



10th International Conference on High Level Environmental Radiation Areas

Strasbourg, 27 - 30 June 2022

<http://ichlera2020.fr>



Program

(27 June 2022 version)

Monday 27th June 2022

08h00 – 09h00	Registration
09h00 – 09h15	Opening address : <i>A. NOURREDDINE.</i> , Chair of organizing committee <i>R. BARILLON</i> , Vice President Strasbourg University <i>S. COURTIN</i> , Director IPHC Strasbourg <i>M. SOHRABI</i> , ICHLERA President
Session 1 : Novel Radiation Protection Philosophy and Concepts – Chair : L. TOMMASINO (Roma, Italy)	
09h15 – 10h00	Keynote lecture : <i>M. SOHRABI (Tehran, Iran)</i> Modern universal standardized trends in worker and public exposure monitoring and control in 21 st century by Sohrabi URPS-based hypothesis
10h00 – 10h15	Invited talk 1.1: <i>F. SHANNOUN (UNSCEAR, Vienna, Austria) *</i> The United Nations Scientific Committee on the Effects of Atomic Radiation current programme of work and projects related to low dose and low-dose rate
10h15 – 10h45	Invited talk 1.2 : <i>S. BOUFFLER (UKHSA, London, United Kingdom) *</i> UNSCEAR 2020/2021 Report on Biological mechanisms relevant for the inference of cancer risks from low-dose and low-dose-rate radiation
10h45 – 11h15	Coffee Break + Onsite Poster Session
Session 2 : Handling of Human Exposures and Responsibilities – Chair : : M. BALCAZAR (Ocoyoacac, Mexico)	
11h15 – 11h45	Invited talk 2 : <i>J. Mc LAUGHLIN (Dublin, Ireland)</i> Public and expert perceptions of risks from radiation
11h45 – 12h00	Talk 2.1 : <i>L. LUZZI (Roma, Italy)</i> Inventory of NORM-related industrial sectors in Italy: preliminary results
12h00 – 12h15	Talk 2.2 : <i>P. BOSSEW (Berlin, Germany)</i> True and spurious anomalies in ambient dose rate monitoring
12h15 – 12h30	Talk 2.3 : <i>N. MARTIN-BURTART (Mississauga, Canada)</i> Calibration of radiation portal Monitors for characterization of historic low-level radioactive waste
12h30 – 14h00	Lunch

Session 3 : Impact of Environmental Exposure – Chair : M. SOHRABI (Tehran, Iran)	
14h00 - 14h30	Invited talk 3 : V. BRETON (Clermont-Ferrand, France) Impact of natural radioactivity on microorganisms
14h30 - 14h45	Talk 3.1 : A. NADHIYA (Kuala Lumpur, Malaysia) * Determination of heavy metal level in Tuna fishes from Laccadive sea and their associated health risk
14h45 - 15h00	Talk 3.2 : G. HOLUB (Bordeaux, France) Bacterial diversity characterization of naturally radioactive mineral springs: Role of these bacterial communities in uranium biogeochemistry
15h00 - 15h15	Talk 3.3 : S. SINGH (Amritsar, India) High prevalence of uranium in groundwater of Punjab: A comparative study of its distribution, potential source & health risk assessment
15h15 - 15h30	Talk 3.4 : S. KOLOVI (Clermont-Ferrand, France) Radioactive mineral springs: A first approach of modelling the radiation exposure on microorganisms
15h30 - 15h50	Coffee Break + Onsite Poster Session
Session 4 : Environmental Measurements and Analysis – Chair : J. Mc LAUGHLIN (Dublin, Ireland)	
15h50 - 16h20	Invited talk 4 : M. DEL NERO (Strasbourg, France) Linking speciation and soil-water-plant transfers of natural radionuclides in a wetland impacted by a former U mine: recent advances from the pluri-disciplinary and multi-partners project INSPECT-NEEDS
16h20 - 16h35	Talk 4.1 : G.D. TEBA (Jena, Germany) Biogeochemical behaviour of tellurium (Te) and caesium (Cs) at the continent-ocean interface: preliminary scenarios for accidental radionuclide releases
16h35 - 16h50	Talk 4.2 : S. GUO (Strasbourg, France) In situ ATR - FTIR study of uranyl sorption at illite - solution interface in the presence of phosphate ions
16h50 - 17h05	Talk 4.3 : B. HERNÁNDEZ MÉNDEZ (Edo. de México, Mexico) * Environmental Radiological Baseline for Unconventional Oil and Gas Zones in Mexico
17h05 - 17h20	Talk 4.4 : B. SALAS (Mexico City, Mexico) *
17h20 - 17h25	P 4.1 : Radioactive waste management without adherence to standards at the Laguna Verde Nuclear Power Plant, Mexico
18h30 -	Welcome reception at the Hotel de Ville

Session 5 : Environmental Monitoring for Radiation Protection – Chair : V. BRETON (Clermont-Ferrand, France)	
9h00 - 9h30	Invited talk 5 : L. TOMMASINO (Roma, Italy) Radon measurements indoors, in soil and in water by track detectors and/or by Geiger-Muller counters
9h30 - 9h45	Talk 5.1 : H. HASHIMOTO (Hirosaki, Japan) * Development of a portable Type personal dosimeter for internal and external dose assessments
9h45 - 10h00	Talk 5.2 : Y. TAMAKUMA (Nagasaki, Japan) * Site-specific dose conversion factors for radon progeny based on actual aerosol size distributions at various environments
10h00 - 10h15	Talk 5.3 : VEERASAMY (Tokyo, Japan) * Determination of ²²⁶ Ra/ ²³⁸ U and ²²⁸ Ra/ ²³² Th disequilibrium in surface soils from HBRA, Odisha, India and its radiological implications
10h15 - 10h30	Talk 5.4 : F. LEONARDI (Roma, Italy) Radon spatial and seasonal variations in University's buildings located in an Italian karst region
10h30 - 10h45	Coffee Break
Session 6 : NORM & TENORM – Chair : S. TOKONAMI (Hirosaki, Japan)	
10h45 - 11h15	Invited talk 6.1 : M.U. KHANDAKER (Selangor, Malaysia) * NORMs in cultivated honey in Malaysia and concomitant dose to the consumers
11h15 - 11h30	Invited talk 6.2 : R.C. RAMOLA (Tehri Garhwal, India) * Estimation of radiation dose due to Thoron and progeny inhalation in high Background natural radiation area of Eastern Coastal Area of Odisha, India
11h30 - 11h45	Talk 6.1 : M. BALCAZAR (Ocoyoacac, Mexico) Good RAD7 performance for high radon levels
11h45 - 12h00	Talk 6.2 : S. RATNAYAKE (Karlsruhe, Germany) Radiation Dose Assessment and Mobiliy Studies of Thorium in Soil from a High Level Natural Background Radiation Area in Sri Lanka
12h -	Lunch

Special session Oklo'50 Anniversary

(Institut de Science et d'Ingénierie Supramoléculaires)

Session Ok 1 : A. Oklo, from Natural core breeding to the Oklo discovery – Chair : B. GALL (Strasbourg, France)	
14h00 - 14h20	Talk Ok 1.1 : F. GAUTHIER-LAFAYE (Strasbourg, France) The Oklo phenomenon, discovery, first questions, first answers
14h20 - 14h40	Talk Ok 1.2 : J.F. DOZOL (Cadarache, France) From routine sample measurements in CEA to the Oklo phenomenon
14h40 - 15h00	Talk Ok 1.3 : J.C. NIMAL (Paris, France) * Historical simulations of Oklo cores
15h00 - 15h20	Talk Ok 1.4 : D. LOUVAT (Paris, France) Oklo natural analogue of radioactive waste disposal, summary of European Commission projects' results (1991-1999)
15h20 - 15h40	Talk Ok 1.5 : S.E. BENTRIDI (Khemis-Miliana Algeria) Influence of Initial poisons and clays on the criticality of Oklo natural nuclear reactors
15h40 - 16h10	Coffee Break

Session Ok 2 : From Oklo samples to natural core simulations – Chair : F. GAUTHIER-LAFAYE (Strasbourg, France)	
16h10 – 16h30	Talk Ok 2.1 : A. EL ALBANI (Poitiers, France) The Gabonionta: Great Oxidation Event, reactors and Life...
16h30 – 16h50	Talk Ok 2.2 : A. MESHIK (Washington, USA) Natural Nuclear Reactors: prediction, search, discovery, operation and implications
16h50 – 17h10	Talk Ok 2.3 : H. HIDAKA (Nagoya, Japan) Evidences of fast neutron operating in Oklo
17h10 – 17h30	Talk Ok 2.4 : E.D. DAVIS (Kimberley South Africa) * The Oklo natural fission reactors and dynamical models of dark energy
17h30 – 17h50	Talk Ok 2.5 : B. GALL (Strasbourg, France) Parallel between natural Oklo cores and industrial reactors operating

Wednesday 29th June 2022

Session 7 : Radon, Thoron & Decay Products Measurements – Chair : P. BOSSEW (Berlin, Germany)	
9h00 – 9h30	Invited talk 7.1 : S. TOKONAMI (Hirosaki, Japan) Up-to-date dose conversion factors for radon isotopes and their historical overview
9h30 – 10h00	Invited talk 7.2 : L. FONT GUITERAS (Barcelona, Spain) On the use of numerical models to predict/mitigate indoor radon levels in highly contaminated areas
10h00 – 10h15	Talk 7.1 : C. DI CARLO (Roma, Italy) Proposal of an affordable method to estimate indoor thoron concentration close to the walls using active radon monitors
10h15 – 10h30	Talk 7.2 : M. SOHRABI (Tehran, Iran) Some Applications of novel polycarbonate/ACF radon detectors for personal and environmental Monitoring
10h30 – 10h45	Coffee Break + Onsite Poster Session
Session 8 : Nuclear Power Plant Accidents & Risk Communication – Chair : M. DEL NERO (Strasbourg, France)	
10h45 – 11h15	Invited talk 8 : F. BOCHICCHO (Roma, Italy) Exposure of people living around nuclear power plants and other nuclear facilities
11h15 – 11h30	Talk 8.1 : G. DOUGNIAUX (Paris, France) Detection limit variation against coarse aerosol during airborne contamination measurement with CAM
11h30 – 11h45	Talk 8.2 : M. JABBAD (Safi, Morocco) * Grain size effect on radon exhalation rate and uranium activity of Moroccan sediment
11h45 – 12h00	Talk 8.3 : N. ARBOR (Strasbourg, France) A drone-borne gamma spectrometry system for environmental radioactivity monitoring
12h00 – 12h15	Talk 8.4 : L. STUTTGE (Strasbourg, France) Development of a new material for neutron detection
12h15 – 12h20	P 8.1 : K. IWAOKA (Chiba, Japan) * Calculation tool for iodine 131 biodistribution depending on the aerosol size distribution
12h20 – 12h25	P 8.2 : C. KRANROD (Hirosaki, Japan) * Preliminary study on radon level, ambient aerosol, and external gamma radiation dose rate at lung cancer area in Northern, Thailand
12h25 – 12h30	P 8.3 : M. HOSODA (Hirosaki, Japan) * Calibration experiments for radon in drinking water measurements using portable-type electrostatic-collection radon monitors
12h30 -	Lunch
15h45 – 17h30	Guided Boat Tour (Strasbourg city)
20h00 – 23h00	Gala dinner (Maison Kammerzell)

Session 9 : Radiobiological Effects, Epidemiology & Health Impacts - Chair : L. FONT GUITERAS (Barcelona, Spain)	
9h00 - 9h15	Talk 9.1 : P. BEAUDIER (Bordeaux, France) Towards the characterization of single-cell molecular response to ionizing radiation
9h15 - 9h30	Talk 9.2 : B FRANGIONE (Ottawa, Canada) Maternal and paternal exposure to low dose radiation and adverse birth outcomes: preliminary findings from a systematic review and meta-analysis
9h30 - 9h45	Talk 9.3 : M. IDLIL (Rabat, Morocco) Low dose rate radiation exposure effects among medical workers from the knowledge of epidemiologic studies
9h45 - 10h00	Talk 9.4 : C. ELHASSANE (Algiers, Algeria) * Ionising radiation exposure of Medical staff: risks and prevention
10h00 - 10h15	Talk 9.5 : Q. RAFFY (Strasbourg, France) Radiolysis of concentrated myoglobin by accelerated ions
10h15 - 10h30	Talk 9.6 : A DANVIN (Strasbourg, France) Effects of the dose-rate on the radiolysis of water and small protein biomolecules
10h30 - 10h45	Coffee Break + Onsite Poster Session
10h45 - 12h00	General assembly
12h00	Closing remarks

Posters (on-site)

P 1	A. ARNONE (Strasbourg, France) Radiolysis of a small peptide in solution by accelerated ions, electrons and X-rays
P 2	A. BELAFRITES (Jijel, Algeria) Assessment of radioactivity levels and radiological hazard indices in phosphate samples from Algeria
P 3	S. CHEFSON (Strasbourg, France) Comparison of experimental and Geant4-DNA simulated data of yields of water radiolysis species
P 4	S. FERRERES (Strasbourg, France) Study of the mobility of uranium (VI) and organic matter of a soil from an enhanced natural radioactivity area.
P 5	C. GALINDO (Strasbourg, France) Mechanistic study of Myoglobin and Apo-Myoglobin radiolysis by accelerated ions
P 6	S. GEORG (Strasbourg, France) Study of the speciation and mobility of uranium (VI) in natural waters: Effect of organic matter
P 7	F. LEONARDI (Roma, Italy) Spatial variability in large buildings of university campus: a case-study to identify the best measurement protocols
P 8	Y. OMORI (Hiroasaki, Japan) Evaluation method of natural gamma dose rates using an NaI(Tl) spectrometer under coexistence of radiocesium and natural radionuclides
P 9	J. RIFFAUD (Strasbourg, France) Assessment of Potential Activation in Food Products Irradiated with High Energy X-Rays: Experimental and Modelling Approach