

Technical Program

Keynote Lecture 1

[October 23 (Tue.), 13:45-14:30, Room 1 – SAKURA –]

Chair: H. Hashizume (Tohoku University, Japan)

K-1 **The Significance of the U.S. NRC Principles of Good Regulation**

Gail H. Marcus, Nuclear Power Technology and Policy, USA

Session 1 Safety Enhancement after Fukushima, Invited Lecture 1

[October 23 (Tue.), 14:50-16:50 Room 1 – SAKURA –]

Chairs: D.M. Chapin (MPR, USA), N. Yusa (Tohoku University, Japan)

I-1 (14:50-15:20)

Current Status and Challenges at Fukushima Daiichi Decontamination and Decommissioning

Masato Hirano, TEPCO, Japan

1-1 (15:20-15:38)

Initiatives for Responding to Severe Accident at Tomari Nuclear Power Station

Yasutaka Ito, Hokkaido Electric Power Company, Japan

1-2 (15:38-15:56)

Volcanic Impact Assessment on the Onagawa Nuclear Power Station

Yuji Torigoe, Tohoku Electric Power Co., Japan

1-3 (15:56-16:14)

Safety analyses for beyond design basis accidents in a ABWR Power Plant

Masayuki Hiraide, Tokyo Electric Power Company Holdings, Inc., Japan

1-4 (16:14-16:32)

Continuous Improvements of Severe Accident Countermeasures at Onagawa Nuclear Power Station

Naoya Iinuma, Tohoku Electric Power Co., Inc., Japan

1-5 (16:32-16:50)

Development of High Efficiency Filtered Containment Venting System and a High Efficiency Multi-Nuclide Aerosol Filters for Radiation Protection during a Process of Cutting Core Debris for Fukushima Daiichi NPP

Tadashi Narabayashi, Tokyo Institute of Technology, Japan

Session 2 PYRAMID, Invited Lecture 2

[October 23 (Tue.), 14:50-16:50 Room 2 – MATSUSHIMA –]

Chairs: G. Sebald (INSA-Lyon, France), Y. Ichikawa (Tohoku University, Japan)

I-2 (14:50-15:20)

Piping System, Risk Management Based on Wall Thinning Monitoring and Prediction – PYRAMID

Toshiyuki Takagi, Tohoku University, Japan

2-1 (15:20-15:38)

Evaluation of Mass Transfer Coefficient for Prediction of Pipe Wall Thinning Rate in Solid-Liquid Multiphase Flow

Ryota Nakagawa, Tohoku University, Japan

- 2-2 (15:38-15:56)
Advanced Simulation Tools for Nondestructive Assessment of Corrosion Affecting Steel Pipes
 Christophe Reboud, CEA, France
- 2-3 (15:56-16:14)
Corrosion Induced Roughness Characterization by Ultrasonic Attenuation Measurement
 Hiroyuki Nakamoto, Kobe University, Japan
- 2-4 (16:14-16:32)
Piping System, Risk Management Based on Wall Thinning Monitoring and Prediction - Numerical Evaluation of Flow Structure of Liquid-Solid Two Phase Flow-
 Shun Watanabe, Central Research Institute of Electric Power Industry, Japan
- 2-5 (16:32-16:50)
Bayesian Evaluation of Damage Risk from Monitoring Data
 Atsushi Iwasaki, Gunma University, Japan

Session 3 Advanced Maintenance Technology, Invited Lecture 3

[October 23 (Tue.), 14:50-16:50 Room 3 – ZAO –]

Chairs: S. Udpa (Michigan State University, USA), S. Takaya (JAEA, Japan)

- I-3 (14:50-15:20)
Multiscale and Multiphysics Modeling and Simulations for Accident Tolerant Fuels with Improved Reactor Safety
 Wenzhong Zhou, City University of Hong Kong, China
- 3-1 (15:20-15:38)
Laser Based Maintenance Technologies and a Heat Storage Power Station
 Akihiko Nishimura, Japan Atomic Energy Agency, Japan
- 3-2 (15:38-15:56)
Higher Harmonics Diagnostic Technology for Electric Devices
 Hidekazu Yoshikawa, Symbio Community Forum, Japan
- 3-3 (15:56-16:14)
A Mathematical Programming Model for Maintenance Scheduling Problem in Nuclear Power Plant
 Mari Ito, Tokyo University of Science, Japan
- 3-4 (16:14-16:32)
Self-evaluating Algorithms for Automated Analysis of Steam Generator Tube Inspection Signals
 Portia Banerjee, Michigan State University, USA
- 3-5 (16:32-16:50)
A New Stress Measurement for Coarse Grain Materials Using Hard Synchrotron Radiations
 Kenji Suzuki, Niigata University, Japan

Keynote Lecture 2

[October 24 (Wed.), 9:00-9:45, Room 1 – SAKURA –]

Chair: T. Narabayashi (Tokyo Institute of Technology, Japan)

- K-2 **Fundamentals for Continuous Improvement of Safety in Nuclear Power Plants**
 Naoto Sekimura, The University of Tokyo, Japan

Session 4 Inspection (ECT), Invited Lecture 4

[October 24 (Wed.), 10:00-11:42, Room 1 – SAKURA –]

Chairs: P. Wilcox (University of Bristol, UK), T. Yamamoto (JAPEIC, Japan)

I-4 (10:00-10:30)

Do We Need a Renaissance of EMAT-technology in Nuclear Applications?

Gerd Dobmann, Saar-University, Germany

4-1 (10:30-10:48)

Application of J-A model in FEM-BEM Hybrid Method for Simulation of Nonlinear Magnetic Flux Leakage Signals

Manru He, Xi'an Jiaotong University, China

4-2 (10:48-11:06)

Eddy Current Testing System for Heat Affected Zone of In-Core Monitor Housing Inner Surface

Noriyasu Kobayashi, Toshiba Energy Systems & Solutions Corporation, Japan

4-3 (11:06-11:24)

Quantitative Eddy Current Testing for Defects in Carbon Fiber Reinforced Polymer Laminates

Yali Du, Xi'an Jiaotong University, China

4-4 (11:24-11:42)

Characterization of Stress-corrosion Crack Cross-section Using Distribution of Magnetic Flux Density Induced by Uniform Eddy Current

Cherdpong Jomdecha, Xi'an Jiaotong University, China

Session 5 Decommissioning for Accident-Damaged Nuclear Plant, Invited Lecture 5

[October 24 (Wed.), 10:00-12:00, Room 2 – MATSUSHIMA –]

Chairs: G.H. Marcus (Nuclear Power Technology and Policy, USA), T. Arai (Central Research Institute of Electric Power Industry, Japan)

I-5 (10:00-10:30)

Current Status, Activities and Plans for Fukushima Daiichi Decommissioning and Decontamination Program Project

Douglas M. Chapin, MPR, USA

5-1 (10:30-10:48)

Research on Hydrogen Safety Technology Utilizing the Automotive Catalyst

Hitomi Ono, Kwansei Gakuin University, Japan

5-2 (10:48-11:06)

Current Status and Future Tasks of Inside the PCV Investigation for Fuel Debris Retrieval

Kiyoshi Haruna, Tokyo Electric Power Company Holdings, Inc., Japan

5-3 (11:06-11:24)

A New Concept to Retrieve the Fuel Debris in The Fukushima Dai-ichi NPP

Shunichi Suzuki, The University of Tokyo, Japan

5-4 (11:24-11:42)

Visualization of Radioactive Substances on a 3D Building Model of the Fukushima Daiichi Nuclear Power Station

Yuki Sato, Japan Atomic Energy Agency, Japan

5-5 (11:42-12:00)

3D Environment Reconstruction Based on Images Obtained by Reconnaissance Task in Fukushima Daiichi Nuclear Power Station

Toshihide Hanari, Japan Atomic Energy Agency, Japan

Session 6 Irradiation Effect, Invited Talk 6

[October 24 (Wed.), 10:00-12:00, Room 3 – ZAO –]

Chairs: T-K. Yeh (National Tsing Hua University, Taiwan), K. Suzuki (Niigata University, Japan)

- I-6 (10:00-10:30)
Evaluation of the Thermal Aging of 316L Stainless Steel Welds
Changheui Jang, KAIST, Korea
- 6-1 (10:30-10:48)
Effect of Si Addition on Mechanical Property and Microstructural Change in Ion-irradiated SUS Steel
Takeshi Doi, University of Fukui, Japan
- 6-2 (10:48-11:06)
Identification of Ni-Si Precipitates in Irradiated Stainless Steels for better Hardening Prediction
Dongyue Chen, The University of Tokyo, Japan
- 6-3 (11:06-11:24)
Irradiation Hardening Measurement from The Dynamic Motion of Dislocation Pinning/Depinning in Ion-irradiated SUS304 Steel
Ken-Ichi Fukumoto, University of Fukui, Japan
- 6-4 (11:24-11:42)
Modeling of Solute Distribution in the Clusters of Reactor Pressure Vessel Model Alloy
Liuming Wan, Tsinghua University, China
- 6-5 (11:42-12:00)
Overview and Current State of Research Project for Irradiation-induced Concrete Degradation
Junji Eto, Mitsubishi Research Institute, Inc., Japan

Session 7 Inspection (Magnetic Method)

[October 24 (Wed.), 13:00-14:12, Room 1 – SAKURA –]

Chairs: P. Guy (INSA-Lyon, France), H. Abe (Tohoku University, Japan)

- 7-1 (13:00-13:18)
Reliability Analysis of Low Frequency Electromagnetic Method for Monitoring Local Wall Thinning in Ferromagnetic Pipes
Haicheng Song, Tohoku University, Japan
- 7-2 (13:18-13:36)
Modeling and Experimental Magnetic Barkhausen Noise Non-destructive Evaluation of 12 Cr-Mo-W-V Steel Creep Test Samples
Bhaawan Gupta, Universite de Lyon, France
- 7-3 (13:36-13:54)
Phenomenologic Model for Incremental Permeability Micro-magnetic Non-destructive Testing Technique
Benjamin Ducharne, INSA-Lyon, France
- 7-4 (13:54-14:12)
Magneto-mechanical Coupling Constitutive Relation and Quantitative Theory for Metal Magnetic Memory Testing Methods
Peng Peng Shi, Xi'an Jiaotong University, China

Session 8 Decommissioning for Normal Nuclear Plant

[October 24 (Wed.), 13:00-14:12, Room 2 – MATSUSHIMA –]

Chairs: R. Voskoboynikov (National Research Centre Kurchatov Institute, Russia), S. Okido (Hitachi-GE Nuclear Energy, Ltd., Japan)

8-1 (13:00-13:18)

Study on Water-Jet Guided Laser Cutting for Decommissioning

Itaru Chida, Toshiba Energy Systems & Solutions Corporation, Japan

8-2 (13:18-13:36)

Effective Utilization of Radiation Resistant RFID Tag in the Decommissioning Work Management

Kunio Ito, Japan NUS Co., Ltd., Japan

8-3 (13:36-13:54)

Development of Practical Realization for Laser-Gouging Decontamination Method

Masaru Watanabe, Mitsubishi Heavy Industries, Ltd., Japan

8-4 (13:54-14:12)

Decommissioning Planning and Actions for Unit 1 and 2 at Mihama Nuclear Power Plant

Koichi Kamahori, The Kansai Electric Power Co., Inc., Japan

Session 9 Radiation Embrittlement of RPV

[October 24 (Wed.), 13:00-14:30, Room 3 – ZAO –]

Chairs: C. Jang (KAIST, Korea), K. Fukumoto (University of Fukui, Japan)

9-1 (13:00-13:18)

Microstructural Characterization of U.S. PWR Surveillance Materials

Tomohiro Kobayashi, Central Research Institute of Electric Power Industry, Japan

9-2 (13:18-13:36)

Application of Charpy Specimen Reconstituted by Electron Beam Welding for the Evaluation of Irradiation Embrittlement of Reactor Pressure Vessel

Seiji Sakuraya, Nippon Nuclear Fuel Development, Japan

9-3 (13:36-13:54)

3D-CFD and FEM Based Deterministic PTS Analysis for Optimizing RPV Maintenance Strategy

Xiaoyong Ruan, Kyoto University, Japan

9-4 (13:54-14:12)

Risk-based Maintenance of Reactor Pressure Vessel

Toshiki Nakasuji, Kyoto University, Japan

9-5 (14:12-14:30)

Verification of Safety Margin of Reactor Pressure Vessel Exposed to Various Thermal Transients based on Probabilistic Approach

Masahide Suzuki, Nagaoka University of Technology, Japan

Panel Discussion

[October 24 (Wed.), 15:00-17:30 Room 1 – SAKURA –]

Part I Special Talk [15:00-15:55]

Chairs: N. Sekimura (The University of Tokyo, Japan)

S-1 Challenges to Introduce Risk-informed, Performance-based Nuclear Oversight Program in Japan

Shuichi Kaneko, Nuclear Regulation Authority, Japan

S-2 To Ensure that the New Japanese Reactor Oversight Process Will Increase Nuclear Safety as Does the U.S. ROP

Hiroko Kondo, Matrix K LLC, The University of Tokyo, Japan

S-3 Features of ROP and Expected Changes in Licensee's Activities

Yutaka Shikami, Kansai Electric Power Co. Inc., Japan

Part II Panel Discussion [16:00-17:30]

Prof. Naoto SEKIMURA (The University of Tokyo, Japan) (Chair)

Dr. Gail H. MARCUS (Nuclear Power Technology and Policy, USA)

Ms. Hiroko KONDO (Matrix K, The University of Tokyo, Japan)

Dr. Douglas M. CHAPIN (MPR, USA)

Prof. Gerd DOBMANN (Saar-University, Germany)

Prof. Zhencao LI (Tsinghua University, China)

Prof. Tsung-Kuang YEH (National Tsing Hua University, Taiwan)

Mr. Shuichi KANEKO (NRA, Japan)

Mr. Yutaka SHIKAMI (KEPCO, Japan)

Keynote Lecture 3

[October 25 (Thur.), 9:00-9:45, Room 1 – SAKURA –]

Chair: Y. Watanabe (Tohoku University, Japan)

K-3 Degradation and Safety Issues of Nuclear Power Systems

Zhengcao Li, Tsinghua University, China

Keynote Lecture 4

[October 25 (Thur.), 9:45-10:30, Room 1 – SAKURA –]

Chair: T. Takagi (Tohoku University, Japan)

K-4 Industry 4.0 Requires NDE 4.0 - Advanced Technology Will Change the Way How NDE and SHM is Applied for Engineering and Maintenance-

Norbert Meyendorf, Fraunhofer IKTS, Germany

Session 10 Inspection (AE/Microwave)

[October 25 (Thur.), 10:50-12:20, Room 1 – SAKURA –]

Chairs: E. Demaldent (CEA, France), H. Adachi (Toshiba Energy Systems & Solutions Co., Japan)

10-1 (10:50-11:08)

Hammering Inspection Using AE Sensor for Embedded Hardware

Susumu Miura, Japan Nuclear Fuel Limited, Japan

10-2 (11:08-11:26)

Study on Structural Monitoring Aimed at Detecting the Soundness of Nuclear Facilities After A Huge Disaster

Masuo Kado, JGC Corporation, Japan

10-3 (11:26-11:44)

Experimental Evaluation of Effects of a Bend on Microwave NDT

Guanren Chen, Tohoku University, Japan

10-4 (11:44-12:02)

Social Infrastructural Diagnosis by Hammering Inspection with AE Sensor

Takashi Matsunaga, Nuclear Fuel Industries Ltd., Japan

10-5 (12:02-12:20)

Pipe Inspection Using Directional TE Modes Excited from the Tube Wall

Takuya Katagiri, Tohoku University, Japan

Session 11 Repair/Replacement

[October 25 (Thur.), 10:50-11:44, Room 2 – MATSUSHIMA –]

Chairs: M-W. Lin (National Tsing Hua University, Taiwan), M. Mochizuki (Osaka University, Japan)

11-1 (10:50-11:08)

Application of Ice Plug Technology to Nitric Acid Pipe Systems

Daiki Osanai, J-tech Co., Ltd., Japan

11-2 (11:08-11:26)

Renewal Work of the Process Computer in the Higashidori Nuclear Power Station

Kouta Watanabe, Tohoku Electric Power Co., Inc., Japan

11-3 (11:26-11:44)

The Safety Handling Technic of the Sea Water that intruded Reactor Buildings in Fukushima-Daini NPP at the Tsunami Disaster 2011

Masao Uesaka, Tokyo Electric Power Company, Inc., Japan

Session 12 SCC/FAC/Thermal Aging

[October 25 (Thur.), 10:50-12:20, Room 3 – ZAO –]

Chairs: W. Zhou (City University of Hong Kong, China), K. Kumagai (Tokyo Electric Power Co. Holdings Inc., Japan)

12-1 (10:50-11:08)

Cracking in Access Hole Cover Weld, Shimane Unit 2

Hideki Watanabe, The Chugoku Electric Power Company, Japan

12-2 (11:08-11:26)

The effect of Dissolved Hydrogen and Loading Stress on PWSCC Initiation of Alloy 600

Takaaki Kobayashi, Mitsubishi Heavy Industries, LTD., Japan

12-3 (11:26-11:44)

Effect of Thermal Aging on Fracture Property of Type 316L Stainless Steel Welds

Yasufumi Miura, Central Research Institute of Electric Power Industry, Japan

12-4 (11:44-12:02)

Study for Influence of Frequency Characteristic of Turbulent Velocity Fluctuation upon Flow-accelerated Corrosion

Tatsuru Kaneko, Tohoku University, Japan

12-5 (12:02-12:20)

Mechanistic Study of Flow-accelerated Corrosion Suppression by Trace Chromium in Carbon Steels

Kazuki Kushida, Tohoku University, Japan

Session 13 Inspection (UT), Invited Lecture 7

[October 25 (Thur.), 13:30-15:30, Room 1 – SAKURA –]

Chairs: N. Meyendorf (Fraunhofer IKTS, Germany), H. Matsuzawa (Mitsubishi Heavy Industries, Ltd., Japan)

I-7 (13:30-14:00)

Ultrasonic Sensors and Arrays for Advanced Monitoring and Inspection

Paul Wilcox, University of Bristol, UK

13-1 (14:00-14:18)

Applicability of Ultrasonic-wave Based Method for Integrity Assessment of Concrete Severely Damaged by Heat

Vu Nhut Luu, Nagaoka University of Technology, Japan

13-2 (14:18-14:36)

Phased Array UT System for Complicated Surface Shape Components of Cast Austenitic Stainless Steel

Setsu Yamamoto, Toshiba Energy Systems & Solutions Corporation, Japan

13-3 (14:36-14:54)

Evaluation of Deformation of Internal Pressure Creep Test Specimen of ASME P91 by Electromagnetic Acoustic Resonance Method

Yuichi Hirose, Tohoku University, Japan

13-4 (14:54-15:12)

Potential of an Examination Personnel in the Ultrasonic Examination of Piping Welds Based on Signal Detection Theory

Hajime Shohji, Tokyo Institute of Technology, Japan

13-5 (15:12-15:30)

Thickness Measurement of Uneven Specimen Using Frequency Domain Signal of Pulse Echo by Electromagnetic Acoustic Transducer

Hongjun Sun, Tohoku University, Japan

Session 14 Condition Monitoring, Invited Lecture 8

[October 25 (Thur.), 13:30-15:12, Room 2 – MATSUSHIMA –]

Chairs: G. Dobmann (Saar-University, Germany), F. Kojima (Tohoku University, Japan)

I-8 (13:30-14:00)

Current R&D Activities on Decommissioning of Fukushima Daiichi NPS

Keiji Chatani, JAEA, Japan

14-1 (14:00-14:18)

The Effects of Long-Term Shutdown Period on Ageing Degradation of Major Components/Structures of Nuclear Power Plants

Masanobu Iwasaki, The Kansai Electric Power Co., Inc., Japan

14-2 (14:18-14:36)

Advanced Nondestructive Inspection Using System Invariant Analysis Technology (SIAT) - (1) Application of SIAT to Signal Processing of ECT Data

Tomoya Soma, NEC Solution Innovators Tohoku Branch, Japan

14-3 (14:36-14:54)

Advanced Nondestructive Inspection Using System Invariant Analysis Technology (SIAT) - (2) Feasibility Study of Extraction of Crack Indication from ECT Data by SIAT

Shichao Cai, Tohoku University, Japan

14-4 (14:54-15:12)

Development of a Pipe-wall Thinning Inspection Method Based on a Wireless UT Sensor

Akinori Tamura, Hitachi Ltd., Japan

Session 15 Material Issues, Invited Lecture 9

[October 25 (Thur.), 13:30-15:48, Room 3 – ZAO –]

Chairs: Z. Li (Tsinghua University, China), Y. Okita (The University of Tokyo, Japan)

I-9 (13:30-14:00)

Effect of Dissolved Hydrogen Concentration on the Water Chemistry in the Primary Coolant Circuit of a Pressurized Water Reactor

Tsung-Kuang Yeh, National Tsing Hua University, Taiwan

15-1 (14:00-14:18)

Quantitative Evaluation of Void Hardening due to Molecular Dynamics Simulation in BCC Materials

Keisuke Taniguchi, University of Fukui, Japan

15-2 (14:18-14:36)

Inter-diffusion of Nitrogen and Helium in HTR-PM Nuclear Graphite

Yumeng Zhao, Tsinghua University, China

15-3 (14:36-14:54)

Degradation of Nuclear Grade Graphite used in HTR-PM by Oxidation at Low Temperatures

Mingyang Li, Tsinghua University, China

15-4 (14:54-15:12)

Hydrogenation Behavior of Hafnium Under Corrosion Compared with Zirconium Alloys

Kenta Murakami, Nagaoka University of Technology, Japan

15-5 (15:12-15:30)

Magnetic Hysteretic Characterization of Plastic Deformation in Low Carbon Steel

Xiaodong Zhang, Beijing University of Technology, China

15-6 (15:30-15:48)

Interaction of Collision Cascades with Free Surfaces: an MD Study

Roman Voskoboynikov, National Research Centre Kurchatov Institute, Russia

Session 16 Safety and Reliability

[October 25 (Thur.), 15:45-16:57, Room 1 – SAKURA –]

Chairs: J. Y. Cavaille (INSA-Lyon, France), K. Demachi (The University of Tokyo, Japan)

16-1 (15:45-16:03)

Development of Reliability Assessment Model for Seismic Loading Considering Fatigue Damage

Masayuki Kamaya, Institute of Nuclear Safety System, Inc., Japan

16-2 (16:03-16:21)

Verification Benchmark Analysis of Structural Reliability Evaluation Codes for Fast Reactor Components

Shigeru Takaya, Japan Atomic Energy Agency, Japan

16-3 (16:21-16:39)

Measurements of Deflection and Contact Force Due to Temperature Gradient for a Simplified Fuel Assembly

Kaiqiang Wang, Xi'an Jiaotong University, China

16-4 (16:39-16:57)

Continuous Functional Improvement of Plant Simulators

Makoto Hayashi, Hokuriku Electric Power Company, Japan

Session 17 Maintenance Related Issues

[October 25 (Thur.), 15:45-17:15, Room 2 – MATSUSHIMA –]

Chairs: B. Ducharne (INSA-Lyon, France), K. Dozaki (JAPC, Japan)

17-1 (15:45-16:03)

Rainwater Inflow into Shika Nuclear Power Station Unit 2 Reactor Building

Tatsuya Kawase, Hokuriku Electric Power Company, Japan

17-2 (16:03-16:21)

Operation and Maintenance experience of Sodium Leak Detector in Monju

Daisuke Hamano, Japan Atomic Energy Agency (Monju), Japan

17-3 (16:21-16:39)

Practical Use of Nuclear Power Plant Component Models, Systems That Reproduce Inspectional Environment and Experiences at Nuclear Power Plant and Plant Simulators for Training Regulatory Inspectors

Kazuhiko Kishioka, Nuclear Regulation Authority, Japan

17-4 (16:39-16:57)

Investigation on Leakages from Stainless Steel Piping Welded Joints, Hamaoka NPS Unit 5

Munehito Hattori, Chubu Electric Power Co., Inc., Japan

17-5 (16:57-17:15)

TEPCO's Work Management Initiatives

Hidenori Sato, Tokyo Electric Power Company Holdings, Japan

Poster Session

[October 24 (Wed.) 12:00-13:30, Sakura Hall Lounge]

Chair: A. Tagawa (JAEA, Japan)

P-1 Numerical Investigation on Persistence of Modified Residual Stresses due to Shot Peening

Kazuki Ikushima, Osaka Prefecture University, Japan

P-2 Development of FEM Analysis Method for Prediction of the Long-term Sustainability of Compressive Stress by Shot Peening

Satoru Nishikawa, Iwate University, Japan

P-3 Development of Low Frequency Eddy Current Testing for the Evaluation of Double Walled Tank

Yohei Ono, Tohoku University, Japan

P-4 Evaluation of Applicability of Electromagnetic Acoustic Resonance System for Pipe Wall Thickness Measurement in Nuclear Power Plants

Ryoich Urayama, Tohoku University, Japan

P-5 Material Research on RPV in Decommissioning Hamaoka Unit-1 (Progress Report)

Hideki Yuya, Chubu electric power, Japan

P-6 An accelerated Event Kinetic Monte Carlo approach

Zi Qin Shen, Tsinghua University, China

- P-7 **Modeling and Molecular Dynamics Simulations of Fe-ion Irradiation Damage in Fe-Cu Model Alloy**
Ke Jia, Tsinghua University, China
- P-8 **Pre-existing Plastic Strain Quantification of Austenitic Stainless Steel by Potentiostatic Etching Method: Relation with Plastic Deformation Mechanism in Stacking Fault Energy**
Taiki Nishimura, Tohoku university, Japan
- P-9 **Comparison of the Attitudes of University Students Toward Nuclear Energy Among Three Asian Countries**
Noritaka Yusa, Tohoku University, Japan