

【JKMP Program】

Special Sessions

• Pre-meeting of JKMP: September 19 (Thu.) 16:00–17:00 (Main)

History of Joint scientific meeting between KSMP and JSMP

Chairperson: National Institute of Quantum Science and Technology

Shigekazu Fukuda

Yonsei Cancer Center

Dong Wook Kim

PM-1. Three decades history of the Japan-Korea Joint Meeting on Medical Physics

Association for Nuclear Technology in Medicine

Masahiro Endo

PM-2. Me and Korea-Japan Joint Academic Meeting of Medical Physics

Seoul National University College of Medicine

Wee-Saing Kang

• Joint Symposium 1: September 20 (Fri.) 10:15–11:45 (Main)

Particle Therapy: Future of particle therapy

Chairperson: Osaka University

Teiji Nishio

Yonsei Cancer Center

Jin Sung Kim

JS1-1. Development of carbon-ion facility in Japan

National Institute of Quantum Science and Technology

Yoshiyuki Iwata

JS1-2. Present and Future of Particle Therapy in Korea

National Cancer Center

Se Byeong Lee

JS1-3. Particle Therapy in Taiwan: Current Status and Future Prospects

Chang Gung University

Tsi-Chian Chao

• Joint Lecture 1 (Educational Lecture 1): September 20 (Fri.) 13:15–14:15 (Main)

Future of Monte Carlo simulation

Chairperson: National Institute of Technology, Toyama College

Tsukasa Aso

JEL1-1. Geant4 and Medical Applications

High Energy Accelerator Research Organization

Koichi Murakami

JEL1-2. Applications of PHITS to medical physics

Osaka University / Japan Atomic Energy Agency

Tatsuhiko Sato

JEL1-3. EGS5 Activities and Future Prospects

High Energy Accelerator Research Organization

Hiroshi Iwase

• Joint Symposium 2: September 20 (Fri.) 15:15–16:15 (Main)

Medical Physics as a Vocation: Future role of medical physicist

Chairperson: Aichi Cancer Center

Hidetoshi Shimizu

National Cancer Center

Se Byeong Lee

JS2-1. The role of medical physicists in the future of healthcare in Korea

Yonsei Cancer Center

Dong Wook Kim

JS2-2. Current and future roles and responsibilities of medical physicists in the United States

University of California Los Angeles Sang-June Park

JS2-3. Navigating the Future: The Evolving Role of Medical Physicists in the Age of AI and Advanced Radiotherapy

Hiroshima High-Precision Radiotherapy Cancer Center Shuichi Ozawa

• **Educational Lecture 2 (in Japanese): September 20 (Fri.) 16:30–17:30 (Main)**

Chairperson: Uji-Tokushukai Medical Center Yoshitomo Ishihara

EL2-1. Process for medical device approval (in Japanese)

Osaka University Yutaka Takahashi

• **Presidential Special Session: September 20 (Fri.) 15:15–16:15 (Sub 1)**

Chairperson: Nagoya City University Toshiyuki Toshito

PSS-1. Current Developments and Future Directions of Compact Proton Therapy Systems with Magnetic Gantry

B dot Medical Naoya Saotome

PSS-2. Simulation study for water radiolysis using MPEXS2-DNA, a GPU-based Monte Carlo simulator

High Energy Accelerator Research Organization Shogo Okada

• **KSMP Special Lecture: September 20 (Fri.) 16:30–17:30 (Sub 2)**

Chairperson: Korea Institute of Radiological and Medical Sciences Sang Hyoun Choi

KSL-1. Innovations in Brachytherapy: Advancements, Challenges, and Future Directions

The University of Texas MD Anderson Cancer Center Yusung Kim

• **Joint Symposium 3: September 21 (Sat.) 9:00–10:30 (Main)**

The future of medical physics with AI

Chairperson: Hiroshima University Daisuke Kawahara

The Catholic University of Korea Wonmo Sung

JS3-1. Considerations in constructing radiotherapy-related learning-based predictive models

Yonsei University Hojin Kim

JS3-2. Applications of artificial intelligence in nuclear medicine

Korea Institute of Radiological and Medical Sciences Sang-Keun Woo

JS3-3. Artificial Intelligence in Radiation Therapy

Tohoku University Noriyuki Kadoya

• **Joint Lecture 2: September 21 (Sat.) 10:45–11:45 (Main)**

Theranostics: Role of medical physicist

Chairperson: Hokkaido University Masayori Ishikawa

Seoul National University Hospital Jaeman Son

JL2-1. Initiatives in Targeted Radionuclide Therapy and Dosimetry

Nagoya University

Ryuichi Nishii

JL2-2. The Role of Nuclear Medicine Physicists in Theragnosis

Korea Institute of Radiological and Medical Sciences

Jin Su Kim

• **Joint Lecture 3: September 21 (Sat.) 13:15–14:15 (Main)**

New dosimetry device: Future of 2D and 3D dosimetry

Chairperson: HIPRAC

Shuichi Ozawa

Yonsei Cancer Center

Min Cheol Han

JL3-1. Recent Progress of Dosimetry by Using 3D Printed Plastic Scintillators

Hanyang University

Yong Kyun Kim

JL3-2. Dose Imaging Detector for Hardon-therapy based on Gas Scintillation

National Institute of Advanced Industrial Science and Technology

Takeshi Fujiwara

JL3-3. Three-Dimensional Gel Dosimetry: Meeting Future Challenges in Advances of Radiotherapy

Kitasato University

Yusuke Watanabe

• **JSMP grant research report: September 21 (Sat.) 16:20–16:50 (Main)**

Chairperson: Juntendo University

Keisuke Tsuda

JG-1. Development of performance evaluation methods for medical Compton camera

National Institute of Quantum Science and Technology

Go Akamatsu

Sponsored Seminars

• **Luncheon Seminar 1 (VARIAN): September 20 (Fri.) 12:00–13:00 (Sub 1)**

Relentless innovation. Seamless integration. ~ Eclipse v18 update ~

Chairperson: Osaka University

Yuichi Akino

Varian Medical Systems, Australia

Shaun Graydon

• **Luncheon Seminar 2 (Hitachi High-Tech): September 20 (Fri.) 12:00–13:00 (Sub 2)**

Particle therapy part: Synchrotron-based ultra-high dose rate (uHDR) irradiation

Chairperson: Nagoya City University

Toshiyuki Toshito

Synchrotron-based ultra-high dose rate (uHDR) irradiation

Osaka University

Masashi Yagi

Photon therapy part: Initial experience of a brand-new O-ring system, OXRAY

Chairperson: Kyoto University

Mitsuhiro Nakamura

Initial experience of a brand-new O-ring system, OXRAY

National Cancer Center Hospital East

Ryo Takahashi

National Cancer Center Hospital East

Kazuya Seki

National Cancer Center Hospital East

Hiddenobu Tachibana

• Morning Seminar (B dot Medical): September 21 (Sat.) 8:00–8:50 (Sub 1)

Development of a Self-Propelled Shuttle Treatment Table and Efficient use of Proton Therapy Rooms

B dot Medical Inc.

Efficiency and Technologies Required for High-Precision Radiation Therapy

Chairperson: Nagoya City University

Toshiyuki Toshito

Introduction of MR-guided Online Adaptive Radiotherapy and Future Challenges

National Cancer Center Hospital

Hiroyuki Okamoto

Efficient Treatment Flow in Particle Therapy

Yonsei University College of Medicine

Jin Sung Kim

• Luncheon Seminar 3 (Accuray): September 21 (Sat.) 12:00–13:00 (Sub 1)

How I almost became a medical physicist

Chairperson: Osaka University

Yutaka Takahashi

Accuray, USA

Mu Young Lee

• Luncheon Seminar 4 (Elekta): September 21 (Sat.) 12:00–13:00 (Sub 2)

Clinical and research experience in MR-guided RT

Chairperson: Tohoku University

Noriyuki Kadoya

Gangnam Severance Hospital, Yonsei University

Jihun Kim