

ICRS-13 & RPSD-2016

13th *International Conference on Radiation Shielding*
&
19th *Topical Meeting of the Radiation Protection & Shielding Division*
of the *American Nuclear Society -2016*

Welcome message of Dr. Cheikh M. DIOP

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General Chair



My first words are to wish you a very warm welcome in Paris after Nara in Japan in 2012 and Knoxville in the U.S. in 2014. It is symbolic that this conference is held almost 44 years ago to the day and at almost the same location near the Eiffel Tower, with the cooperation of the Nuclear Energy Agency, of the International Atomic Agency and of the American Nuclear Society.

What brings us together here today is our unity and our diversity. Unity because we draw on the same scientific heritage. The diversity is due to the specificity of our own fields of application.

The beneficial consequence is the mutual enrichment of our respective communities on scientific, technical, cultural and human levels. This enrichment supposes also the transmission of achievements and a continuity in this transmission.

This is the spirit in which we have requested the attendance of two eminent witnesses and actors of the radiation protection and shielding history: they are Dr. Enrico SARTORI and Jean-Claude NIMAL, who will speak not today but at the closing session of this conference.

Then this is the right time to recall the ambitious and long term objective of the Health Physics group composed of eight physicists – Bob COVEYOU, Carl GAMERTSFELDER, Jim HART, O. G. LANDSWERK, K.Z. MORGAN, L. A. PARDUE, Herb PARKER, Ernest WOLLAN – who met at the era of the first nuclear reactor at Chicago in USA :

“Health physics had its origin as a profession at the University of Chicago in 1942-43 as indicated in Figure 1. the effects of ionizing radiation on matter with the immediate objective to maximize the ratio of benefits to hazards and the principal long-range goal was recognized as the development of a coherent theory of radiation damage. We today find health physics research programs employing physicists, chemists, engineers, biologists and mathematicians working together on theoretical and experimental problems. They are working at all levels- nuclear, atomic, molecular, gas, liquid, plasma, solid, crystal, living cell, animal and the ecosystem.” (Karl Z., Morgan, “Education and Training”, at the 121st Meeting of the Advisory Committee for the Division of Biology and Medicine. Oak Ridge. Tennessee, November 9. 1967).

This leads to questioning the past and the present for the future:

- Theoretical, methodological, experimental breakthroughs?
- Innovative applications, new fields?
- What’s new for solving the inverse problem?
- Finest dosimetry measurements & interpretation?

- The future of the computational methods and associated codes : deterministic versus Monte Carlo. The end of the semi-empirical methods?
- New optimization approaches?
- Impact of the High Performance Computing?
- New requirements for nuclear data?
- Towards a multiphysics approach for extreme situations?
- Validation and transposition?
- To refund the radiation shielding engineering occupation using CAD, virtual reality?
- ...

I am sure that the conference will provide elements of response to all these questions.

I would like to thank here the Institution Representatives for their attendance:

- Dr. Andrew C. KLEIN, President of the ANS and “the Named Editor of Nuclear Technology”,
- Prof. Takashi NAKAMURA de Tohoku University, General Co-Chair of the conference, represented by Dr. Kimiaki SAITO from JAEA.
- Dr. Masashi HIRANO, Senior Coordinator for International Collaboration de la Nuclear Regulation Authority, Japan,
- Dr. Michele FERENCI from Penn State University, USA, General Co-Chair of the conference,
- Dr. Gianni BRUNA, Scientific Director of IRSN, France, General Co-Chair of the conference,
- Dr. Daniel IRACANE, Adjoint Director of OCDE/AEN, Chief Nuclear Officer,
- Dr. Sylvestre PIVET, Director of Innovation and Nuclear Support at the Nuclear Energy Division (DEN) of the CEA, France

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I thank all the committee members for their hard and valuable work that made this conference possible,

Thanks to the plenary speakers and all the attendees for your contributions and interest to this joint conference ICRS-13 & RPSD-2016.

I declare the ICRS-13 & RPSD-2016 conference open. Thank you for your attention.