



Conference Programme

Of
The Fourth International Conference on Radiation And Application

ICRAA'4

April 13-15, 2025

Jointly Organized by

The University of Sciences and Technologies Houari-Boumediene - USTHB

And

The Algerian Atomic Energy Commission - COMENA

Sponsored by



Conference programme

Saturday 12th, 2025	
16h00-19h00	Registration & Welcome Reception

Sunday April 13th, 2025	
8h00-9h00	Registration
9h00-9h45	Opening Ceremony
Session 1: Topic3 “Radiological and Medical Physics”	
Chair : Pr. Nouredine MOUSSAOUI	
9h50-10h30	<i>Plenary Conference 1</i> Prof. Habib ZAIDI, Geneva University Hospital, Switzerland <i>Quantitative molecular imaging in the era of precision medicine</i>
10h30-11h00	Coffee Break
11h00-11h20	Maroua BHAR (Kais MANAI), FST / Tunisia. T3-O1: Evaluation of patient received dose during an interventional cardiology examination using Monte Carlo simulation
11h20-11h40	Ismail ASAAD, SUE / Iraq T3-O2: Investigate the effects of single X-ray doses -Low and high doses- on Haematological parameters of male Albino Rats
11h40-12h00	Hande UNAI, AKDU/ Turkey T3-O3: Investigation of the Effect of Patient Body-Mass Index on Dose in CT Scan
12h00-14h00	Lunch Break
Chair: Pr. Chafik BENCHOUK	
14h00-14h20	Assya BOUGHALIA, CRNA / Algeria T3-O4: Toxicity and risk after using new modalities of radiotherapy in Algeria: Retrospective intercomparison study
14h20-14h40	Maroua BHAR, CNSTN /Tunisia T3-O5: Monte Carlo simulation of a prototype of monitoring of positrons in biological matter: Application to Nuclear Medicine
14h40-15h00	Yilmaz BILEK, AKDU / Turkey T3-O6: Can be volumetric arc therapy alternative to brachytherapy in advanced cervical cancer radiotherapy?
15h00-15h20	Zeinebou CHEIKH SIDIYA, ISTMT / Tunisie. T3-O7: First Dosimetric Study for Nasopharyngeal Cancer in Mauritania: Insights from Three Techniques: 3D-CRT, 3D-CRT + Electrons, and VMAT
15h20-15h40	Ali MOSTEFA-KARA, IGR / France T3-O8: Impact of ionizing radiation and radiotherapy in cancer treatment
15h20-16h10	Coffee Break & Poster -Topic3
Session 2: Topic4 “Nuclear Reactor Physics”	
Chair : Prof. Hiroshi HIDAKA	
16h10-16h50	<i>Plenary Conference 2, Prof. Victor Hugo SANCHEZ ESPINOZA, KARLSRUHE Institute of Technology, GERMANY, Multiphysics Analysis of Reactor Cores</i>
16h50-17h10	Fouad AYAD, CRNA /Algeria T4-O1: Numerical simulation of the IAEA benchmark regarding Nuclear Reactor Safety (NRS) accident scenarios
17h10-17h30	Cesar QUERAL, UPM / Spain T4-O2: Analysis and simulation of passive systems in VVER reactors
17h30-17h50	Youcef BOUAICHAOU, CRNB / Algeria T4-O3: Numerical validation of fluid-to-fluid similarity theory for heat transfer with fluids at supercritical pressures
17h50-18h10	M Fouzi BELAZREG, CRNA / Algeria T4-O4: Development of a simulation platform and supervisory control for dynamic simulation of pressurized water reactor in load following mode of operation
18h10-18h30	Ahmed HADJAM, COMENA / Algeria T4-O5: Steady-State Qualification of the NuScale Small Modular Reactor Operation Using the RELAP5/SCDAPSIM3.4 System Code
18h30-18h50	Rabah BENABID, CRNB /Algeria T4-O6: Impact assessment of electric grid resilience on nuclear power plant offsite power reliability considering HILP event
18h50-19h10	Cesar QUERAL, UPM / Spain T4-O7: Risk Reduction by means of Advanced Technology Fuels

Monday 14th, 2025	
Session 3: Topic1 Radiation Matter Interaction	
8h30-10h10	Chair: Prof. Nadia YAHLALI
8h30-9h10	<i>Plenary Conference 3</i> Prof. Robert PAGE, LIVERPOOL UNIV, UNITED KINGDOM <i>Exploring the limits of observable nuclei</i>
9h10-9h30	Ismail Hakkı SARPUN, (Abdullah AYDIN), KKKU /Turkey T1-O1: Deep learning algorithms to predict the production cross sections of bromine-77 radionuclide
9h30-9h50	Sabrina GOUASMIA, IRB / Croatia T1-O2: Investigation of Crater Formation Induced by Gold Cluster Ions: Experimental and Theoretical Approaches
9h50-10h10	Ibtissem HANNACHI, Batna 1 Univ Algeria T1-O3: Spectral Line Shape Broadening under Oscillating Electric and static Magnetic Fields
10h10-10h40	<i>Coffee Break & Poster -Topic1</i>
	Chair: Prof. Sergey TASKAEV
10h40-11h00	Ismail Hakkı SARPUN, AKDU/Turkey T1-O4: Single Folding Potential Calculations in I-127
11h00-11h20	Mourad FOUKA, CRAAG Algeria T1-O5 :Simulating Atmospheric Neutrino Oscillations for Neutrino Mass Hierarchy Discovery
11h20-11h40	Djamila MOKHTARI, FP-USTHB Algeria T1-O6: Temperature dependent pure isoscalar neutron-proton pairing gap equations.
11h40-13h00	<i>Lunch Break</i>
Session 4: Topic2 Nuclear Techniques and Detection	
13h00-14h40	Chair: Prof. Robert PAGE
13h00-13h40	<i>Plenary Conference 4, Prof. Sergey TASKAEV, BUDKER Institute of Nuclear Physics, RUSSIA,</i> <i>Applications within particle accelerators</i>
13h40-14h00	Radia RAHALI, GANIL France T2-O1: Lanthanide Targets for Cutting-Edge Nuclear Research
14h00-14h20	Thierry DELVIGNE, SYSCADE, Belgium T2-O2: Combining X-Ray Inspection and Radiologic Characterization for a better evaluation of total radioactivity content in nuclear wastes
14h20-14h40	Mireia SIMEO, IFIC (UV-CSIC) Spain T2-O3: Actions within the framework of the radiological emergencies program of Valencia Region
14h40-15h00	<i>Coffee Break & Poster Session Topic2 & Topic4</i>
15h10-16h30	Chair Prof. Victor Hugo Sanchez ESPINOZA
15h10-15h30	Nadia YAHLALI, IFIC Spain T2-O4: Development of Noble element detectors for neutrino experiments at IFIC and application prospects to medicine and environmental radioprotection
15h30-15h50	Fares BOUSSAHOUL, IRB Croatia T2-O5: Enhanced Micro-RBS Sensitivity for Spatial Distribution Analysis of Heavy Elements
15h50-16h10	Wassila BOUKHENFOUF, Univ Setif 1 Algeria T2-O6: Estimation of radon levels in marble samples using gamma spectrometry with a NaI (Tl) scintillation detector
16h10-16h30	Mahmoud IZERROUKEN, CRND Algeria T2-O7: Investigation of Neutron irradiation- induced defects in BCF12 plastic scintillators
16h30-18h00	<i>Poster Sessions Topic2 & Topic4</i>
20h00-22h30	<i>Conference Dinner</i>

Tuesday 15th, 2025	
Session 5: Topic5 Radiation in Industry, Life and Environment	
8h40-10h20	Chair Prof. Abderrahim GUITTOUM
8h40-9h20	<i>Plenary Conference 5</i> Prof. Hiroshi HIDAKA, NAGOYA UNIV, JAPAN <i>Isotopic variations of solar planetary materials caused by neutron capture reactions in space</i>
9h20-9h40	Dalila MOUDIR, CNRA /Algeria T5-01: Chemical durability study of Rb doped nepheline syenite $RbAlSi_2O_6$ as a potential nuclear waste immobilization matrix
9h40-10h00	Lylia HAMIDATOU, CRND /Algeria T5-02: Elemental Analysis of Medicinal Plants Using the k_0 -INAA Method at NUR Research Reactor
10h00-10h20	Nour El Houda LAHOUEL (Asmaa BENETTAYEB), USTOMB /Algeria T5-03: Realization, control, and supervision of a laboratory-scale mini-pilot project to improve the removal and recuperation of radioactive pollutants by using new bioadsorbent
10h20-10h50	<i>Coffee Break & Poster-Topic 5</i>
10h50-12h10	Chair: Prof. Ismail ASAAD
10h50-11h10	Anissa HAMMADI, CRNA / Algeria T5-05: Spatial assessment of natural soil radioactivity and its dosimetric impact on the population of Ghazaouet, Algeria
11h10-11h30	E. Dominique DURASTANTI , IPHC / France T5-06: Dynamic study of Oklo cores, towards the influence on life
11h30-11h50	Hiroshi HIDAKA, NU / Japan T5-07: New insights of the Oklo natural fission reactors elucidated from isotopic studies using state-of-the-art analytical techniques
11h50-12h10	Irines AKAL, BET ZERARGA, Algeria T5-08 : Optimizing architectural design and HVAC strategies for Radiation Protection : Case study of an anti-Cancer center
12h00-12h30	CLOSING OF THE CONFERENCE
12h30-14h00	<i>Lunch Break</i>
14h15-19h30	<i>Social Programme</i>