



REPROLAM ELABORATION AND ESTABLISHING A REGIONAL SURVEY ON NUMERICAL DOSIMETRY CAPABILITIES.

INTRODUCTION

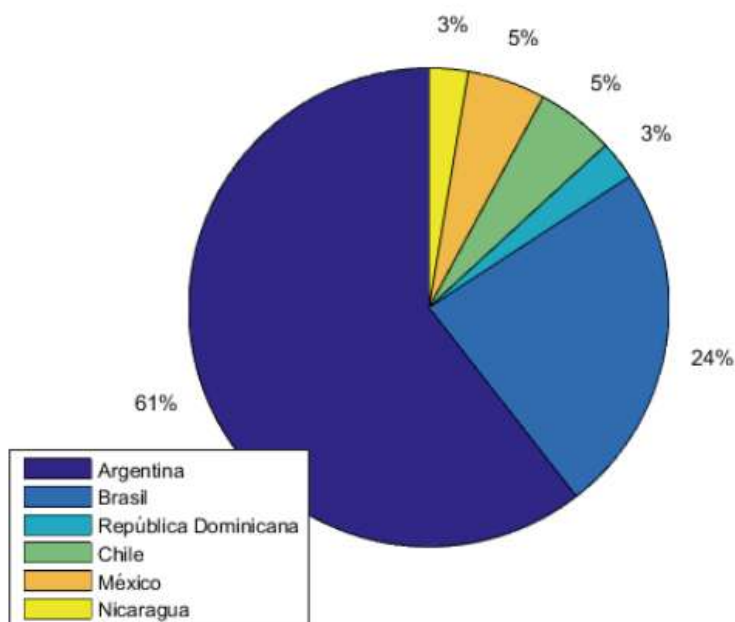
Through the RLA 9088 project, the IAEA seeks to strengthen regional capacities for End Users/Technical Support Organizations (TSOs) to meet the requirements of medical and occupational radiation protection, as well as emergency preparedness and response. In this framework, a survey was carried out in order to reveal the current situation of Computational Dosimetry in Latin America and the Caribbean.

This survey covered all the people/groups that use Monte Carlo (MC) methods in the area of radiological protection in the countries that make up the RLA 9088 project. The information was obtained through an online questionnaire.

The survey ended on 05/31/2022, the results are presented below.

RESULTS

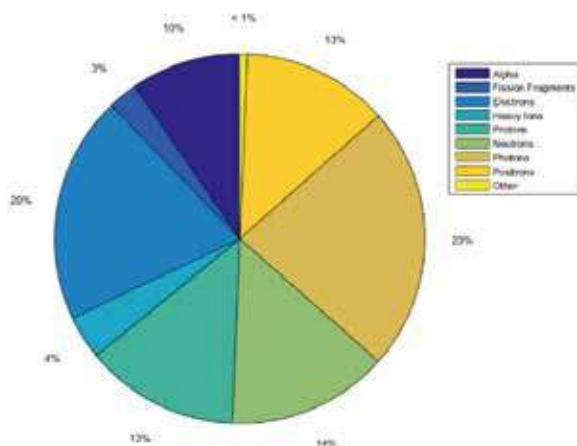
This survey was answered by 38 people using Monte Carlo methods from six countries, Argentina (61 %), Brazil (24%), Chile (5 %), Mexico (5 %), Nicaragua (3 %) and the Dominican Republic (3 %).



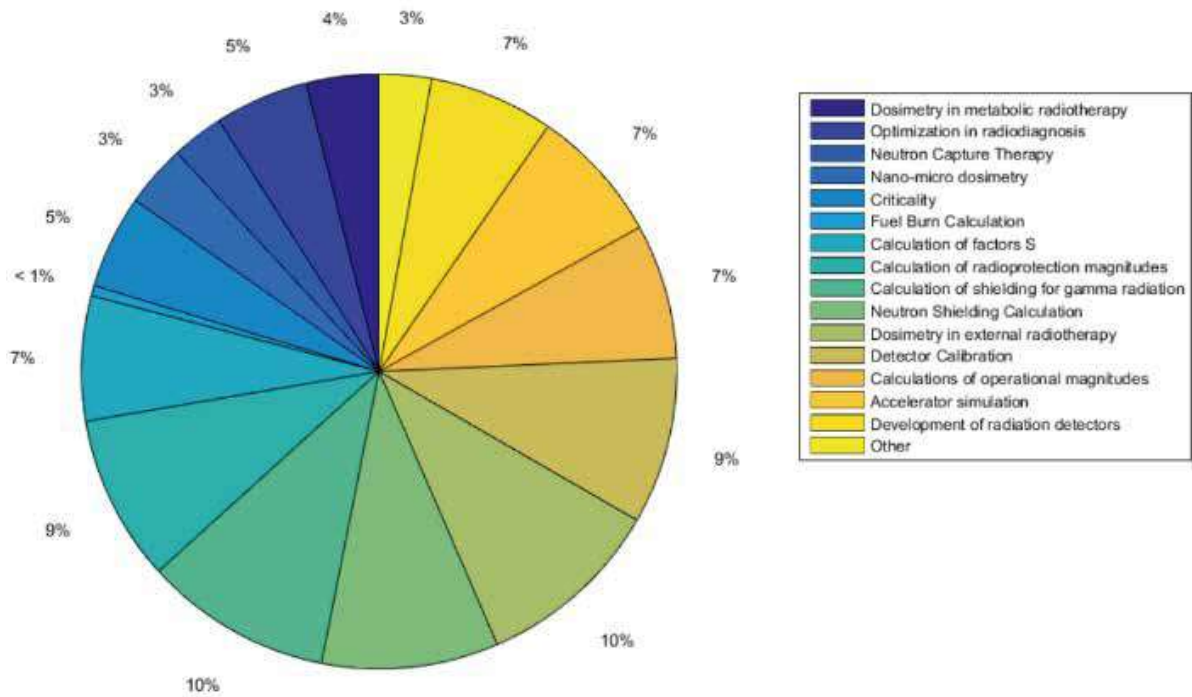
Regarding the types of institution, the following responses were obtained: University Institute (27%), Hospital Institute (8%), Research and Development Institute (44%), Little Institute or Emergency Response Preparedness Authority (6%), Nuclear Regulatory Authority (10%), Other (4%).



Regarding the type of simulated particles using the Monte Carlo method, the following response was obtained:



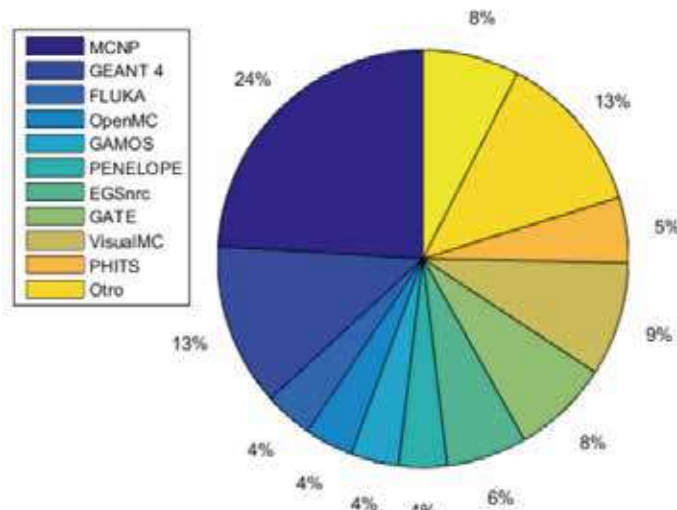
The uses of the Monte Carlo methodology indicated were the following:



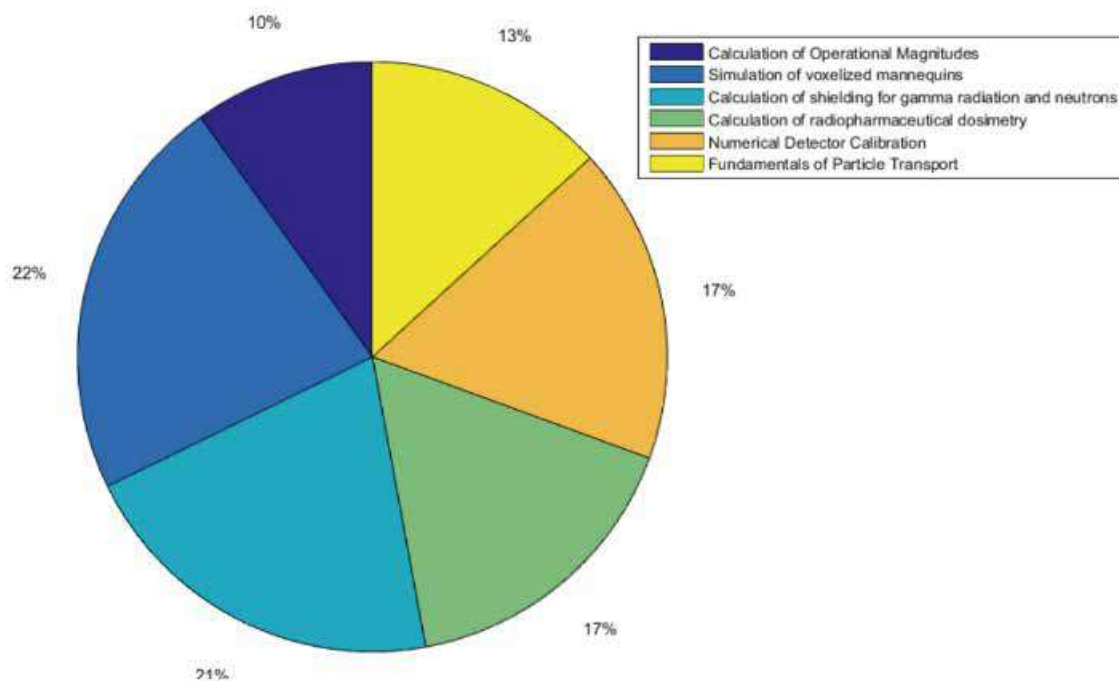
Regarding the experience of using Monte Carlo, the participants indicated: High level (42 %), Intermediate level (39 %), Low level (18 %).

The operating systems used to run the Monte Carlo codes were distributed as: Linux (52 %), MaxcOs (6 %), Windows (38 %), UNIX (4 %).

The MC codes used are:



- In the particular case of the MCNP code, they were asked to indicate the version of the code. Of the 18 codes, 2 correspond to version 5.1 (11%), 14 to version 6.1 (78%) and 2 to version 6.2 (11%).
- Regarding the question, have you participated in any numerical dosimetry interlaboratory comparison exercise? The answer was: Yes (24 %), No (76 %).
- Regarding the interest in participating in a computational dosimetry interlaboratory comparison exercise organized by REPROLAM/IAEA. The participants indicate: Yes (97 %), No (3 %).
- Next, the results of the question related to the access to the "cluster" to execute the Monte Carlo code in several processes are presented. The answer was: Yes (53 %), No (47 %)
- Are you interested in the possibility of using the Monte Carlo code installed on a remote computer? The answer was: Yes (87 %), No (13 %)
- In terms of training, the answers are as follows:



Another 12 requests for training were received, these are detailed in the attached report. On the other hand, 9 comments/suggestions were received, which are included in the attached report.

Through this survey, developed within the framework of the RLA 9088 project, the IAEA in collaboration with REPROLAM contacted and collected relevant information about the different actors that perform Computational Dosimetry in the Latin-American region.

Although the number of participants in the survey is important, a concentrated distribution is observed with respect to the countries of belonging, in this case 61% corresponds to Argentina. The work topics are distributed almost uniformly, not finding one preponderant. Regarding the level of users in the use of MC, it is observed that it is distributed homogeneously between intermediate level and high level. 76% of the respondents answered that they did not participate in intercomparison exercises, and almost 100% of the respondents are interested in participating in a computational dosimetry intercomparison exercise.

This survey will allow future actions to be taken regarding issues such as the installation of Monte Carlo codes to be used from remote access, as well as meeting the needs for training and intercomparison exercises in the region.

"WEBINAR FOR FIRST RESPONDERS IN A RADIOLOGICAL EMERGENCY, FOCUSED ON FIREFIGHTERS AND MEDICAL-SANITARY PERSONNEL ORGANIZATIONS"

DATE: WEDNESDAY, AUGUST 31, 2022

TIME: AT 15:00 HS CEST- (VIENNA)

Organized by: IAEA Incident and Emergency Center (IEC) and TCLAC

Duration: 3 hours 30 minutes

The objective is to provide instruction to the personnel of the first response organizations, in particular, fire departments or equivalent units and health and medical personnel of ambulances and hospitals, on specific and relevant aspects, for a timely, effective and efficient response to a situation of nuclear or radiological incident or emergency, regardless of its cause, whether accidental or an intentional act, with all safety precautions for them as first responders.

The seminar is aimed at members of first response organizations for radiological emergencies, with emphasis on:

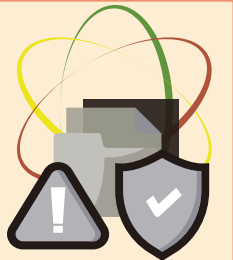
- organizations of fire brigades,
- CBRN units,
- health and medical response at the scene and primary referral hospital.

Members of other organizations responsible for various aspects of radiological emergency response are also welcome, such as:

- staff of Emergency Operations Centers,
- civil protection,
- regulatory bodies.

You can register before August 29 using the following link (or copy and paste the address into your browser):

https://teams.microsoft.com/registration/kxTyotGkf0utB4Gc-gk9cSg,6A9lQJsRI0Wcu5Os-JmYMw,ZY3cW_ndFkC55-yl-uaebg,VLMqntoBW0SquFmrEckzTA,PZ5SmEhmq0Ko8XA5R_1Jhw,Zk6t6mKRCEy8-oY0i9hc7A?mode=read&tenantId=a2f21493-a4d1-4b7f-ad07-819c824f5c4a



CULTURA DE SEGURIDAD

SAFETY FIRST

Space dedicated to common understanding and the promotion of Safety Culture through information, analysis, dissemination of experiences and related news.

BASIC ELEMENT 3.

¿IS A FUNDAMENTAL SAFETY CULTURE FEATURE THAT AN ORGANIZATION HAS THE HABIT FOR TIMELY IDENTIFYNG AND SOLVING SAFETY ISSUES?

Safety incidents happened because situations or problems were overlooked as mainly they were deemed not being important or they had happened before with any consequence for safety, but ignored them led to materialize of the event in many cases

Thus the identification and treating of safety related problems as part of its habitual behaviour should be always a concern for the organization and its managers as its resulting consequence could be an accident being safety severe and costly. Giving due importance to detected or shown safety issues illustrates the organization concern about safety and it becomes a feature of a strong Safety Culture.

To show this concern the organization should habitually have diverse mechanisms to detect and notify operational deviations to procedures and regulations which may affect safety and consequently for effective treating by the corresponding authorities. The promotion and encouraging of workers participation on safety issues should be a considered a main condition by the organization in order to engage them on safety issues as well as the organization management should demonstrate that this involvement is crucial and fundamental to it.



Detection itself should not be deemed as enough but the potential hazard and possible severity should be known for which the organization should have procedures or ways for performing a timely evaluation as well as for applying solution measures adjusted to each case.

It should be emphasized that although the safety in the organization is deemed satisfactory it must not be deemed enough because that fact gradually drives to self-complacency and consequently to losing or decreasing the capability to detect problems and reducing their skills for keeping an alert and questioning attitude as a feature for timely identification of any safety issue and preventing and accident.

Finally a factor which may favour this basic element of Safety Culture is the acquisition of organizational and individual skills which identify an High Reliable Organization (HRO) whose characteristics are those of preparing and responding to unexpected situations and making it highly resistant to the safety issues.

The promotion and incorporation of managers and individuals of organization to this process in a participative way belongs to the organization in such a way that process will become habitual and keeping along the time.

The safety of organization is not determined by the absence of accidents but by the permanent questioning attitude for detecting and assessing and solving the safety concerns as a distinctive feature that engage both the manager as individuals of organization.

ACCREDITATION OF THE SECONDARY CALIBRATION LABORATORY DOSIMETRIC (LSCD / IPEN)



On June 22, the accreditation certificate was delivered by the National Institute of Quality - INACAL to the Secondary Dosimetric Calibration Laboratory - LSCD of the Peruvian Institute of Nuclear Energy-IPEN, under the Peruvian Technical Standard NTP ISO /IEC 17025:2017, which designates them as a calibration laboratory in 3 magnitudes: Kerma in Air, Dose absorbed in water and the Equivalent in environmental dose. Thus managing to position the LSCD - IPEN, both nationally and internationally, as a national reference center in metrology with regard to ionizing radiation.

The ceremony began with the words of Lic. Enrique Rojas Pereda, head of the Secondary Dosimetric Calibration Laboratory, who thanked the members of his work team for the effort they made to achieve this great reward; as well as the support received by Senior Management during these four years of work with a view to obtaining accreditation.

Continuing with the ceremony, Eng. Alejandra Rodríguez Alegría, director of INACAL Accreditation, highlighted three concepts exposed in the IPEN mission, which are: safety, efficiency and effectiveness. Concepts that now with the accreditation provided take on greater importance.

She stressed that the Management System accredited under the 17025: 2017 standard allows demonstrating that the laboratory operates competently and that it can generate valid results through compliance with requirements on resources, calibration processes and management processes, achieving that the way of operating is systematic and sustainable.



Then the President of IPEN, Dr. Heriberto Sánchez, congratulated the effort made by the LSCD team in obtaining accreditation, even in the midst of the national state of emergency due to COVID 19. He also recognized the constant support of the international technical cooperation provided by the International Atomic Energy Agency, thanks to which part of the equipment and maintenance of the facilities of this laboratory has been obtained.



NOW AVAILABLE: E-LEARNING COURSE ON IAEA SAFETY STANDARDS IN SIX LANGUAGES

This e-learning course provides an overview of the purpose, scope, structure, development, and uses of IAEA safety standards. The target audience is staff from national and international institutions and organizations involved in the drafting and implementation of national standards and regulations, as well as people interested in learning more about IAEA safety standards and how to apply them..

<https://www.iaea.org/newscenter/news/now-available-e-learning-course-on-iaea-safety-standards-in-six-languages>

PROJECT RLA6091:

REGIONAL TRAINING COURSE ON QUALITY ASSURANCE AND DOSIMETRY IN GENERAL RADIOGRAPHY (CONVENTIONAL AND DIGITAL), FLUOROSCOPY AND INTERVENTIONAL RADIOLOGY

SAN JOSÉ, COSTA RICA

14 TO 18 NOVEMBER 2022

The purpose of the event is to train participants on aspects related to the physics, technology, quality assurance, quality control and dosimetry in general radiography (conventional and digital), fluoroscopy and interventional radiology.

In recent years, important technological advances have been observed in radiation medicine applications in Latin America and the Caribbean and consequently, education and training of medical physicists (MPs) have become instrumental in such practices. This project intends to improve the quality and safety of medical practices through the implementation of international recommendations and increasing the number of qualified MPs.

The participants should be clinically qualified medical physicists providing services in a clinical environment, performing QC and dosimetry procedures for diagnostic radiology.

The working language(s) of the event will be **English and Spanish**.

Nominations received after 12 August 2022 will not be considered.

To register you must do so through: <https://Intouchplus.iaea.org>

Event reference: EVT2204006