membership Officer are:

- (a) to maintain up-to-date lists showing the names, affiliations and addresses of the members and Officers of the Society;
- (b) to promote membership in the Society in the scientific community and process applications for membership;
- (c) to monitor payment of membership dues, remind expiring memberships about unpaid dues and to propose withdrawing members with unpaid dues to the Executive Council.

6.9 Any vacancy arising in the offices of President, Vice-President, Secretary, Treasurer, Chair of the Editorial Board or Membership Officer shall be filled by action of the Executive Council, and the person selected shall hold office until the next general election. In the case that this vacancy arises in the office of President, the Secretary is entitled to initiate action of the Executive Council.

## **Article 7, Executive Council**

7.1 The Executive Council has responsibility for the overall management of the affairs of the Society, performing those functions as provided for in the Constitution or the rules of the Society.

7.2 The Executive Council shall be composed of voting members consisting of (i) eight Executive Councillors who are elected by and from the General Membership, and (ii) the President, the Vice-Presidents, the Chair of the Advisory Board, the Secretary, the Treasurer, the Chair of the Editorial Board and the Membership Officer of the Society. In electing the members of the Executive Council, the General Membership is urged to give due consideration to maintaining a balance in representation among the regions and disciplines and in continuity of functioning of the Society. Each member of the

.. 7.2 continued

Executive Council except the President shall have one vote. In the event of a tied vote the President shall cast the deciding vote. The standing Executive Council shall determine the number of Vice Presidents to be chosen in the next election.

- 7.3 The terms of office for each of the eight Executive Councillors correspond to six years; the terms shall be so arranged that the terms of half of the Councillors expire each three years.
- 7.4 The Rules Committee shall formulate and recommend to the Executive Council a set of rules by which the Society is governed. All such rules shall be consistent with the provisions of this Constitution. The rules become effective after having been approved by the Executive Council, either in a meeting or by mailed ballot. The rules so formulated shall be circulated to the membership. They may be amended by the Executive Council.
- 7.5 The Executive Council shall usually meet twice in a year, if possible, one of these meeting being prior to each meeting of the General Membership at the time of the international meeting organized by the Society (Article 9). It shall confer at any other times subject to the rules of the Council or at the discretion of the President. A quorum for the Council meeting is at least four members present.
- 7.6 Any member of the Society may present a proposal, question or suggestion to the Executive Council. If received in time for advance distribution, i.e. at least one month before the Executive Council meeting, such proposals will be placed on the agenda of the Executive Council as a regular item of business. Otherwise they will be considered at the discretion of the Council.
- 7.7 If a vacancy occurs in a seat held by a voting member, the Executive Council may make an appointment to fill the unexpired term until the next general election.

#### **Article 8, Nominations and Elections**

- 8.1 Elections of the Society shall take place by mail or electronic ballot for the purposes of electing Officers and Executive Councillors of the Society.
- 8.2 For such elections of Officers and Executive Councillors, the Nominations and Elections Committee shall propose at least one candidate for each position and obtain their consent to be nominated. This list of candidates shall be reported to the membership. Additional candidates may be proposed with their consent for any position if a nomination petition signed by ten paid-up members of the Society, to that effect, is received by the Nominations/Elections Committee by a specified date in advance of the preparation of the ballot. Space for alternative candidates should always be provided on ballots. For each position, the candidate receiving the largest number of votes shall be declared elected. The entire Nominations/Elections process is to be scheduled such that the results may be publicly announced at the international meetings of the Society.
- 8.3 The Nominations/Elections Committee shall also supervise ballots for approval of amendments to the Constitution.

#### **Article 9, Scientific Meetings**

- 9.1 The Society shall hold international meetings (International Symposium on Radiation Physics) at intervals of about 3 years at such time and place as may be selected by the Executive Council. The primary purpose of the international meeting is to provide a forum for members to discuss their professional work, exchange ideas and acquaint themselves with the scientific problems of their colleagues.
- 9.2 The international meeting may be held in any country that accepts participants from all other countries.
- 9.3 Insofar as is consistent with local rules and regulations, all monies realized in excess of the operating costs relevant to the international meeting according to the article 9.1 shall be divided half to the Society and half to the institution organizing the meeting for the Society, if the ratio is not beforehand agreed differently.

- 9.4 In connection with each international meeting according to the article 9.1, there shall be a meeting of the General Membership of the Society, arranged by the Executive Council and presided over by the President, or in his/her absence one of Vice-Presidents, designated by the President. A report on the general state of the Society, its activities, its finances, and its proposed budget for the ensuing 3-year period shall be presented. Any member of the Society may address the General Membership meeting upon prior arrangement with the President or otherwise at his or her discretion. The General Membership meeting provides an opportunity to express opinions to the Executive Council. Since it cannot be expected that a majority of the membership of the Society can attend on any one occasion, such a general meeting is not a decision-making body for the Society.
- 9.5 The Society may also organize or co-organize further international meetings and conferences on topics related to radiation, preferentially in the years in which the international meeting according to the article 9.1 does not take place. Monies realized in excess of the operating costs relevant to these conferences shall be paid to the Society and the co-organiser, if any, in the ratio that is the subject of a preceding agreement.

### **Article 10, General and Financial Reports**

- 10.1 The President with assistance of members of the Executive Council shall prepare and submit to the membership a triennial report on the general state and activities of the Society.
- 10.2 The Treasurer shall prepare an annual financial statement and submit it to the Executive Council. On a triennial basis, this shall include a budget, approved by the Executive Council, for the next triennium. This triennial statement and budget shall form a part of the triennial report according to article 10.1.
- 10.3 The accounts of the international meetings shall be prepared immediately following the international meeting, and submitted to the Executive Council.

### **Article 11, Advisory Board**

- 11.1 The ex-members of the Executive Council become lifelong members of the Advisory Board of the Society.
- 11.2 The Advisory Board is chaired in each three-year period by the past President of the Society. The Chairman of the Advisory Board is ex officio a voting member of the Executive Council.
- 11.3 The Advisory Board serves as the consulting body to the President and to the Executive Council. The President is entitled to invite any member of the Advisory Board to take part in the Executive Council meeting and to turn to all or selected members of the Advisory Board with any questions regarding the activities of the Society.

### **Article 12, Amendments to the Constitution**

- 12.1 Amendments to the Constitution may be proposed (i) by the Executive Council, or (ii) by a petition submitted by 20% or more of the membership of the Society.
- 12.2 A ballot should be sent to the entire membership.
- 12.3 The Constitution may be amended by the affirmative vote of at least two-thirds of the membership who cast votes in the election.
-



# *Calendar*

## 2015

**7 – 11 September, 2015**

**ISRP-13**

**13<sup>th</sup> International Symposium on Radiation Physics**

**Beijing, P.R. China**

Website : <http://isrp13.ustc.edu.cn/dct/page/1>

*Full Information and registration details on pages 7 to 22 of this Bulletin*

**19 – 23 October, 2015**

**NUPPAC 15**

**9<sup>th</sup> Conference on Nuclear and Particle Physics**

**Aswan, Egypt**

Website : <http://www.physicsegypt.org/nuppac15/>

*Full Information and registration details on page 31 of this Bulletin*

## 2016

**20 – 24 February, 2016**

**11<sup>th</sup> International Conference of Nuclear Sciences and Applications and  
Second IRPA-Egypt Radiation Protection Workshop**

**Hurghada, Red Sea, Egypt**

*Full information on page 32 of this Bulletin (with change of date for submission of abstracts)*

**10 – 16 April, 2016**

**RANC-2016**

**1st International Conference on Radioanalytical and Nuclear Chemistry**

**Budapest, Hungary**

*Full information and contact details on page 33 of this Bulletin*

**3 – 8 July, 2016**

**ICDA-2**

**2<sup>nd</sup> International Conference on Dosimetry and its Applications**

**University of Surrey, Guildford, UK.**

*Full information in previous Bulletin, March, 2015*

## **New Memberships, Membership Renewals**

Membership form for new members, and details for payments by cheque for new and renewing members are on the last 2 pages of this journal and information for payment by credit card is below

If you are unsure when your renewal is due, contact

Elaine Ryan

*email: elaine.ryan@sydney.edu.au*

## **Membership Payments by Credit Card**

**Internet payments by credit card (Visa, Mastercard, AMEX, Discover) can be made via the IRPS website**

<http://www.canberra.edu.au/irps>

You do not need a PayPal account to use this method of payment

Go to the Home Page on our website (as above)  
click on Membership, scroll down to the selection of buttons and click on the one that suits your membership.

If you have any queries or problems contact :

Dr William L. Dunn

Department of Mechanical and Nuclear Engineering  
Kansas State University

137 F Ward Hall, Manhattan, KS 66506, USA

*Phone : 785 532 5628*

*email : dunn@mne.ksu.edu*

## ***Contacts***



*Items for the Bulletin : Ron Tosh, Larry Hudson*

*Membership Enquiries : Elaine Ryan*

*Layout and distribution of the Bulletin : Shirley McKeown*

*Web Pages : Shirley McKeown*

Contact addresses are listed in the IRPS information on page 2.

Internet Address : <http://www.canberra.edu.au/irps>

And we have a developing "sister website" : <http://radiationphysics.org/>

# INTERNATIONAL RADIATION PHYSICS SOCIETY

The primary objective of the International Radiation Physics Society (IRPS) is to promote the global exchange and integration of scientific information pertaining to the interdisciplinary subject of radiation physics, including the promotion of (i) theoretical and **experimental research in radiation physics**, (ii) investigation of physical aspects of interactions of radiations with living systems, (iii) education in radiation physics, and (iv) utilization of radiations for peaceful purposes.

The Constitution of the IRPS defines Radiation Physics as "the branch of science which deals with the physical aspects of interactions of radiations (both electromagnetic and particulate) with matter." It thus differs in emphasis both from atomic and nuclear

physics and from radiation biology and medicine, instead focusing on the radiations.

The International Radiation Physics Society (IRPS) was founded in 1985 in Ferrara, Italy at the 3rd International Symposium on Radiation Physics (ISRP-3, 1985), following Symposia in Calcutta, India (ISRP-1, 1974) and in Penang, Malaysia (ISRP-2, 1982). Further Symposia have been held in Sao Paulo, Brazil (ISRP-4, 1988), Dubrovnik, Croatia (ISRP-5, 1991) Rabat, Morocco (ISRP-6, 1994), Jaipur, India (ISRP-7 1997), Prague, Czech Republic (ISRP-8, 2000), Cape Town, South Africa (ISRP-9, 2003), Coimbra, Portugal (ISRP-10, 2006), Australia (ISRP-11, 2009) and ISRP-12 in Rio de Janeiro, Brazil in 2012. The IRPS also sponsors regional Radiation Physics Symposia.

The **IRPS Bulletin** is published quarterly and sent to all IRPS members.

The IRPS Secretariat is : Prof. Jorge E Fernandez (IRPS Secretary),  
Laboratory of Montecuccolino, Department of Industrial Engineering (DIN)  
Alma Mater Studiorum University of Bologna  
Via dei Colli, 16 40136 Bologna, Italy  
Phone : +39 051 2087 718 Fax: +39 051 2087 747  
email: jorge.fernandez@unibo.it

**The IRPS welcomes your participation in this "global radiation physics family."**

---

## INTERNATIONAL RADIATION PHYSICS SOCIETY

### Membership Registration Form

1. Name : \_\_\_\_\_  
(First) (Initial) (Last)
2. Date and Place of Birth : \_\_\_\_\_
3. Business Address : \_\_\_\_\_  
\_\_\_\_\_  
(Post Code) (Country)
- Telephone: \_\_\_\_\_ Email: \_\_\_\_\_ Fax: \_\_\_\_\_
4. Current Title or Academic Rank (Please also indicate if Miss, Mrs., or Ms.): \_\_\_\_\_
5. Field(s) of interest in Radiation Physics (Please attach a list of your publications, if any, in the field:  
\_\_\_\_\_  
\_\_\_\_\_
6. Please list any national or international organization(s) involved in one or more branches of Radiation Physics, of which you are a member, also your status (e.g., student member, member, fellow, emeritus):  
\_\_\_\_\_

../Continued



7. The IRPS has no entrance fee requirement, only triennial (3-year) membership dues. In view of the IRPS unusually low-cost dues, the one-year dues option has been eliminated (by Council action October 1996), commencing January 1, 1997. Also, dues periods will henceforth be by calendar years, to allow annual dues notices. For new members joining prior to July 1 in a given year, their memberships will be considered to be effective January 1 of that year, otherwise January 1 of the following year. For current members, their dues anniversary dates have been similarly shifted to January 1.

Membership dues (stated in US dollars - circle equivalent-amount sent):

| Full Voting Member: 3 years | Student Member: 3 years    |
|-----------------------------|----------------------------|
| Developed country \$75.00   | Developed country \$25.00  |
| Developing country \$30.00  | Developing country \$10.00 |

Acceptable modes of IRPS membership dues payment, to start or to continue IRPS membership, are listed below. Please check payment-mode used, enter amount (in currency-type used), and follow instructions in item 8 below. (For currency conversion, please consult newspaper financial pages, at the time of payment). All cheques should be made payable to :

**International Radiation Physics Society.**

( For payments via credit card - <http://www.irps.net/registration.html>)

[ ] *(in U.S. dollars, drawn on a U.S. bank):* Send to Dr W.L. Dunn, Dept. Mechanical and Nuclear Engineering, Kansas State University, 3002 Rathbone Hall, Manhattan, KS, 66506-5205. U.S.A.

Amount paid (in U.S. dollars) \_\_\_\_\_

[ ] *(in U.K. pounds):* Send to Prof. Malcolm J. Cooper, Physics Dept., University of Warwick, Coventry, CV4 7AL, U.K.. Bank transfer details:

Account number: 30330701. Bank and Branch code: Barclays, code 20-23-55.

Eurochecks in U.K. pounds, sent to Prof. Cooper, also acceptable.

Amount paid (in U.K. pounds) \_\_\_\_\_

8. Send this Membership Registration Form **AND** a copy of your bank transfer receipt (or copy of your cheque) to the Membership Co-ordinator:

Dr Elaine Ryan  
 Department of Radiation Sciences  
 University of Sydney  
 75 East Street, (P.O. Box 170)  
 Lidcombe, N.S.W. 1825, Australia  
*email: elaine.ryan@sydney.edu.au*

9.

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*