

At-a-Glance Program for the 46th Annual Meeting of the INMMJ

Dec. 2	Multi-Purpose Digital Hall (Online Room 1)	Collaboration Room (Online Room 2)	Media Hall
10:00-10:10	Opening Session Opening Remarks Welcome Remarks	-	-
10:10-10:55	Invited Lecture I Chair: Inoue Current Status and Issues of Safeguards in Japan Speaker: Yuko Nakagiri	-	-
11:00-11:45	Student/Young Session Chair: Lisowski Report on Participation in the US Annual Meeting by Student Received Grant from INMM Presenter: Eguchi, Saga Short Presentation for Poster Presenter: Poster Presenters	-	-
11:45-12:45	Lunch Break		
12:45-13:30	-	-	Young / Student Poster Session I Corporate exhibition
13:30-14:15	-	-	Young / Student Poster Session II Corporate exhibition
14:20-15:20	Session A: Non-Destructive Assay Technique (1) Chair: Nagatani Presenter: Rossi, Tsuchiya, Koizumi	Session B: Nuclear Security Technology Chair: Kimura Presenter: Park, Nakayama, Takahashi	Corporate exhibition
15:25-16:25	Session A: Non-Destructive Assay Technique (2) Chair: Tsuchiya Presenter: Sagara, Katabuchi, Sonoda	Session C: 3S-Related Initiatives Chair: Yamada Presenter: Eguchi, Han, Hashiba	Corporate exhibition
16:30-17:15	Planning Session I Chair: TBD A Series of Developments Regarding the Iranian Nuclear Issue Speaker: Ryo Shimizu	-	Corporate exhibition
17:20-17:50	INMM Japan Chapter Annual Business Meeting / Achievement Award	-	-
18:00-20:00	Opinion Exchange Meeting (Cafeteria)	-	-
Dec. 3	Multi-Purpose Digital Hall (Online Room 1)	Collaboration Room (Online Room 2)	Media Hall
9:30-10:15	Invited Lecture II Chair: Yamaguchi Overview of Nuclear Security Capacity Building in South Korea Speaker: Jae-Jun Han	-	Corporate exhibition
10:20-11:40	Session A: Non-Destructive Assay Technique (3) Chair: Tanabe Presenter: Toh, Shirafuji, Horiuchi, Saga	Session D: Policy Research Chair: Ikegami Presenter: Kobayashi, Takashima, Tazaki	Corporate exhibition
11:40-12:40	Lunch Break		
12:40-14:00	Session E: 3S-Related Technology (1) Chair: Shiba Presenter: Kawashima, Saito, Lisowski, Fatt	Session F: Initiatives For Nuclear Security Chair: H. Nakamura Presenter: Hirata, Hanawa, Kobayashi, Hayashizaki	Corporate exhibition
14:05-15:05	Session E: 3S-Related Technology (2) Chair: Inamura Presenter: Imamura, Kato, Takao	Session G: Initiatives for Safeguards Chair: S. Nakamura Presenter: Hasegawa, Nakayashiki, Sekine, Ambai	Corporate exhibition
15:10-15:55	Planning Session II Chair: Sagara The 4th Interdisciplinary Conference on Nuclear Disarmament at the Alva Myrdal Center for Nuclear Disarmament, Uppsala University, Sweden - Paths to Disarmament in Times of Nuclear Threats - Speaker: Saito	-	Corporate exhibition
16:00-16:30	Closing Session Thesis Award and Young Student Session Presentation Award Closing Remarks	-	-

Program for the 46th Annual Meeting of the INMMJ

Venue: Institute of Science Tokyo, Ookayama Campus, West Building 9, Multi-Purpose Digital Hall

Organized by: Institute of Nuclear Material Management Japan chapter

Co-organized by: Laboratory for Zero-Carbon Energy, Institute of Innovative Research,
Institute of Science Tokyo

Plenary Meeting Host: Taketeru Nagatani, Chair, Annual Meeting Program Committee

Day 1 (December 2, 2025)

Multi-Purpose Digital Hall (Online Room 1)

9:30- **Venue opening**

10:00-10:10 **Opening Session**

10:00 - 10:05

Opening Remarks

Taketeru Nagatani, Chair, Annual Meeting Program Committee

10:05 - 10:10

Welcome Remarks

Naoko Inoue, President, INMM Japan Chapter

10:10-10:55 **Invited Lecture I**

Chair: Naoko Inoue, President, INMM Japan Chapter

Title: Current Status and Issues of Safeguards in Japan

Speaker: Yuko Nakagiri, Director for Safeguards, Division of Safeguards (JSGO)

11:00-11:45 **Student/Young Session**

Chair: Eva Lisowski, President, Student Subcommittee

11:00-11:10

Report on Participation in the US Annual Meeting

by Student Received Grant from INMMJ

Presenter: Aya Eguchi, Toshiki Saga

11:10-11:45

Short Presentation for Poster

Presenter: Poster Presenters

11:45-12:45 **Lunch Break**

Media Hall

12:45 – 13:30 **Young / Student Poster Session I**

Planning and operation: Student Subcommittee

P4651 The Characteristics of Reduced-Moderation Water Reactors in Efficient Resource Utilization and Enhanced Security

- Research Plan -

*Naoyuki Watanabe, Yuto Kusaka, Hiroshi Sagara, Yoshiki Kimura

Institute of Science Tokyo

P4652 Comparative Study on U And Pu Containing Accident Tolerant Fuel for Reduced Moderation Boiling Water Reactor in Terms of Core Lifetime and Safety

*Yuto Kusaka, Hiroshi Sagara, Yoshiki Kimura, Yusuke Mori

Institute of Science Tokyo

P4653 Integrated Dynamic Probabilistic Risk Assessment of Passive Safety Systems in High Temperature Gas-cooled Reactors under Combined Safety

– Security Scenarios – System Description and Scenario Development

*Ihda Husnayani, Hiroshi Sagara, Yoshiki Kimura

Institute of Science Tokyo

- P4654 Enhancement Of Passive Safety Features for ATWS Prevention in Small Sodium Cooled Fast Reactors
*Takato Ishii, Eva Lisowski, Hiroshi Sagara, Masatoshi Kawashima
Institute of Sciences Tokyo
- P4655 Development of a Non-Destructive Assay Model for Molten Salt Reactor Fuel Using Neutron Interrogation Method
*Fibra Rhoma Firmanda, Hiroshi Sagara
Institute of Sciences Tokyo
- P4656 Analysis of Simulated Detector Response from Photonuclear Interrogation Signals Induced from Nuclear Material by Bremsstrahlung Photon Source
*Krittana Kiatkongkaew¹, Hiroshi Sagara¹, Kosuke Tanabe², Tatsuya Katabuchi¹, Kazushi Terada³, Jun-Ichi Hori³, Yoshiyuki Takahashi³
¹Institute of Science Tokyo, ²National Research Institute of Police Science, ³Kyoto University
- P4657 Development of a Detection Technique for Nuclear Fuel Materials Using Photonuclear Reactions
*Risa Kunitomo¹, Tatsuya Katabuchi¹, Hiroshi Sagara¹, Chikako Ishizuka¹, Krittana Kiatkongkaew¹, Kosuke Tanabe²
¹Institute of Science Tokyo, ²National Research Institute of Police Science
- P4658 Evaluation of the Effect of Minor Actinide Nuclides on Neutron Non-Destructive Assay for Plutonium Quantification in MA-Containing Fuel
*Aya Eguchi^{1,2}, Hiroshi Sagara¹, Natsumi Mitsuboshi², Taketeru Nagatani²,
¹Institute of Science Tokyo, ²Japan Atomic Energy Agency

13:30 – 14:15 **Young / Student Poster Session II**

- P4659 Fundamental Research for Estimating the Origin of MOX Fuel for Nuclear Forensics
(1) Research Plan
*Gwan Woo Kim, Yoshiki Kimura, Hiroshi Sagara
Institute of Science Tokyo
- P4660 Domestic Round Robin Exercise on Analysis of Uranium for Nuclear Material Handling Facilities in Japan (2)
*Kenichiro Iwata, Masahiro Ebine, Shota Amagasa, Shogo Nakamura, Kazutaka Matsumoto, Kenichi Mise, Yoshiyasu Kato
Nuclear Material Control center
- P4661 Consequence Analysis in the Case of a Severe Accident in Barakah Nuclear Power Plant - Evaluation of Atmospheric Dispersion of Radioactive Materials and Exposure Doses during Severe Accident Using HYSPLIT-
*Abdulla Bin Tamim, Takaaki Sakai
Tokai University
- P4662 Refining Source Term Estimation with Unsupervised Deep Neural Network
- Research Plan -
*Hanna Yasmine, Hiroshi Sagara, Yoshiki Kimura, Chi Young Han
Institute of Science Tokyo
- P4663 Damage Mechanism of Reinforced Concrete Structures from Hypervelocity Projectile Impacts -Research Plan on the Evaluation of Concrete Composition Effect-
*Takumu Abe, Kiyomasa Watanabe, Yoshiki Kimura, Hiroshi Sagara
Institute of Science Tokyo
- P4664 Damage Mechanism of Reinforced Concrete Structures from Hypervelocity Projectile Impacts and Enhancement of Robustness Physical Protection Systems
*Kiyomasa Watanabe, Hiroshi Sagara, Yoshiki Kimura, Takumu Abe
Institute of Science Tokyo
- P4665 A Proposal for a Text-Based BDBT Simulation Method Using LLMs
*Kazumasa Sugawara, Kazuyuki Demachi
University of Tokyo

Multi-Purpose Digital Hall(Online Room 1)14:20 – 15:20 **Session A: Non-Destructive Assay Technique (1)**

Chair: Taketeru Nagatani

- #4601 Advancements in Neutron Resonance Analysis System Development for Fissile Material Quantification in Safeguards Applications
*Fabiana Rossi¹, Jaehong Lee¹, Yuki Yoshimi¹, Tomooki Shiba¹, Kazushi Terada², Jun-ichi Hori²
¹Japan Atomic Energy Agency, ²Kyoto University
- #4602 Development of a Table-top Neutron Resonance Transmission System Using a ²⁵²Cf Source
*Harufumi Tsuchiya¹, Guembou Shouop Cebastien Joel¹
¹Japan Atomic Energy Agency
- #4603 Analysis of Neutron Resonance Transmission Spectrum Using an Analyzing Code Refit
*Mitsuo Koizumi¹, Jaehong Lee¹, Kota Hironaka¹, Fumiaki Ito¹, Tohn Takahashi¹, Jyunichi Hori², Kazushi Terada²
¹Japan Atomic Energy Agency, ²Kyoto university,
³High Energy Accelerator Research Organization

15:25 – 16:25 **Session A: Non-Destructive Assay Technique (2)**

Chair: Katsuyoshi Tsuchiya

- #4604 Development of a Non-Destructive Assay Technique For Nuclear Material Detection and U Enrichment Measurement by Photonuclear Reaction Induced by Bremsstrahlung X-Ray (1) Grand Plan
*Hiroshi Sagara¹, Kosuke Tanabe², Tatsuya Katabuchi¹, Kazushi Terada³, Yoshiyuki Takahashi³, Jun-Ichi Hori³
¹Institute of Science Tokyo, ²National Research Institute of Police Science,
³Kyoto University
- #4605 Development of a Detection Technique for Nuclear Materials Using the Proton-Lithium Nuclear Reaction as a Photon Source (2)
*Tatsuya Katabuchi¹, Risa Kunitomo², Hiroshi Sagara¹, Chikako Ishizuka¹, Krittanai Kiatkongkaew¹, Kosuke Tanabe²
¹Institute of Science Tokyo, ²National Research Institute of Police Science,
- #4606 Application of Electron Tracking Compton Camera to Nuclear Material Monitoring
*Shinya Sonoda¹, Atsushi Takada¹, Tohru Tanimori¹, Shotaro Komura¹, Tetsuya Mizumoto¹, Ken-ichi Tsuchiya², Shun Sugaya², Kosuke Tanabe², Norimitsu Akiba², Hidetoshi Kakuda², Daiki Satoh³
¹Kyoto University ²National Research Institute of Police Science,
³Japan Atomic Energy Agency

Collaboration Room (Online Room 2)14:20 – 15:20 **Session B: Nuclear Security Technology**

Chair: Yoshiki Kimura

- #4607 Inverse Estimation of Co-60 Release from RDD in a Metropolitan City - Using Ensemble Kalman Inversion and Lagrangian Dispersion Model-
*Juryong Park¹, Siho Jang¹, Hiroshi Sagara², Eung Soo Kim¹
¹Seoul National University, ²Institute of Science Tokyo
- #4608 LHADDAS Analysis on the Area of Influence of Urban Buildings on Air Dose Rate Distribution Patterns Against Radiation Terrorism in Urban Central Districts
*Hiromasa Nakayama¹, Ken-ichi Tsuchiya², Daiki Satoh¹, Kosuke Tanabe²
¹Japan Atomic Energy Agency, ²National Research Institute of Police Science
- #4609 Real-Time Radiation Mapping System Using Portable Devices for Enhanced Nuclear Security at Major Public Events
*Tohn Takahashi, Mitsuo Koizumi, Yuki Yoshimi, Takanori Mochimaru
Japan Atomic Energy Agency

15:25 – 16:25 **Session C: 3S-Related Initiatives**

Chair: Hiroyuki Yamada

- #4610 Importance and Our Initiatives of 3S (Safety, Security, Safeguards) Cooperation Coordination at Rokkasho Reprocessing Plant
*Masaaki Eguchi, Yukiyasu Tokai, Satoshi Hayami, Syun Aiuchi, Hiroshi Nakayashiki, Kazunori Kumagai
Japan Nuclear Fuel Limited
- #4611 The Program of NRA Human Resource Development “Advanced Nuclear 3S Education and Training in Cyber-Physical Space (ANSET-CP)” (4) FY2025 Implementation Status
*Chi Young Han, Hiroshi Sagara, Yoshihisa Matsumoto, Noriyosu Hayashizaki, Takehiko Tsukahara, Katsumi Yoshida, Masako Ikegami, Tatsuya Katabuchi, Hiroshige Kikura, Koichiro Takao, Hiroki Takasu, Satoshi Matsuura
Institute of Science Tokyo
- #4612 Evaluation of the Effects of Chlorides Adhered to Surface of Nuclear Fuel Packaging on Localized Corrosion of Stainless Steel
* Hiroya Hashiba¹, Keiichi Kikuchi¹, Wataru Yuasa¹, Takayuki Onizawa²
¹Japan Atomic Energy Agency, ²Atom Transport Service Co., LTD.

Multi-Purpose Digital Hall (Online Room 1)

16:30 - 17:15 **Planning Session I**

Chair: Tomonori Iwamoto

Title: A Series of Developments Regarding the Iranian Nuclear Issue

Speaker: Ryo Shimizu, Japan Atomic Energy Agency

17:20 - 17:50 **INMM Japan Chapter Annual Business Meeting**

(Non-members can also participate as observers)

Cafeteria (Tsubame Terrace Cafeteria)

18:00 - 20:00 **Social Hour / Achievement Award**

Day 2 (December 3, 2025)

Multi-Purpose Digital Hall (Online Room 1)

9:00- Venue opening

9:30-10:15 **Invited Lecture II**

Chair: Tomoki Yamaguchi

Title: Overview of Nuclear Security Capacity Building in South Korea

Speaker: Jae-Jun Han, Director for International Nuclear Nonproliferation and Security
Academy / Korea Institute of Nuclear Nonproliferation and Control

10:20 – 11:40 **Session A: Non-Destructive Assay Technique (3)**

Chair: Kosuke Tanabe

- #4613 Developments of Non-Destructive Measurement Techniques for the Detection of Concealed Nuclear Fuel Materials
*Yosuke Toh, Makoto Maeda, Masao Komeda
Japan Atomic Energy Agency
- #4614 The Development of Non-Destructive Assay Technology for the Quantification of Nuclear Material in High Active Solid Waste
- Overview of the Collaborative Research Using Neutron Measurement Techniques by the Japan Atomic Energy Agency and the U.S. Department of Energy -
*Masaya Shirafuji¹, Kyohei Sano¹, Masakazu Horiuchi¹, Akane Kato¹, Kazuki Watanabe¹, Masafumi Tanigawa¹, Hajime Maruyama¹, Takahiko Kitao¹, James Conner², Adrienne Lafleur², Mara Watson²
¹Japan Atomic Energy Agency, ²Los Alamos National Laboratory
- #4615 The Development of Non-Destructive Assay Technology for the Quantification of Nuclear Material in High Active Solid Waste
- The Simulation Modeling of Gamma-ray Behavior from Waste Materials Using PHITS Code -
*Masakazu Horiuchi, Kyohei Sano, Masaya Shirafuji, Akane Kato, Kazuki Watanabe, Masafumi Tanigawa, Takahiko Kitao, Hajime Maruyama
Japan Atomic Energy Agency
- #4626 Verification of the Applicability of a New Nuclear Material Monitoring System for PWR Fuel Assemblies
*Toshiki Saga, Yoshiyuki Takahashi, Hironobu Unesaki
Kyoto University

Collaboration Room (Online Room 2)

10:20 – 11:40 **Session D: Policy Research**

Chair: Tomonori Iwamoto

- #4616 Can We Overcome the Crisis of the Collapse of the International “Nuclear Order” in 2026?
*Yuki Kobayashi
Sasakawa Peace Foundation
- #4617 Effective Approaches to Halting Nuclear Development: An Analysis of Capability and Intent
*Sota Takashima
Nara University
- #4618 US Logic Regarding Attacks on Nuclear Facilities
- From the Perspective of International Humanitarian law -
*Makiko Tazaki, Takashi Kimura
Japan Atomic Energy Agency
- #4619 Consideration on the Boundary between Peaceful and Military Uses of Nuclear Power
- Thinking from the Perspective of Producing Tritium-
*Yuki Kobayashi
Sasakawa Peace Foundation

11:40 - 12:40 **Lunch Break (Young / Student and Mentors Section Meeting)**

Multi-Purpose Digital Hall (Online Room 1)

12:40 – 14:00 **Session E: 3S-Related Technology (1)**

Chair: Tomooki Shiba

- #4620 Fuel Burnup Behavior and Proliferation Resistance of Uranium and Plutonium in Multi-Recycled HALEU Fuel
(1) Feasibility Study of Multi-Recycled HALEU Fuel in PWR Cores Based on Burnup and Core Safety Characteristics
*Masatoshi Kawashima¹, Masaki Saito¹, Tomonori Iwamoto²
¹Former Tokyo Institute of Technology, ²Japan Nuclear Fuel Limited
- #4621 Fuel Burnup Behavior and Proliferation Resistance of Uranium and Plutonium in Multi-Recycled HALEU Fuel
(2) Enhancing Proliferation Resistance in Multi-Recycled HALEU Fuel Using Reprocessed Uranium
*Masaki Saito¹, Masatoshi Kawashima¹, Tomonori Iwamoto²
¹Former Tokyo Institute of Technology, ²Japan Nuclear Fuel Limited
- #4622 Safety, Security, and Safeguards Implications of using Reprocessed Uranium to Produce HALEU for Sodium-Cooled Fast Reactors
*Eva Lisowski, Hiroshi Sagara
Institute of Science Tokyo
- #4623 Once-through High Burnup Fuel Management Strategy with Dual Neutron Energy Spectrum Core in HTGR (IV) Performance Analysis on Core Safety and Waste Management
*Hong Fatt Chong, Hiroshi Sagara
Institute of Science Tokyo

14:05 – 15:05 **Session E: 3S-Related Technology (2)**

Chair: Tomoaki Inamura

- #4624 Review of Challenges and Countermeasures for Floating Nuclear Power Plants
*Yuri Imamura
Japan Atomic Energy Agency
- #4625 SMR and SeBD: Comparing PP Requirements for Research and Commercial Reactors
*Yuya Kato, Takashi Kimura
Japan Atomic Energy Agency
- #4627 Development of Simple and Versatile Advanced Reprocessing Principle Excluding Pu Isolation and Evaluation of Its Proliferation Resistance
*Koichiro Takao, Ryoma Ono, Hiroshi Sagara
Institute of Science Tokyo

Collaboration Room (Online Room 2)

12:40 – 14:00 **Session F: Initiatives For Nuclear Security**

Chair: Hironobu Nakamura

- #4628 Improvement in Legal Compliance Activities of Nuclear Security in JAEA
*Tomohiro Hirata, Kazutaka Hanawa, Ryodai Shibata, Hiroyuki Yamada, Katsuyuki Yamazaki
Japan Atomic Energy Agency
- #4629 Summary of Nuclear Security Culture Development Activities and Long-term Results of Awareness Surveys in JAEA
*Kazutaka Hanawa, Tomohiro Hirata, Ryodai Shibata, Hiroyuki Yamada, Noriko Miyaji
Japan Atomic Energy Agency
- #4630 Overview of the SOC System and the Operation
*Yu Kobayashi, Akinori Kimura, Kazuhiro Maegawa
Japan Nuclear Fuel Limited
- #4631 Study on Security of Specified Radioisotopes
*Noriyosu Hayashizaki
Institute of Science Tokyo

14:05 – 15:05 **Session G: Initiatives for Safeguards**

Chair: Shingu Nakamura

- #4632 Continuous Improvement of Safeguards Implementation in JAEA
- Safeguards Corrective Action Program (SGCAP) -
*Rie Hasegawa, Teo Nozaki, Hajime Maruyama, Noriko Miyaji
Japan Atomic Energy Agency
- #4634 Development of the 2 hours Advance Notice Mock-CA Exercise
*Megumi Sekine-Abe, Yuki Ishikawa-Ishiwata, Sachiyo Kai, Hidetoshi Sukegawa, Risa Motokawa, Akane Kato, Takashi Obata, Yuiko Motome, Victor Siregar, Tsuyoshi Hayakawa, Kiyohiko Suzuki, Masanori Sukegawa, Tsutomu Nemoto, Koji Ohyama, Yasuhiro Ishikuro, Akihiko Osa, Naoko Noro, Naoko Inoue
Japan Atomic Energy Agency
- #4635 Considerations Regarding Responses to the Interim Inventory Verification (IIV) to Pyroprocessing Facility
*Hiromu Ambai¹, Tadahiro Washiya¹, Sachimasa Yoshida¹, Takanari Ogata^{1,2}, Hideyuki Sugihara¹, Yoshikazu Yamada¹, Yoshiharu Sakamura^{1,2}, Tsuyoshi Murakami^{1,2}
¹Japan Atomic Energy Agency, ²Central Research Institute of Electric Power Industry

Multi-Purpose Digital Hall (Online Room 1)

15:10-15:55 **Planning Session II**

Chair: Hiroshi Sagara

Title: The 4th Interdisciplinary Conference on Nuclear Disarmament at the Alva Myrdal Center for Nuclear Disarmament, Uppsala University, Sweden
- Paths to Disarmament in Times of Nuclear Threats -
Speaker: Masaki Saito, Professor Emeritus of Tokyo Institute of Technology, Former President of the INNMI

16:00-16:30 **Closing Session**

16:00-16:20 **Thesis Award and Young / Student Session Presentation Award**

16:20-16:30 **Closing Remarks**

Tomoaki Inamura, Vice Chair, Annual Meeting Program Committee

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- The program will be changed without notification.
 - If you find any errors, please contact the secretariat. Email: am046-youshi@inmmj.org
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