

Program of Session S5

Nuclear Science and Technology

(other activities are mentioned in the conference's main program)

Date: October 13-15, 2025

Venue: Phenikaa University, Duong Noi, Hanoi

Organizers: Phenikaa University, NYCU Institute of Physics, and Vietnam Physical Society

No.	Time	Title	Presenter
October 13, 2025 Morning			
10:45 – 11:45		Oral session chaired by Nguyen Ngoc Anh ; location: Room 4 (Meeting Room 3 - 2nd Floor A10)	
S5.K1	10:45 – 11:15	To be updated	Prof. Dao Tien Khoa Vietnam Atomic Energy Institute
S5.K2	11:15 – 11:45	Present Status of a Molten Salt Reactor Nuclear Power Plant Development in Indonesia	Dr. Peng Hong Liem Nippon Advanced Information Services Ltd.
October 13, 2025 Afternoon			
13:30 – 15:10		Oral session chaired by Le Ngoc Thiem, Nguyen Quang Hung ; location: Room 4 (Meeting Room 3 - 2nd Floor A10)	
S5.I1	13:30 – 13:55	Anomaly in the production of ^{60}Fe nucleus in massive stars: the role of nuclear physics inputs	Prof. Nguyen Quang Hung Duy Tan University
S5.I2	13:55 – 14:20	Nuclear reaction study with low-energy proton beams from the 5SDH2-pelletron accelerator at VNU-University of Science in Hanoi	Dr. Le Xuan Chung Vietnam Atomic Energy Institute
S5.O1	14:20 – 14:45	Fast neutron spectra: Unfolding and direct measurement with scintillation crystals	Dr. Nguyen Duy Quang Vietnam Atomic Energy Institute
S5.O2	14:45 – 15:10	Improving the ATWS analysis using data assimilation and machine learning	Dr. Nguyen Huu Tiep Vietnam Atomic Energy Institute
15:25 – 16:00		Poster session 1	
16:00 – 17:25		Oral session chaired by Nguyen Huu Tiep, Le Xuan Chung ; location: Room 4 (Meeting Room 3 - 2nd Floor A10)	
S5.I3	16:00 – 16:25	Ionizing Radiation Metrology: Current Status and Future Development toward the National Strategy on Nuclear Application Promotion	Dr. Le Ngoc Thiem Vietnam Atomic Energy Institute

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S5.O3	16:25 – 16:45	Unfolding method for overlapping peaks induced by light charged particles from $p+^6\text{Li}$ reaction at low energies	Ms. Do Thi Khanh Linh Vietnam Atomic Energy Institute
S5.O4	16:45 – 17:05	Microscopic descriptions of the elastic proton scattering on light unstable nuclei based on the Brueckner-Hartree-Fock approach	Dr. Do Cong Cuong Vietnam Atomic Energy Institute
S5.O5	17:05 – 17:25	Development of a Tunable Monochromatic X-ray Source for Pixelated Semiconductor Detector Calibration	Dr. Truong Hoai Bao Phi Vietnam Atomic Energy Institute
October 14, 2025 Afternoon			
15:25 – 16:00		Poster session 2	

List of poster presentations

Poster session 1		
October 13, 2025: 15:25 – 16:00		
Chairpersons: Nguyen Ngoc Anh, Le Ngoc Thiem, Nguyen Huu Tiep, Le Xuan Chung		
S5.P1	Integrated Correction Factor for Ionization Chamber Electrodes in Measurement of Absorbed Dose to Water from a Medical Linear Accelerator: Geant4 Simulation	Dr. Le Ngoc Thiem Vietnam Atomic Energy Institute
S5.P2	Determination of the Conventional True Value of Ambient Dose Equivalent Rate Induced by Gamma Radiation from Reference ¹³⁷ Cs Sources	Dr. Dinh Tien Hung Vietnam Atomic Energy Institute
S5.P3	Evaluation of proton energy and target thickness in cyclotron-based ¹⁸ F production using ISOTOPIA simulations	Ms. Du Ngoc Mai Phenikaa Institute for Advanced Study
S5.P4	Method for Determining Activity Ratios of Radionuclides in Soil and Rock Samples with Different Geological Backgrounds	Dr. Bui Thi Hong VNU University of Science
S5.P5	Assessment of radon concentration in domestic water in Long Khanh area, Dong Nai province	Dr. Truong Van Minh Dong Nai University
S5.P6	Study on the potential use of the Rigaku 200-EGM X-ray generator for inspecting the integrity and internal structure of fuel rods in the đạ lat nuclear reactor	Mr. Pham Xuan Hai Dalat Nuclear Research Institute
S5.P7	Greenhouse gas mitigation in climate-smart agriculture need smart irrigation technologies: A critical review and application potential in Vietnam	Dr. Phung Thi Nga Thanh Do University
S5.P8	Evaluation of kinetic parameters of the Dalat Nuclear Research Reactor with fuel burnup using a Continuous-Energy Monte Carlo method	Mr. Chu Thoi Nam Phenikaa Institute for Advanced Study
S5.P9	Conceptual design of a 240 kWth micro nuclear reactor using potassium heat pipe	Mr. Ngo Huy Hoang Phenikaa Institute for Advanced Study
Poster session 2		
October 14, 2025: 15:25 – 16:00		
Chairpersons: Nguyen Ngoc Anh, Le Ngoc Thiem, Nguyen Huu Tiep, Le Xuan Chung		
S5.P10	ISO 4037 Low Air Kerma Rate X-ray Reference Fields: Simulated Data	Dr. Le Ngoc Thiem

		Vietnam Atomic Energy Institute
S5.P11	Development of a New Analysis Method for Artificial Radionuclides ^{134}Cs , ^{137}Cs , and ^{131}I in Foodstuff and Drinking Water Samples Using a NaI(Tl) Scintillation Spectrometer	Dr. Dinh Tien Hung Vietnam Atomic Energy Institute
S5.P12	Application of a Two-Point Linear Calibration Method for Spectrum Drift Correction in γ - γ Coincidence Spectrometer	Mr. Nguyen Hoang Phuc Dalat Nuclear Research Institute
S5.P13	Role of Nuclear Level Density and Photon Strength Function in Reproducing the Isomeric Ratio of the $^{165}\text{Ho}(\gamma, n)$ reaction	Dr. Nguyen Ngoc Anh Phenikaa Institute for Advanced Study
S5.P14	Evaluating the impact of Elitism in Differential Evolution for the DNRR fuel reloading problem	Dr. Phan Thi Thuy Giang Industrial University of Ho Chi Minh City
S5.P15	Preliminary Digital γ - γ Coincidence Spectroscopy at the Dalat Nuclear Research Reactor	Mr. Phan Bao Quoc Hieu Vietnam Atomic Energy Institute
S5.P16	A comparative bioaccumulation of polonium-210 in common marine organisms in the coastal of Vietnam: implications for bioindicator selection and radiological risk assessment	Dr. Duong Van Hao VNU School of Interdisciplinary Sciences and Arts
S5.P17	Assessment of Natural Radioactivity and Associated Radiological Hazards in Hanoi Vegetable Farm Soils Using HPGe Gamma-Spectrometry	Mr. Tran Viet Hoang Phenikaa Institute for Advanced Study
S5.P18	Neutronic analysis of the NuScale-like Small Modular Reactor (SMR)	Mr. Chu Thoi Nam Phenikaa Institute for Advanced Study