【General Sessions】 ★ : English Presentation

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1. Image (Processing/Analysis/Informatics) and Medical Informatics

13:00–14:00　Moderator: Jun'ichi Kotoku

★ **O-001** Investigation of feasibility of an automated approach for retrieval of similar images using PCA in a radiation treatment planning database
Kyushu Univ.　Motoki Sasahara

O-002 Fast image registration on Multi-GPU computers
Teikyo Univ.　Toru Ishibashi

O-003 Readout of high resolution DOI for whole-body 3D-PET detector using wavelength shifting fibers
Chiba Univ.　Hiroshi Ito

O-004 Elimination of metal artifacts in CT images using photon counting semiconductor detector
Hosei Univ.　Futoshi Kaibuki

O-005 Conversion of digital imaging and communication in medicine image into Stereolithography only using free software for finite element method analysis
Nihon Institute of Medical Science　Kazushi Sato

★ **O-006** Retrospective analysis of incident reports at a radiology department
Univ. of the Ryukyus　Yasumasa Kakinohana

2. Photon/Electron Beam Therapy 1 (Dose Evaluation)　14:10–15:10　Moderator: Hiroyuki Okamoto

O-007 Fundamental study for determination of the tolerance of DVH based patient QA metrics for prostate VMAT
Tohoku Univ.　Masahide Saito

★ **O-008** Development and clinical application of DVH analysis program
Seirei Hamamatsu General Hosp.　Yumiko Adachi

O-009 A report of beam data check for multi-institutional trial for independent dose calculation verification for the secondary check
Inagi Municipal Hosp.　Masanobu Itano

O-010 The accuracy in wedge off-axis using independent dose verification
Kitasato Univ. Medical Center　Hiroyuki Shimizu

O-011 Development of a visual feedback system incorporating a patient-specific guiding waveform using a tablet PC
Tohoku Univ.　Yujiro Nakajima

O-012 Quantitative estimation of the effect of radiation therapy by using WAM model
Osaka Univ.　Yuichiro Manabe

3. Photon/Electron Beam Therapy 2 (CT/CBCT for Treatment Planning)

15:20–16:10　Moderator: Akihiro Haga

O-013 Influence of spatial resolution of computed tomography on radiation treatment planning: A feasibility study with pulmonary nodule image simulation
Niigata Univ.　Shogo Shigeta

O-014 Analysis of the effect of the scattering photon for the accuracy of dose calculation using a cone-beam CT
Juntendo Univ.　Keisuke Usui

O-015 Clinical evaluation of a metal artifact redaction reconstruction in computed tomography studies used for radiotherapy treatment planning
Fujita Health Univ. Hosp.　Yasunori Saito

O-016 Evaluation of deformable image registration of pelvic CT image and CBCT image
Tohoku Univ.　Kousei Fujiwara

O-017 Evaluation of the respiratory change in the automatic image registration using 4D-CBCT
Meiwa Cancer Clinic　Hiroyuki Inoue

4. Photon/Electron Beam Therapy 3 (Quality Assurance Techniques)
16:10–17:00　Moderator: Satoshi Kito

O-018 A method of focal spot measurement through Flatting-filter free beam on medical linear accelerator
Fukuoka Tokushukai Hosp.　Shigeo Anai

O-019 Determination of multi leaf collimator positional tolerance using modulation complexity score (MCS) in the volumetric-modulated arc therapy (VMAT) for prostate cancer patients
Tane General Hosp.　Kazuki Kubo

O-020 Mechanical uncertainty of CyberKnife for metastatic brain tumor patient using Log-file analysis
National Cancer Center Hosp.　Hiroyuki Okamoto

O-021 Evaluation of dose attenuation by treatment couch
Univ. of the Ryukyus　Tsunekazu Kuwae

O-022 Research on the relative electron density of a virtual couch
Toho Univ. Sakura Medical Center　Teruo Ito

5. Photon/Electron Beam Therapy 4 (Planning and Delivery Techniques)
17:10–18:00　Moderator: Satoru Sugimoto

O-023 Variable wedge angle with half fields of an unflattened and a conventional flattened X-ray beam
Shizuoka Cancer Center　Tetsuya Tomida

O-024 Comparison of Irradiation Time for Breast Treatments Using Electric Tissue Compensation with or without Flattening Filter
Juntendo Univ.　Peijiang Lu

★ **O-025** Dosimetric Comparison of Field in Field Forward Plan with Bolus Using 20, 25 Fractions and 3DCRT Motorized Wedge without Bolus In Post-Mastectomy Radiotherapy of Breast Cancer
Univ. of Ho Chi Minh, Viet Nam　Dang Quang Huy

O-026 Dosimetric evaluation of effect of the Jaw Tracking using MLC test patterns
Juntendo Univ.　Toru Kawabata

O-027 Effects of contour delineating accuracy on dose calculation with TomoTherapy treatment planning system
Kitasato Univ.　Daiki Mochizuki

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6. Particle Therapy 1
13:00–14:00　Moderator: Yoshikazu Maeda

O-028 Status of Acc-Based BNCT Irradiation System and the Future Prospect
Kyoto Univ. Research Reactor Institute　Tooru Kobayashi

O-029 Neutron-energy dependence of radio activity distribution induced in a concrete wall used for BNCT irradiation facility
Kyoto Univ. Research Reactor Institute　Takushi Takata

O-030 Status report of new carbon-ion radiotherapy facility i-ROCK
Kanagawa Cancer Center　Shinichi Minohara

★ **O-031** A six-year review of more than 11,000 treatment beam results at Southern Tohoku Proton Therapy Center
Southern Tohoku Proton Therapy Center　Takahiro Kato

★：English Presentation

O-032 Development of a beam application technique in atmosphere for multi subjects including proton therapy
The Wakasa Wan Energy Research Center Kyo Kume

O-033 Discussion of highly accurate dose control
The Wakasa Wan Energy Research Center Fuyumi Ito

7. Particle Therapy 2 14:10–15:20 Moderator: Taeko Matsuura

O-034 Patient-specific QA for moving target irradiation with a scanned ion beam
NIRS Yousuke Hara

O-035 Advanced evaluation of patient-specific QA for scanned ion-beam therapy
NIRS Yuichi Saraya

★ **O-036** Range verification system for the carbon beam gantry at NIRS
NIRS Naoya Saotome

★ **O-037** Patient specific QA for proton depth dose distribution using multi-layer ionization chamber in a single-ring wobbling method
Southern Tohoku Proton Therapy Center Takahiro Kato

O-038 Patient-Specific QA of Passive proton beam therapy using Range Modulation Wheel
Nagoya Proton Therapy Center Eiki Nikawa

O-039 Commissioning of Specialized Proton Beam for Early-Stage Breast Cancer Treatment
Medipolis Proton Therapy and Research Center Naoaki Kondo

O-040 Evaluation of the RADPOS 4-D in-vivo dosimetry system for Clinical Application[2]
Univ. of Tsukuba Hidenori Yamaguchi

8. Particle Therapy 3 15:30–16:30 Moderator: Kyo Kume

O-041 The Establishment of Quality Assurance Procedures for Spot-Scanning Proton Beam Irradiation System at Hokkaido University
Hokkaido Univ. Hosp. Yuka Matsuzaki

O-042 Quality assurance of spot scanning proton beam therapy in Hokkaido University Hospital
Hokkaido Univ. Hosp. Yuto Matsuo

O-043 Patient-Specific QA of Spot-Scanning proton therapy
Nagoya Proton Therapy Center Kumiko Asai

★ **O-044** Irradiation method for lung and liver cancer and QA using scanning beam: An attempt in Nagoya Proton Therapy Center
Nagoya Proton Therapy Center Toshiyuki Toshito

★ **O-045** A Performance of Proton Line Scanning at Aizawa Hospital
Sumitomo Heavy Industries, Ltd. Nagaaki Kamiguchi

O-046 Commissioning of the Eclipse Proton™ Treatment Planning System at Aizawa Hospital Proton Therapy Center
Aizawa Hosp. Yuya Sugama

9. Particle Therapy 4 16:40–17:20 Moderator: Shinichi Minohara

★ **O-047** Commissioning of real-time tumor-tracking system installed in Hokkaido University Hospital Proton Center
Hokkaido Univ. Hosp. Naoki Miyamoto

O-048 An image processing system to track implanted markers in real-time for heavy-ion radiotherapy
Toshiba Corporation Yasunori Taguchi

O-049 Commissioning of the On-board Cone-beam CT System Equipped on the Rotating Gantry of a Proton Beam Therapy System
Hokkaido Univ. Hosp. Seishin Takao

★ **O-050** Daily dose evaluation utilizing In-room CT positioning system for prostate cancer in proton therapy
Fukui Prefectural Hosp.　Yoshikazu Maeda

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10. Photon/Electron Beam Therapy 5 (Registration)　9:10–9:50　Moderator: Satoshi Tanabe

★ **O-051** Development of an automated estimation of lung tumor locations for target-based patient positioning in stereotactic body radiotherapy
Kyushu Univ. Beppu Hosp.　Satoshi Yoshidome

O-052 Development of the positioning assist device in radiotherapy
Ibaraki Prefectural Univ. of Health Sciences　Hiraku Fuse

O-053 Analysis of Factors for Target Registration Errors using Radiopaque Markers
Kyoto Univ.　Masanori Takamiya

O-054 Consideration about a location check error using CBCT by the difference between the engineers
Iwate Prefectural Isawa Hosp.　Koji Ishita

11. Photon/Electron Beam Therapy 6 (Photon Dose Calculation)　10:00–10:50　Moderator: Fujio Araki

O-055 Photon Transport Simulation Using The Numerical Analysis Method of Lattice Boltzmann Equation
Tokyo Metropolitan Univ.　Takahito Chiba

★ **O-056** Monte Carlo study of VMAT dose distributions from an Elekta Synergy integrating the Agility 160-leaf multileaf collimator
Kumamoto Univ.　Ryota Onizuka

O-057 The impact of lipiodol on accuracy of dose calculation for stereotactic body radiation therapy
Hiroshima Univ. Hosp.　Kazunari Hioki

O-058 Study of the influence of the backscatter electrons from high Z-dental alloy on radiation dose distribution using Monte Carlo simulation.
Niigata Univ.　Naotaka Kushima

O-059 Dosimetric assessment of a metal artifact redaction reconstruction in computed tomography studies used for radiotherapy treatment planning
Fujita Health Univ. Hosp.　Yuka Kondo

12. Photon/Electron Beam Therapy 7 (Margins in Treatment Planning)　14:40–15:30　Moderator: Mitsuhiro Nakamura

★ **O-060** A calculation framework of anisotropic PTV margins based on a statistical shape analysis of CTV regions for prostate cancer radiotherapy
Kyushu Univ.　Yusuke Shibayama

★ **O-061** Automated delineation framework of GTV regions using a machine learning classifier based on datasets of planning CT and PET/CT images
Kyushu Univ.　Koujirou Ikushima

★ **O-062** Differences in structure volumes and dosimetric parameters between treatment planning system and comprehensive software
Osaka Medical Center for Cancer and Cardiovascular Diseases　Akira Masaoka

O-063 On PTV margin calculation when systematic positioning errors are smaller than random positioning errors
Elekta KK　Kiyoshi Yoda

O-064 A study of leaf margin for PTV peripheral prescription in lung SBRT
Hiroshima City Asa Hosp.　Yasuharu Andou

★：English Presentation

13. Photon/Electron Beam Therapy 8 (Real Time Tracking and Gating)

15:40–16:50 Moderator: Masayori Ishikawa

★ **O-065** Effect of dose distribution by respiratory displacement for VMAT-SRT in lung

Kumamoto Univ. Kazuki Komatsu

★ **O-066** Respiratory phase segmentation algorithm based on 3-dimensional fiducial trajectory for real-time tumor-tracking radiotherapy

Hokkaido Univ. Hosp. Naoki Miyamoto

★ **O-067** Long term stability of tracking accuracy for dynamic tumor tracking with Vero4DRT system

Kyoto Univ. Mami Akimoto

★ **O-068** Development of 4-D QA Suite for the Robotic Radiosurgery System

Miyakojima IGRT clinic Hiroya Shiomi

★ **O-069** Predictive modeling of respiratory motion using dynamic linear models

Teikyo Univ. Jun'ichi Kotoku

★ **O-070** A real-time prediction and phase recognition of moving tumors based on pre-4DCBCT in radiation therapy: A feasibility study

The Univ. of Tokyo Ritu Bhusal Chhatkuli

★ **O-071** Development of database system for inter-fractional organ motion estimated by real-time tumor-tracking radiotherapy system

Hokkaido Univ. Hosp. Ryusuke Suzuki

14 .Photon/Electron Beam Therapy 9 (Motion Analysis) 17:00–17:50 Moderator: Takehiro Shiinoki

O-072 A FEM based Non-Rigid Registration using boundary condition

Teikyo Univ. Shinobu Kumagai

★ **O-073** Evaluation of 3D Tumor Motion and Potential Internal Target Volume of Liver Tumor Using Cine-MRI

Osaka Univ. Yuichi Akino

O-074 A phantom study of four-dimensional treatment planning for lung VMAT-SBRT using several reconstructed images

Osaka Univ. Misaki Hashimoto

O-075 Evaluation of the 4DCT phase image with two different scanning method

Nagoya Univ. Naoki Suzuki

★ **O-076** Improvement of automated monitoring approach of 4D dose distributions during SBRT based on 2D/3D registration with adaptive transformation parameters

Kyushu Univ. Takahiro Nakamoto

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15. Diagnostic Imaging (X-Ray/CT) 1 9:10–10:00 Moderator: Hidetake Hara

O-077 Optimization of the breast abdomen X-ray examination conditions in NICU (Perform image evaluation and medical exposure evaluation)

Saga National Hosp. Yukio Inoue

O-078 Possibility to detection of the metastatic brain tumor using dual-source dual-energy CT

Kitasato Univ. Hidetake Hara

★ **O-079** Development of Energy-resolved Computed Tomography Method for Reducing Adverse Reactions of Iodinated Contrast Media

Kyoto Univ. Hiraku Iramina

O-080 X-ray detection using a silicon X-ray diode and a 5.0-m-length coaxial cable
Iwate Medical Univ. Michiaki Sagae

O-081 Investigation of a dual-energy computed tomography system utilizing a silicon X-ray diode
Iwate Medical Univ. Hosp. Yuichi Sato

16. Diagnostic Imaging (X-Ray/CT) 2 10:00–10:50 Moderator: Masaki Ohkubo

O-082 Investigation of a monochromatic X-ray computed tomography system using a microcomputer and a CdTe detector
Iwate Medical Univ. Yasuyuki Oda

★ **O-083** Development of a spectral X-ray computed tomography system using a CdTe detector
Iwate Medical Univ. Eiichi Sato

★ **O-084** Measurement of X-ray spectra using an LSO-MPPC detector with changes in the MPPC-pixel number
Iwate Medical Univ. Satoshi Yamaguchi

★ **O-085** Measurement of X-ray spectra using a YAP(Ce)-MPPC detector and its application to dual-energy computed tomography
Iwate Medical Univ. Eiichi Sato

★ **O-086** Low-dark-counting high-speed X-ray energy dispersing using an LSO crystal and a small photomultiplier tube and its application to gadolinium imaging
Iwate Medical Univ. Satoshi Yamaguchi

17. Particle Therapy 5 14:40–15:40 Moderator: Shigekazu Fukuda

O-087 Performance evaluation of GSO pixel scintillator array for an electron-tracking Compton camera
Tokai Univ. Saki Hirai

O-088 A basic study of an electron-tracking algorithm for an electron-tracking Compton camera
Tokai Univ. Kohtaro Iijima

O-089 A Study of dose distribution measurement of carbon beam using scintillating glass GEM
NIRS Yusuke Koba

★ **O-090** Development of heavy ion CT using an intensifying screen and an EMCCD camera for human head imaging
Kitasato Univ. Hiroshi Muraishi

★ **O-091** Development of a whole-body OpenPET
NIRS Taiga Yamaya

★ **O-092** First OpenPET imaging of produced ^{15}O ion beams
NIRS Akram Mohammadi

18. Particle Therapy 6 15:50–17:00 Moderator: Toshiyuki Toshito

★ **O-093** Proton dose calculation using a simplified Monte Carlo algorithm considering the effect of large angle scattering
Hitachi, Ltd., Hitachi Research Laboratory Taisuke Takayanagi

★ **O-094** A Monte Carlo investigation of radial dose distribution of electron by proton beam irradiation to gold nanoparticles
Hokkaido Univ. Jihun Kwon

O-095 Development of a short range applicator for real-time-image gated proton beam therapy
Hokkaido Univ. Hosp. Taeko Matsuura

O-096 Withdrawn

O-097 Withdrawn

★：English Presentation

O-098 Withdrawn

O-099 Quantitative study of skin reaction by carbon beam therapy

NIRS Hiroaki Matsubara

19. Brachytherapy 17:10–18:00 Moderator: Shinji Kawamura

O-100 Development of QA tool for evaluation of dwell position of a source in HDR brachytherapy

National Cancer Center Hosp. Hiroyuki Okamoto

※[ ]：Product Exhibition Coretime: 11:00-11:45, 14:00-15:00

O-101 A survey on dose calculation in treatment planning for brachytherapy

Keio Univ. Takashi Hanada

O-102 Investigation of dosimetry method for brachytherapy by EGS5 and regression to reflect source strength shortage

Hiroshima Univ. Kenichi Tanaka

★ **O-103** Dose distribution of ^{125}I-brachytherapy sources using PHITS Monte Carlo code

Kumamoto Univ. Kentarou Tamura

★ **O-104** Inference of Anisotropy function for Ruthenium brachytherapy

The Univ. of Tokyo Masahiko Futaguchi

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20. Nuclear Medicine 1 9:10–10:00 Moderator: Tomoyuki Hasegawa

★ **O-105** Development of layer discrimination method for four-layer DOI detector with laser processed boundaries

Chiba Univ. Akane Gondo

★ **O-106** Development of a singles-based flexible data acquisition system for the OpenPET

NIRS Eiji Yoshida

★ **O-107** Sensitivity Analysis of the Helmet-with-Jaw PET Using Geant4

NIRS Abdella M. Ahmed

★ **O-108** Fast image reconstruction with a Ray-Driven method using a GPGPU

Hosei Univ. Ryo Ito

★ **O-109** Proposed Model of Detector Response Functions using Asymmetric 2D Gaussian Functions and GPU Implementation for the Whole-Body OpenPET

NIRS Hideaki Tashima

21. Nuclear Medicine 2 10:00–10:50 Moderator: Hiroshi Watabe

O-110 A preprocessing filter for SPECT designed to improve high frequency components

Teikyo Univ. Susumu Nakabayashi

★ **O-111** SSIM-based objective image quality metric for nuclear medicine imaging

Osaka Univ. Sachiko Yamada

O-112 Introduction of a traceable Ge-68/Ga-68 point-like source with an acrylic absorber in the novel evaluation and calibration method for PET

Kitasato Univ. Tomoyuki Hasegawa

O-113 Introduction of respiratory gating method on PET/MRI scan

Fukushima Medical Univ. Takamitsu Hara

O-114 Frequency and types of fat-water-shift artifacts on μMaps in hybrid PET/MR system

Fukushima Medical Univ. Daisuke Shimao

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22. Radiation Protection/Health Physics 1 9:10–10:10 Moderator: Takashi Moritake

0-115 Influence on Penetration Situation and Farm Products of the Radiocesium in the Soil in Fukushima
Junshin Gakuen Univ. Shoichi Arai

★ **0-116** Dosimetric comparison between four types of computed tomography units
Kumamoto Univ. Takeshi Ohno

0-117 Development and utilization of Web-based open system for CT dose calculator, WAZA-ARIv2
NIRS Yusuke Koba

0-118 Real-time and Multichannel Patient Dosimeter that used red emission phosphor
Tohoku Univ. Masaaki Nakamura

0-119 A study of local diagnostic reference level used image quality in percutaneous coronary intervention
Tohoku Univ. Yohei Inaba

0-120 Withdrawn

23. Radiation Protection/Health Physics 2 10:10–10:50 Moderator: Akihiro Nohtomi

★ **0-121** CALCULATION OF RADIATION SHIELDING FOR MEGAVOLTAGE GAMMA RAY FACILITY USING MONTE CARLO CODE EGSnrc
115 People's Hosp., Viet Nam Nguyen Thi Cam Tu

0-122 Comparison of neutron ambient dose between rem counter WENDI-II and NSN2 in scanning proton therapy
Nagoya Univ. Eri Sekihara

0-123 Calculation method of secondary neutron induced dose in proton scanning beam delivery system using aperture
Nagoya Proton Therapy Center Toshiyuki Toshito

0-124 Shielding of the secondary neutrons from collimators in proton therapy
Osaka Univ. Masashi Yamanaka

24. MRI 13:00–14:10 Moderator: Tomonori Isobe

0-125 Hybrid structure design to reduce metallic artifacts in MRI
Hokkaido Univ. Kazuya Oshinomi

0-126 Precise mapping of magnetic field distortion induced by metallic implants: Application of three-dimensional imaging
Hokkaido Univ. Takahiko Kaneda

0-127 Dissolved oxygen concentration dependence of the transverse relaxation time
–Feasibility study of in vivo oxygen concentration changes by MRI–
Hokkaido Univ. Yosuke Takano

★ **0-128** Improved T1 correction for cardiac-triggered fMRI at ultra-high field
National Institute of Information and Communications Technology Takashi Ueguchi

0-129 Respiratory fluctuation in venous blood oxygenation in healthy human body
Hokkaido Univ. Keigo Nishi

★ **0-130** Brain arteriolar elastic mapping obtained from magnetic resonance signal fluctuations
– Application to dementia patients –
Hokkaido Univ. Minghui Tang

0-131 Influence of patient positioning on RF heating due to metallic implants during MRI examination
Hokkaido Univ. Yu Kikuchi

★：English Presentation

25. Particle Therapy 7　9:10–10:10　Moderator: Manabu Mizota

O-132 A study for precise calculation of monitor unit in passive spreading proton-beam
Nagoya City West Medical Center　Yoshiaki Kibe

O-133 The calculation of the field size factor using the Clarkson integration method in the MU calculation of proton therapy
Fujita Health Univ.　Tetsuhiro Yamakawa

O-134 Dependence of field size factor on the off center distance in MU calculation for passive proton therapy
Nagoya Univ.　Tomoki Kitagawa

O-135 Development of dose-calibration-factor calculation using Clarkson integration for proton therapy using beam-wobbling system
Univ. of Tsukuba　Yuki Nagata

O-136 A dose correction method for particle radiotherapy using an ultrafast beam scanning system
NIRS　Ryohei Tansho

O-137 Withdrawn

26. Photon/Electron Beam Therapy 10 (Electron Beam Therapy)　10:20–11:10　Moderator: Hiroshi Oguchi

O-138 Development of a dose measurement tool with plastic scintillator for electron beam therapy
Kitasato Univ.　Katsunori Yogo

O-139 Optimization of Depth Dose Distribution in Electron Beam by Using Degrader
Nagoya Univ.　Seira Shimada

O-140 Validation of an electron Monte Carlo dose calculation algorithm in clinical condition using EGSnrc and measurements
Kyoto Univ. Hosp.　Takahiro Fujimoto

O-141 Examination of the depth dose distribution in electron beam irradiation using applicator with a side view mirror
Gifu Univ.　Tomohiro Shimozato

O-142 Investigation of intraorbital dose distribution in electron beam therapy with Eye Shield
Ise Red Cross Hosp.　Akira Kamaya

27. Photon/Electron Beam Therapy 11 (Detector and Dose Evaluation Tools)　13:00–14:00　Moderator: Yuji Nakaguchi

★ **O-143** Dosimetric Evaluation of Measurement-Guided 3D Dose Verification System Using Polymer Gel Dosimeter
Hiroshima Heiwa Clinic　Kaoru Ono

O-144 Impact of the tongue and groove effect using a 2-D diode array for DMLC IMRT verification
Kinki Univ. Hosp.　Masakazu Otsuka

O-145 Comparison of three-dimensional diode detector and two-dimensional in VMAT dose verification
Hyogo College of Medicine College Hosp.　Tsukasa Wakayama

O-146 Commissioning of Delta^{4DVH} Anatomy software
Chiba Cancer Center　Ryohei Miyasaka

O-147 Basic property of MID-SOF detector in radiotherapy field
Teikyo Univ.　Ryohei Uemura

O-148 Effects on the dose distribution due to aging of gafchromic film (EBT3)
Institute of Biomedical Research and Innovation Hosp.　Sho Taniuchi

28. Photon/Electron Beam Therapy 12 (Dose Measurement/Others)

14:00–14:50 Moderator: Takeshi Ohno

O-149 Temperature characteristics of Farmer dosimeter in water
Tsukuba Medical Center Hosp. Yuichi Kato

O-150 Study of ion recombination factor of a small radiation field and small ionization chambers in Flattening-Filter-Free (FFF) Photon Beams
Asahikawa Medical Univ. Hosp. Hideki Hayashi

O-151 Study of the Effect of the Source to Surface Distance Scaling for Large Fields on Beam Data Modeling
Juntendo Univ. Satoru Sugimoto

O-152 Evaluation of Image Quality and Dose for Megavoltage Computed Tomography on Tomotherapy Unit with the Change of Jaw Size
Shonan Kamakura General Hosp. Hironori Nagata

★ **O-153** Visualization of the treatment area in helical tomotherapy system
The Univ. of Tokyo Hosp. Akihiro Haga

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29. Detector and Dose Measurement Tools 1

9:00–9:50 Moderator: Yusuke Koba

★ **O-154** Development of ultra-miniature dosimeter for diagnostic X-ray with invisibleness in fluoroscopic X-ray image
Hokkaido Univ. Masayori Ishikawa

★ **O-155** Monte Carlo simulation of gamma-ray response of $CeBr_3$ scintillation detector
Osaka Univ. Taku Nakaji

O-156 Development of a 360 degree panorama Compton camera using CsI(Tl) scintillator
Kitasato Univ. Takara Watanabe

O-157 Development of a Compton Camera "γI" Using CsI (Tl) Crystals
Ibaraki Univ. Mika Kagaya

O-158 Reduction of readout channels by 3D resistor networks for X'tal cube PET detector
Tokyo Institute of Technology Hiromu Aoshima

30. Detector and Dose Measurement Tools 2

10:00–11:00 Moderator: Chie Kurokawa

O-159 Backscatter Factors of Various Materials for Diagnostic X-rays
Tokyo Metropolitan Univ. Tsuguhisa Katoh

★ **O-160** Development of attenuation coefficient reconstruction algorithm with high accuracy
The Univ. of Tokyo Hosp. Dousatsu Sakata

O-161 Examination of two-dimensional dose distribution measurement with Al_2O_3 ceramics TL slab in water phantom
Tokyo Metropolitan Univ. Shin Yanagisawa

O-162 Preliminary study of a bolus employing the polymer gel in breast radiation therapy
Tsukuba Medical Center Hosp. Kazuya Shinoda

O-163 Fundamental examination of the electron beam quality control using Cherenkov radiation
Seirei Mikatahara General Hosp. Kengo Sugimoto

O-164 Four-dimensional dose distribution measurement using plastic scintillator and cooled CCD camera
The Cancer Institute Hosp. Masatoshi Hashimoto

★：English Presentation

31. Detector and Dose Measurement Tools 3　11:00–11:50　Moderator: Hideyuki Mizuno

O-165 Development of a separated calibration system for electrometer and ionizing chamber (1): Standard electrometer
Association for Nuclear Technology in Medicine　Nobuhiro Takase

O-166 Development of a separated calibration system for electrometer and ionizing chamber (2): Charge for comparative calibration
Association for Nuclear Technology in Medicine　Nobuhiro Takase

★ **O-167** Study on stem and cable leakage of ionization chamber
Tokyo Metropolitan Univ.　Ryohei Yamauchi

★ **O-168** Changes in absorbed dose to water evaluation caused by shift from JSMP01 to JSMP12
Tokyo Metropolitan Univ.　Mitsunobu Igari

O-169 Calibration of the ionization chamber dosimeter by high-energy photon beam
Hiroshima Univ.　Tatsuhiko Suzuki