



- P4656 Analysis of Simulated Detector Response from Photonuclear Interrogation Signals Induced from Nuclear Material by Bremsstrahlung Photon Source  
 \* Krittana Kiatkongkaew<sup>1</sup>, Hiroshi Sagara<sup>1</sup>, Kosuke Tanabe<sup>2</sup>, Tatsuya Katabuchi<sup>1</sup>, Kazushi Terada<sup>3</sup>, Jun-Ichi Hori<sup>3</sup>, Yoshiyuki Takahashi<sup>3</sup>  
<sup>1</sup>Institute of Science Tokyo, <sup>2</sup>National Research Institute of Police Science,  
<sup>3</sup>Kyoto University
- P4657 Development of a Detection Technique for Nuclear Fuel Materials Using Photonuclear Reactions  
 \*Risa Kunitomo<sup>1</sup>, Tatsuya Katabuchi<sup>1</sup>, Hiroshi Sagara<sup>1</sup>, Chikako Ishizuka<sup>1</sup>, Krittana Kiatkongkaew<sup>1</sup>, Kosuke Tanabe<sup>2</sup>  
<sup>1</sup>Institute of Science Tokyo, <sup>2</sup>National 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<sup>1</sup>, Hiroshi Sagara<sup>1</sup>, Natsumi Mitsuboshi<sup>2</sup>, Taketeru Nagatani<sup>2</sup>,  
<sup>1</sup>Institute of Science Tokyo, <sup>2</sup>Japan 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, Hiratsuka, Kanagawa, Japan
- 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 Proposal of a Text-Based Simulation Method  
 \*Kazumasa Sugawara, Kazuyuki Demachi  
 University of Tokyo

**Multi-Purpose Digital Hall(Online Room 2)**

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 Rossi<sup>1</sup>, Jaehong Lee<sup>1</sup>, Yuki Yoshimi<sup>1</sup>, Tomooki Shiba<sup>1</sup>,  
 Kazushi Terada<sup>2</sup>, Jun-ichi Hori<sup>2</sup>  
<sup>1</sup>Japan Atomic Energy Agency, <sup>2</sup>Kyoto University
- #4602 Development of a Table-top Neutron Resonance Transmission System Using a <sup>252</sup>Cf Source  
 \*Harufumi Tsuchiya<sup>1</sup>, Guembou Shouop Cebastien Joel<sup>1</sup>  
<sup>1</sup>Japan Atomic Energy Agency

- #4603 Analysis of Neutron Resonance Transmission Spectrum Using an Analyzing Code Refit  
 \*Mitsuo Koizumi<sup>1</sup>, Jaehong Lee<sup>1</sup>, Kota Hironaka<sup>1</sup>, Fumiaki Ito<sup>1</sup>,  
 Tohn Takahashi<sup>1</sup>, Jyunichi Hori<sup>2</sup>, Kazushi Terada<sup>2</sup>  
<sup>1</sup>Japan Atomic Energy Agency, <sup>2</sup>Kyoto university,  
<sup>3</sup>High 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 Sagara<sup>1</sup>, Kosuke Tanabe<sup>2</sup>, Tatsuya Katabuchi<sup>1</sup>, Kazushi Terada<sup>3</sup>, Yoshiyuki Takahashi<sup>3</sup>, Jun-Ichi Hori<sup>3</sup>  
<sup>1</sup>Institute of Science Tokyo, <sup>2</sup>National Research Institute of Police Science,  
<sup>3</sup>Kyoto University
- #4605 Development of a Detection Technique for Nuclear Materials Using the Proton-Lithium Nuclear Reaction as a Photon Source (2)  
 Tatsuya Katabuchi<sup>1</sup>, \*Risa Kunitomo<sup>2</sup>, Hiroshi Sagara<sup>1</sup>, Chikako Ishizuka<sup>1</sup>, Krittana Kiatkongkaew<sup>1</sup>, Kosuke Tanabe<sup>2</sup>  
<sup>1</sup>Institute of Science Tokyo, <sup>2</sup>National Research Institute of Police Science,
- #4606 Application of Electron Tracking Compton Camera to Nuclear Material Monitoring  
 \*Shinya Sonoda<sup>1</sup>, Atsushi Takada<sup>1</sup>, Tohru Tanimori<sup>1</sup>, Shotaro Komura<sup>1</sup>, Tetsuya Mizumoto<sup>1</sup>, Ken-ichi Tsuchiya<sup>2</sup>, Shun Sugaya<sup>2</sup>, Kosuke Tanabe<sup>2</sup>, Norimitsu Akiba<sup>2</sup>, Hidetoshi Kakuda<sup>2</sup>, Daiki Satoh<sup>3</sup>  
<sup>1</sup>Kyoto University <sup>2</sup>National Research Institute of Police Science,  
<sup>3</sup>Japan 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 Park<sup>1</sup>, Siho Jang<sup>2</sup>, Hiroshi Sagara<sup>3</sup>, Eung Soo Kim<sup>1</sup>  
<sup>1</sup>Seoul National University, <sup>2</sup>Korea Arms Control Verification Agency,  
<sup>3</sup>Institute 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 Nakayama<sup>1</sup>, Ken-ichi Tsuchiya<sup>2</sup>, Daiki Satoh<sup>1</sup>, Kosuke Tanabe<sup>2</sup>  
<sup>1</sup>Japan Atomic Energy Agency, <sup>2</sup>National 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 of 3S(Safety, Security, Safeguards) Coordination and Efforts at Rokkasho Reprocessing Plant  
 \*Masaaki Eguchi, Yukiyasu Tokai  
 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, Noriyasu 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 Salts Adhered to Surface of Nuclear Fuel Packaging on Localized Corrosion

\* Hiroya Hashiba<sup>1</sup>, Keiichi Kikuchi<sup>1</sup>, Wataru Yuasa<sup>1</sup>, Takayuki Onizawa<sup>2</sup>

<sup>1</sup>Japan Atomic Energy Agency, <sup>2</sup>Atom Transport Service Co., LTD.

**Multi-Purpose Digital Hall (Online Room 1)**

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

Chair: **TBD**

Title: A Series of Developments Regarding the Iranian Nuclear Issue **(Tentative)**

Speaker: Ryo Shimizu, Japan Atomic Energy Agency

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

(Non-members can also participate as observers)

**Cafeteria**

18:00 - 20:00     **Opinion Exchange Meeting**

**Day 2 (December 3, 2025)**

**Multi-Purpose Digital Hall (Online Room 1)**

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

Chair: **TBD**

Title: Overview of Nuclear Security Capacity Building in South Korea (**Tentative**)

Speaker: **TBD**, Korea Institute of Nuclear Non-Proliferation and Control / International Nuclear Nonproliferation and Security Academy

10:20 – 11:20      **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 Shirafuji<sup>1</sup>, Kyohei Sano<sup>1</sup>, Masakazu Horiuchi<sup>1</sup>, Akane Kato<sup>1</sup>, Kazuki Watanabe<sup>1</sup>, Masafumi Tanigawa<sup>1</sup>, Hajime Maruyama<sup>1</sup>, Takahiko Kitao<sup>1</sup>, James Conner<sup>2</sup>, Adrienne Lafleur<sup>2</sup>, Mara Watson<sup>2</sup>  
<sup>1</sup>Japan Atomic Energy Agency, <sup>2</sup>Los 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

**Collaboration Room (Online Room 2)**

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

Chair: **TBD**

- #4616 Can We Overcome the Crisis of the Collapse of the International “Nuclear Order” in 2026?  
\*Yuki Kobayashi  
Sasakawa Peace Foundation National Security and Japan-U.S. Program
- #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 National Security and Japan-U.S. Program

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 B  
\*Masatoshi Kawashima<sup>1</sup>, Masaki Saito<sup>2</sup>, Tomonori Iwatoto<sup>3</sup>  
<sup>1</sup>Former Tokyo Institute of Technology, <sup>2</sup>Tokyo Institute of Technology,  
<sup>3</sup>Japan 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 Saito<sup>1</sup>, Masatoshi Kawashima<sup>2</sup>, Tomonori Iwatoto<sup>3</sup>  
<sup>1</sup>Tokyo Institute of Technology, <sup>2</sup>Former Tokyo Institute of Technology,  
<sup>3</sup>Japan 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  
\*Chong Hong Fatt, 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 (FNPPs)  
\*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
- #4626 Verification of the Applicability of a New Nuclear Material Monitoring System For PWR Fuel Assemblies  
\*Toshiki Saga, Yoshiyuki Takahashi, Hironobu Unesaki  
Kyoto University
- #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 Technology**

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 – 15:25 **Session G: Initiatives For Safeguards**

Chair: Shingu Nakamura

- #4632 Continuous Improvement of Safeguards Implementation in JAEA  
- Safeguards Corrective Action Program (SGCAP) -  
\*Rie Hasegawa, Nozaki Teo, Hajime Maruyama, Noriko Miyaji  
Japan Atomic Energy Agency
- #4633 Improvement for Nuclear Material Accounting Method at Rokkasho Reprocessing Plant  
\*Hiroshi Nakayashiki, Yukiyasu Tokai  
Japan Nuclear Fuel Limited
- #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 Ambai<sup>1</sup>, Tadahiro Washiya<sup>1</sup>, Sachimasa Yoshida<sup>1</sup>, Takanari Ogata<sup>1,2</sup>, Hideyuki Sugihara<sup>1</sup>, Yoshikazu Yamada<sup>1</sup>, Yoshiharu Sakamura<sup>1,2</sup>, Tsuyoshi Murakami<sup>1,2</sup>  
<sup>1</sup>Japan Atomic Energy Agency, <sup>2</sup>CRIEPI

**Multi-Purpose Digital Hall (Online room 1)**

15:30-16:15 **Planning Session II**

Chair: Hiroshi Sagara

Title: The 4th Interdisciplinary Conference on Nuclear Disarmament at the Alva Myrdal Centre for Nuclear Disarmament, Uppsala University, Sweden

- Paths to Disarmament in an Age of Nuclear Threats – (Tentative)

Speaker: Masaki Saito, Former President of the Japan Chapter for Nuclear Material Management

16:20-16:50 **Closing Session**

16:20-16:40 **Thesis Award and Young / Student Session Presentation Award**

16:40-16:50 **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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