

14. August 2026

Program

ICNTRM2026

The 29th International Conference on Nuclear Tracks
and Radiation Measurements
Kobe University, 24-29th August 2026

Each invited speaker has 50 min, including 10 min discussion.

Each oral presenter has 20 min, including 5 min discussion.

We have three poster sessions on 26th, 27th and 28th.

Monday 24th August 2026

Registration 8:30-

Opening Session	10:00-10:50	Chair Kanasaki
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Welcome address	(10 min)
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Katsutoshi Hirayama, Dean of Graduated School of Maritime Sciences, Kobe University

Welcome address	(10 min)
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Tomoya Yamauchi, President of INTS, Kobe University

In memory of Prof. Sohrabi	(10 min)
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Abdel-Mjid Nurreddine, Past-President of INTS, The University of Strasbourg

In memory of Prof. Tsuruta	(10 min)
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Keiji Oda, Chair of ICNTRM2014, Kobe University

On the Proceedings	(10 min)
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Eduardo Yukihiro, Joint Editors-in-Chief of *Radiation Measurements*

== = *Coffee Break* == =

Session 1, IV	11:10-12:00	Chair Taniike	.
Nuclear Emulsion: A Tracking Detector for a Novel Gamma-Ray Telescope in GeV/sub-GeV Band		(40 +10 min)	
Shigeki Aoki		IV1	
			1

* * * *Lunch* * * *

Session 2, IV, TPC&OT	13:30-15:00	Chair Kodaira	.
The PADC/CR-39 SSNTD at 43: A fading technology or still on track?			
Maria Dugdale		TPC-O1-59	
			18
PADC, from damage formation to chemically etched tracks applications: A 20-years retrospective		(40 +10 min)	
Michel Fromm		IV4-56	
			4
Why are all materials joint into a single class of nuclear solid-state track detectors?			
Valery Ditlov		OT-O1-29	
			81

== = *Coffee Break* == =

Session 3, IV&TPC	15:20-16:50	Chair Barillon	.
An introduction to the wave model: A dynamic description of etch-pit evolution			
Hayato Seiichi		TPC-O2-63	
			19
Measurements and modeling of neutron and light-ion fields using solid-state detectors and track structure theory		(40 +10 min)	
Jeppe Brage Christensen		IV2	
			2
TrackLab: Enhancing Etched-Track Formation Modelling for PADC Detector Response			

Tuesday 25th August 2026

Session 4, SR	09:00-10:00	Chair Fromm	.
Comparative space dosimetry for ISS and Artemis-1 using charge and LET dependent quality factors			
Masayuki Naito		SR-O1-23	9
Track Reconstruction and LET Estimation Framework for Al ₂ O ₃ :C, Mg FNTD-based Space Radiation Dosimetry			
Jun Hu		SR-O2-39	10
Development of on-site space radiation dosimeters for future deep space missions			
Satoshi Kodaira		SR-O3-37	11

== = *Coffee Break* == =

Session 5, IV&LM	10:20-12:10	Chair Naito	.
Recent R&D of scintillators and storage phosphors for radiation measurements			
		(40 +10 min)	
Takayuki Yanagida		IV8-47	8
3D tracking of α particles using FNTD technology: towards dosimetry for Targeted Radionuclide Therapy			
Shota Uno		LM-O1-44	41
Development of New Materials for Fluorescence Nuclear Tack Detector			
Go Okada		LM-O2-40	42
SiPM Frequency-response Calibration for Modulated X-ray Scintillation Decay-time Measurements			
Daichi Sato		LM-O3-49	43

* * * *Lunch* * * *

Session 6, IV, HIN&TPC	13:40-15:10	Chair Kanasaki	.
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Ion Track Research at HIRFL: Fundamentals to Interdisciplinary Applications

(40 +10 min)

Jinglai Duan

IV3-60

. 3

Deciphering the Fine Structure and Chemical Heterogeneity of Pristine Ion Tracks in Polyimide

Yuhui Hu

HIN-O1-08

. 67

A Neuroevolution Potential for Gallium Oxide: Accurate and Efficient Modeling of Swift Heavy-Ion Irradiation

Yaohui Gu

TPC-O3-15

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= = = *Coffee Break* = = =

Session 7, NM&TPC	15:30-16:50	Chair Okada	.
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Developing a track analysis algorithm for neutron dosimetry using PADC detectors

Eduardo Yukihiro

NM-O1-14

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Study of Neutron Energy Estimation for International Standards

Yuki Oda

NM-O2-51

. 62

Development of an Image Processing Program Using Deep Learning to Reduce False Detection of Pseudo-Tracks

Yuki Oda

NM-O3-52

. 63

Modified structure along sub-GeV/u heavy ion tracks in PADC

Tomoya Yamauchi

TPC-O5-06

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Wednesday 26th August 2026

Session 8, LD	09:00-10:00	Chair Okada	.
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Single-shot Faraday polarimetry of transient magnetic-field topology using laser-generated second harmonic

Yuji Fukuda	LD-O2-74		49
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Identification of laser-accelerated quasi-monoenergetic 100 MeV protons using CR-39 track detectors

Masato Kanasaki	LD-O1-62		48
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Interferometric Characterization of a High-Density Gas Jet for Laser Wakefield Ion Acceleration

Mokoto Hayakawa	LD-O3-75		
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= = = *Coffee Break* = = =

Session 9, IV&NPC	10:20-11:50	Chair Kodaira	.
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Effect of temperature on ion-induced tracks	(40 +10 min)		
Isabelle Monnet	IV7		7

Chemical Dispersion Strategies for Isolating Radiocesium in Contaminated Fukushima Soils

Zinnat Rahman	NPC-O1-19		12
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Targeted Extraction of Radiocesium from Wastewater Using a Wood-Derived Carbon-Ceramic Micro-Composite

Ismail Rahman	NPC-O2-24		13
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* * * *Lunch* * * *

Session 10, Poster-1	LM, NM, RA&NHR		(14)
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	13:20-14:50	Chair Ishikawa	.
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3D Microdosimetry in Targeted α -Particle Therapy Using $\text{Al}_2\text{O}_3\text{:C}$, Mg-Based Fluorescent Nuclear Track Detector	LM-P1-22	44
Jun Hu		
Ensemble Classification for Gamma Source Identification Using Liquid Light Guide-Based Cherenkov Sensor	LM-P2-25	45
Sangjun Lee		
Feasibility study of the use of Fluorescent Nuclear Track Detectors in gamma-ray detection	LM-P3-26	46
Rocio Garcia Ginez		
Fabrication of a Neutron-Sensitive Li-Doped Glass Dosimeter	LM-P4-54	47
Hanna Tanaka		
A diamond-based Timepix3 detector for the characterization of the secondary neutron spectrum at high altitude	NM-P1-13	64
Federica Leonardi		
Performance evaluation of a TechnoTrak 2-based neutron personal dosimeter in accordance with ISO 21909-1:2021	NM-P2-43	65
Ryo Hasegawa		
Towards Harmonized PADC-Based Personal Neutron Dosimetry Systems: A EURADOS WG2 Intercomparison	NM-P3-55	66
Antonella Mele		
Optimization and Validation of Radon Exhalation Fitting Models via Open-Source Python framework	RA-P1-10	70
Parvin Mohammadyari		
Application of Nuclear Track Detector in the Indoor ^{222}Rn and ^{220}Rn Investigation of Urumqi City, China	RA-P2-65	71
Nanping Wang		
Indoor Radon, Thoron and Inhalation Dose Assessment in Selected NCR Dwellings Using SSNTDs		

Roshan Lal Sharma	RA-P3-76	72
Assessment of radiological impact of some common food items of North-East India		
Ranjan Kr Kakati	RA-P4-94	73
Study of Indoor Radon, Thoron and Their Progeny in the Environs of Mikir Plateau and Nagaon District, Assam, India		
Ranjan Kr Kakati	RA-P5-93	74
Suitability of a Pocket-Carried Dosimeter/Spectrometer for Gamma Dose-Rate Measurements		
Darwish Almutiran	NHR-P1-07	78
Comparative analysis of alpha-emitting and beta-emitting “hot” particles in the bottom sediments of LRW storage pond using Alpha-track and Imaging Plate radiography		
Irina Vlasova	NHR-P2-99	79

Excursion and Banquet 15:00-21:15



<https://thekobecruise.com>

Thursday 27th August 2026

Session 11, HT	09:00-10:20	Chair Taniike
Cell inactivation induced by heavy ions near the Bragg peak correlates with the density of secondary electrons		
Taisei Mamiya	HT-O1-33	55
Characteristics of alanine dosimeters for ultra-high dose rate electrons, protons and carbon ions		

Satoshi Kodaira	HT-O2-38	
	• • • • •	56
Why Microbeam? Technical Advancements of State-of-the-Art SPICE-QST Microbeam and Its Contributions to Radiation Biology		
Teruaki Konishi	HT-O3-97	
	• • • • •	57
Different requirements for experimental estimations of absorbed dose in radiotherapies with charged particles		
Grazia Gambarini	HT-O4-72	
	• • • • •	58

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 Coffee Break
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Session 12, Sponsors	10:40-11:40	Chair Kanasaki	.
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Chiyoda Technol

Nagase Landauer

Nuclear Fuel Industries

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 Lunch
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Session 13, RA&NHR	13:10-14:50	Chair Ramola	.
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A Gradient Chamber for Radon and Thoron Exhalation Measurements: Sensitivity and Applications		
Dobromir Stefanov Pressyanov	RA-O1-11	
	• • • • •	68
In-Field Performance of Continuous Radon Monitors: Results from the 4th AIRP Intercomparison		
Federica Leonardi	RA-O2-12	
	• • • • •	69
Thoron Exposure Sources and Insights from the UNSCEAR 2024 Global Assessment		
Miroslaw Janik	NHR-O1-02	
	• • • • •	75

Intercomparison of radon, thoron and progeny detectors at the extreme underground site of Domus Aurea

Gennaro Venoso NHR-O2-58
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Natural Radioactivity and Radiation Doses in Fly Ash from Kota Thermal Power Station India

Ajay Kumar Mahur NHR-O3-71
 77

Session 14, Poster-2	HT, NPC, OT,	(15)
	14:50-15:50	Chair Ishikawa

Study on Event Filtering for Compton Imaging in BNCT

Jiye Qiu HT-P1-53
 59

Action Cross-Sections for Strand Breaks of Aqueous Plasmid DNA Induced by Low-Energy Carbon Ions: Quantitative Discrimination of Direct and Indirect Effects near the Bragg Peak

Teruaki Konishi HT-P2-96
 60

Development of a Selective Separation Procedure for Ce, Eu and Y Using LN and DGA Resins

Soo-Been Choi NPC-P1-20
 14

Assessing the Influence of Nutrient Monocations on Radiocesium Phytostabilization by *Persicaria longiseta*

Iqbal Hossen NPC-P2-27
 15

Evaluation of Engineered Mn-Doped MgFe_2O_4 for Selective Capture of Radioactive ^{65}Zn from Nuclear Wastewater

Abhijit Barua NPC-P3-28
 16

Effect of Co-60 on MDA of Gamma-Emitting Radionuclides in HPGe Analysis of Waste

Seung-Gwan Han NPC-P4-46
 17

Dose Mapping Method for Distributed Sources Using 2-Step Bayesian MCMC Based on Sparse Data from KINAC Probe

Jaeyeong Jang	OT-P1-03	83
Comparative Study of SiPM Active Area Effects in TL Dosimetry		
Kyung Taek Lim	OT-P2-05	84
Derivation of Environmental Qualification Items for Distributed Fiber-Optic Sensors in NPP Primary Systems		
Sanghun Shin	OT-P3-09	85
Establishment and Spectroscopic Characterization of ISO 4037 X-ray Reference Fields for Evaluating Detectors		
Tomoya Tsuji	OT-P4-17	86
Generalization of the probability's formulas of many-hit response of an AgBr microcrystal to a light flux.		
Valery Ditlov	OT-P5-31	87
Characterization of spherical silicon dosimeter for radiation exposure measurement in IVR		
Miyu Matsuo	OT-P6-57	88
Environmental Assessment of Heavy Metals in Fly Ash from Kota Thermal Power Station Rajasthan India		
Ajay Kumar Mahur	OT-P7-70	89
The Tandem Accelerator Laboratory of Kobe University (TAcLKU): Overview of Facilities and Research Application		
Akira Taniike	OT-P8-95	90

General Assembly 16:00-18:00 Chair INTS secretary .

Friday 28th August 2026 .

Session 15, IV&NE 09:00-10:10 Chair Kusumoto .

Simulation of Electron Track Structures in Ion Tracks Using PHITS and Analysis of Radiation Detector Responses (40+10 min)

Yuho Hirata	IV5	
	• • • • •	5
Theory of recording an image on a photographic emulsion using an electron beam.		
Valery Ditlov	NE-O1-30	
	• • • • •	31

= = = *Coffee Break* = = =

Session 16, NE-1	10:30-11:50	Chair Okada	.
Measurement of East-West Effect in Cosmic-Ray Muon Flux Using Nuclear Emulsion Detectors			
Tomonori Sakamoto	NE-O2-77		
	• • • • •		32
Development of Large-Grain Nuclear Emulsions Focusing on the Shape of Silver Bromide Crystals			
Seiga Kubota	NE-O3-79		
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Performance Study and Scale-Up Test of Nuclear Emulsion Detectors for Cosmic-Ray Imaging of Levees			
Nobuko Kitagawa	NE-O4-80		
	• • • • •		34
Development of Nuclear Emulsion Using Fish Gelatin for Suppression of Latent Image Fading			
Atsuki Yoshihara	NE-O5-81		

* * * *Lunch* * * *

Session 17, NE-2	13:20-14:40	Chair Kodaira	.
Internal Investigation of Temple 8 at the Copán Maya Site Using Cosmic-Ray Muon Imaging with Nuclear Emulsion			
Masaru Yazaki	NE-O6-82		
	• • • • •		36
Development of an Emulsion Cloud Chamber for Cosmic-Ray Imaging of Volcanoes			
Rinka Tsunemitsu	NE-O7-83		
	• • • • •		37

Visualization of Underground Structures by Cosmic-Ray Imaging Using Nuclear Emulsion Detectors

Kunihiro Morishima NE-O8-98
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Fast Neutron Energy Reconstruction in the Nano Imaging Tracker Using Deep Learning
 Murat Boyacioglu NE-O9-45

== = *Coffee Break* == =

Session 18, Poster-3	LD, TPC, NE	(12)
	15:00-16:50	Chair Taniike

Characterization of Gas Density Distributions in Cryogenic Targets via Interferometry
 Ryusei Tanaka LD-P1-66
 51

The Response of CR-39 (HARZLAS (TD-1)) to Alpha Particles for Laser-driven Ion Acceleration Experiments
 Kyohei Kawakami LD-P2-67
 52

Characterization of Protons Accelerated by Coulomb explosion using Particle-in-cell Simulations
 Naoya Nakagawa LD-P3-68
 53

Characterization of Hydrogen Cluster Targets for Laser-driven Proton Acceleration Experiments
 Ryo Ando LD-P4-69
 54

Modelization of chemical damage induced by swift ions in poly(allyl diglycol carbonate) by PHITS code
 Tamon Kusumoto TPC-P1-64
 23

Study of tracks evolution in CR-39 and establishment of a track catalog for neutron and alpha measurements
 Abdel-Mjid Nourreddine TPC-P2-21
 24

Combined Effects of UV Irradiation and Annealing on Etch Pit Formation in PADC
 Shunnosuke Tokuda TPC-P3-34

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Development of Practical Etching Conditions for Surface-Treated PADC in Radiation Education		
Satoshi Kondo	TPC-P4-36	
	• • • • •	26
Hybrid classical and deep learning approaches for PADC track analysis		
Jeppe Brage Christensen	TPC-P5-42	
	• • • • •	27
Correlation Between Ether Damage and Hydroxyl Radical Formation in PADC Detectors		
Hirose Yuki	TPC-P6-48	
	• • • • •	28
Unsaturated Bonds Formed in PADC Detectors Following Gamma-Ray and Ion Irradiation		
Takenari Nozawa	TPC-P7-50	
	• • • • •	29
Effects of Annealing Temperature and Temporal Stability of Annealed PADC for Radiation Education		
Ippei Ishikawa	TPC-P8-61	
	• • • • •	30
Development of Nuclear Emulsion Scanning System Using Parallel Imaging with Multiple Objective Lenses		
Hozuki Kawai	NE-P1-84	
	• • • • •	40

Saturday 29th August 2026

Session 19, IV, CFP&OT	09:00-10:30	Chair Kanasaki	.
Radiation Induced Functional Modifications of Engineering Polymers/ SSNTDs and Their Potential Applications			(40+10 min)
Rajesh Kumar	IV6		
	• • • • •		6
Dose-rate effect on the radiolysis of water and protein biomolecules			
Remi Barillon	OT-O2-100		
	• • • • •		82
Detections of He-3 in Ni-based nanocomposites in zirconia exposed to hydrogen gas at elevated temperatures			
Tomoya Yamauchi	CFP-O1-32		

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Closing Session	10:30-11:00	Chair Kanasaki	.
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Awards for students

Address by the new president