【General Session】

April 14 (Thu)　　PACIFICO Yokohama Conference Center　418

1. Radiation Therapy (photon/electron) 1 (QA/Measurement 3)

13:00–14:00　　Moderator: Hidekazu Nambu

O-001　Effect of source positional discrepancy on dose and dose distributions in Cobalt-60 stereotactic radiosurgery units

Fukui Prefectural Hosp.　　Hisato Nakazawa

O-002　Verification of irradiation accuracy for the MLC on CyberKnife

Toyota Memorial Hosp.　　Junji Suzuki

O-003　Detection of jaw position during VMAT applied jaw tracking method using cine image

Juntendo Univ.　　Toru Kawabata

O-004　Kompeito-shot: A study of systematic error of verification system for three-dimensional beam alignment

Hiroshima Univ.　　Masato Tsuneda

O-005　Evaluation of Medi-module water-equivalent phantom

National Center Canser Hosp. East　　Yohei Takeda

O-006　Development of a postal audit method for IGRT credentialing in multi-institutional clinical trials in Japan

Saitama Medical Univ. International Medical Center　　Yu Kumazaki

2. Radiation Therapy (photon/electron) 2 (IGRT/Respiratory gated therapy 1)

14:00–15:00　　Moderator: Masayori Ishikawa

O-007　A concept of respiratory classification for the applicability to respiratory tracking treatment using respiratory tumor kinematics

Osaka Univ.　　Yusuke Anetai

O-008　The development of a hybrid motion sensor using position sensitive detector and infrared camera for respiratory-gated radiation therapy

Kanagawa Cancer Center　　Kenji Shioiri

O-009　Observation of the body surface motion for the respiratory management using laser based optical surface scanning system

Seirei Hamamatsu General Hosp.　　Takuma Matsunaga

O-010　Development of a time delay measurement system for gated radiotherapy

Komazawa Univ.　Tomoyuki Kurosawa

O-011　Tumor tracking with a gimbaled linac system quality assurance using a light field

HIPRAC　　Hideharu Miura

★ **O-012**　Automated localization of anatomical feature points in infrared ray-based range images of patient surfaces by using differential geometry

Kyushu Univ.　　Mazen Soufi

3. Radiation Therapy (photon/electron) 3 (IGRT/Respiratory gated therapy 2)

15:10–16:10　　Moderator: Shuichi Ozawa

O-013　Development of cross-type carbon fiber antiscatter grid for cone beam computed tomography in radiation therapy

Juntendo Univ.　　Keisuke Usui

O-014　Artifact reduction processing of kV CBCT using the partial segmentation reconstruction method

Tokyo Metropolitan Univ.　　Wataru Yokohama

★ **O-015**　Effect of breathing patterns on three-dimensional target position in X-ray fluoroscopic and four-dimensional cone-beam computed tomography imaging

Kyoto Univ.　　　Hiraku Iramina

★ **O-016**　Development of a framework for automated estimation of lung tumor locations in MV-CBCT images for target-based patient positioning in SBRT

Kyushu Univ. Beppu Hosp.　　Satoshi Yoshidome

★ **O-017**　Reconstruction of megavoltage computed tomography with rapid scan time and extended field of view

The Univ. of Tokyo Hosp.　　Taiki Magome

★ **O-018**　Time-ordered 4D cone-beam CT iterative reconstruction for pelvic region

Tokyo Univ.　　Masahiro Nakano

4. Radiation Therapy (photon/electron) 4 (IGRT/Respiratory gated therapy 3)

16:10–17:00　　　　Moderator: Yuji Nakaguchi

O-019　A fundamental study of patient-setup based on the dose distribution during a course of radiotherapy

Tohoku Univ.　　Suguru Dobashi

O-020　Analysis of the effects of inter-fractional motion on dose distributions in intensity-modulated radiotherapy of prostate cancer

Tohoku Univ.　　Ryohei Kato

O-021　Analysis for the pressure level and intra-fractional motion using a mask system in intra-cranial treatment

Saiseikai Imabari Hosp.　　Hiroki Inata

O-022　A study for quantification of actual patient dose for MVCT with helical tomotherapy unit using general treatment planning system

Shonan Kamakura General Hosp.　　Hironori Nagata

O-023　The energy spectra of the MV images by electron mode of linear accelerator

Tokyo Metropolitan Univ.　Atsushi Myojoyama

5. Radiation Therapy (photon/electron) 5 (Radiation biology/Other)

17:00–17:50　　　　Moderator: Hajime Monzen

O-024　Determination of the cell survival curve considering the lethal lesion number per nucleus after irradiation

Hokkaido Univ.　　Ryota Yamada

O-025　SimCell: The virtual cell Monte Carlo simulator for radiation therapy

Miyakojima IGRT Clinic　　Hiroya Shiomi

★ **O-026**　Assessment of early tumor response to chemoradiotherapy based on repeated FDG-PET images: from lung cancer to head and neck

Karolinska Institutet, Sweden　　Marta Lazzeroni

★ **O-027**　Estimation of cell-killing based on the probability density of DNA contents in cell population

Hokkaido Univ.　　Yusuke Matsuya

★ **O-028**　Radiobiological modelling of tumour response in search for optimal radiotherapy treatment parameters: the impact of time, dose and fractionation

Stockholm Univ., Sweden　　Emely Lindblom

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6. Radiation Therapy (heavy particle) 1 (Irradiation technique 1)

13:00–13:50　　　　Moderator: Kyo Kume

★ **O-030**　Benchmarking of proton spot scanning beam at Skandion clinic with the Monte Carlo code MCNP6

Stockholm Univ., Sweden　　Oscar Ardenfors

★ **O-031**　The development of a proton-beam grid therapy (PBGT)

Stockholm Univ., Sweden　　Thomas Henry

★ **O-032**　A developmentof a ripple filter for proton line scanning

Sumitomo Heavy Industries, Ltd.　Nagaaki Kamiguchi

★ **O-033**　Development of new Carbon-Knife treatment system

Gunma Univ.　Keawsamur Mintra

★ **O-034**　Design and development of CT-based three-dimensional image guided adaptive proton therapy

The National Cancer Center Hosp. East　Hidenobu Tachibana

7. Radiation Therapy (heavy particle) 2 (Irradiation technique 2/Other)

13:50–14:40　　　　Moderator: Masataka Komori

O-035　Evaluation of wide-angle scattering generated by beamline components in case of proton beam spot scanning method

Hokkaido Univ.　　Hideaki Ueda

O-036　Improvement of dose uniformity with spiral wobbler method at SAGA HIMAT Foundation

SAGA HIMAT　　Takeshi Himukai

O-037　A novel shape ridge filter for particle beam therapy

Hitachi, Ltd.　Taisuke Takayanagi

O-038　Commissioning status of new carbon-ion radiotherapy facility i-ROCK (2)

Kanagawa Cancer Center　　Shinichi Minohara

O-039　Trial of on-site audit for carbon ion radiotherapy facilities

NIRS　　Hideyuki Mizuno

8. Radiation Therapy (heavy particle) 3 (Biological effect)

14:50–15:50　　　　Moderator: Taeko Matsuura

★ **O-040**　Optimization of the spread-out bragg peak (SOBP) design considering the oxygen effect

Gunma Univ.　Athena Evalour S. Paz

★ **O-041**　Microdosimetric approach to the modelling of oxygen effect for the inclusion in treatment planning for charged particle therapy

NIRS　　Cécile Bopp

★ **O-042**　The impact of a variable RBE for different combinations of dose, LET and α/β in proton therapy

Stockholm Univ., Sweden　　Jakob Ödén

★ **O-043**　A treatment planning comparison of radiation therapy with either photon- or proton-beams for stomach and liver cancer

Stockholm Univ., Sweden　Gracinda Mondlane

O-044　NTCP parameter of mucositis in head and neck cancer patients treated by carbon ion radiotherapy.

Gunma Univ.　　Kyohei Fukata

O-045　Radioprotection of methionine from plasmid DNA damage by carbon ion beam

Kitasato Univ.　　Katsunori Yogo

9. Radiation Therapy (heavy particle) 4 (Dosimetry/Measurement)
<div align="right">15:50–16:40　　　　Moderator: Makoto Sakama</div>

O-046　Luminescence imaging of water during proton-beam irradiation for range estimation
<div align="right">Nagoya Univ.　　Seiichi Yamamoto</div>

O-047　Evaluation of the physical characteristics of grids of carbon microbeams for use in microbeam radiation therapy with the PHITS code
<div align="right">Osaka Univ.　　Toshiro Tsubouchi</div>

★ **O-048**　Modeling of recombination characteristics in heavy-ion dosimetry with a track structure model (3)
<div align="right">Tokyo Institute of Technology　Minoru Tatebayashi</div>

O-049　Measurement of radiation quality of therapeutic carbon ion beams using a silicon detector
<div align="right">Gunma Univ.　　Kohei Osaki</div>

O-050　Investigation of beam component measurement using polymer gel detector for neutron capture therapy 2
<div align="right">Hiroshima Univ.　　Kenichi Tanaka</div>

10. Radiation Therapy (heavy particle) 5 (QA/Other)　16:50–17:40　　　　Moderator: Teiji Nishio

★ **O-051**　Water equivalent length calibration for a carbon CT system
<div align="right">Gunma Univ.　　Sung Hyun Lee</div>

★ **O-052**　In-beam OpenPET imaging simulation based on patient data
<div align="right">NIRS　　Hideaki Tashima</div>

★ **O-053**　Optimization of ^{15}O beam for in-beam PET imaging
<div align="right">NIRS　Akram Mohammadi</div>

O-054　Measurement of th production cross-section in target nuclear fragmentation reactions for proton therapy(2)
<div align="right">Rikkyo Univ.　Keiichiro Matsushita</div>

O-055　Basic development of an Electron-Tracking Compton Camera for monitoring a prompt gamma ray in Particle beam therapy
<div align="right">Tokai Univ.　　Shigeto Kabuki</div>

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11. Radiation Therapy (photon/electron) 6 (Radiation treatment planning 1)
<div align="right">9:10–10:00　　　　Moderator: Satoru Sugimoto</div>

O-056　Acceleration of Monte Carlo simulation of scattered photons in a cone-beam CT for radiation therapy
<div align="right">Hosei Univ.　　Hiroaki Suzuki</div>

O-057　Consideration of a dose distribution in a joint of a parapet irradiation field and an irradiation field on the collarbone
<div align="right">Saga National Hosp.　　Yukio Inoue</div>

O-058　Improvement of calculation accuracy in photon transport using the lattice Boltzmann method
<div align="right">Tokyo Metropolitan Univ.　　Takahito Chiba</div>

O-059　Comparison of dose calculation algorithms in lung stereotactic body radiation therapy
<div align="right">Fukuoka Tokushukai Medical Center　　Shigeo Anai</div>

★ **O-060**　Algorithm performance evaluation: gradient-descent, simulated annealing, and hybrid method for finding an optimum of a function
<div align="right">Kyushu Univ.　Mohammad Haekal</div>

12. Radiation Therapy (photon/electron) 7 (Radiation treatment planning 2)

10:00–10:50   Moderator: Iori Sumida

O-061 Transference of IMRT planning data to the different site: from 10mm-width-MLC to 5mm-width-MLC

Kawasaki Saiwai Hosp.   Saori Itoh

★ **O-062** Cumulative segmental MU-weighted field edges for estimating the deviation in the absolute dose verification of Intensity-Modulated Radiation Therapy

Hiroshima Univ. Hosp.   Akito Saito

★ **O-063** Impact of VMAT dose calculations with respiratory movements in lung

Kumamoto Univ.   Kazuki Komatsu

★ **O-064** Integral dose to normal structures from cervix rapid-arc radiotherapy planning

Rajiv Gandhi Cancer Institute & Research Center, India   Lalit Kumar

★ **O-065** Development of knowledge-based NTCP prediction tools for IMRT treatment planning

Niigata Univ. Medical and Dental Hosp.   Satoshi Tanabe

13. Radiation Therapy (photon/electron) 8 (Radiation treatment planning 3)

11:00–11:50   Moderator: Satoru Utsunomiya

★ **O-066** Analysis of multicenter contouring data for stereotactic radiosurgery

Stockholm Univ. and Karolinska Institutet, Sweden   Helena Sandström

★ **O-067** An approach for evaluation of dose distributions in intensity modulated radiotherapy planning for prostate cancer

Kyushu Univ.   Ryosuke Asamura

O-068 Study of model creation to be used in the Knowledge based planning

Seirei Hamamatsu General Hosp.   Yumiko Adachi

O-069 Comparison of irradiation time and dose distribution for cases with different jaw width via tomotherapy

Radiation Therapy Center, Koga21 Hosp.   Shigeki Kitajima

O-070 Comparison of CyberKnife treatment times:fixed,iris,MLC

Toyota Memorial Hosp.   Hironori Takahashi

14. Radiation Therapy (photon/electron) 9 (Radiation treatment planning 4)

15:40–16:30   Moderator: Shinichiro Mori

O-071 Estimation of internal deformation using boundary conditions and optimum organ material parameters

Teikyo Univ.   Shinobu Kumagai

★ **O-072** Quantification of imaging doses from four-dimensional computed tomography scans with orthogonal dual source kV X-ray tubes

Kyoto Univ. Mitsuhiro Nakamura

O-073 Does dual-kV subtraction of CT images for electron density calibration offer a virtual 1-MeV CT image?

Niigata Univ.   Masatoshi Saito

★ **O-074** Theoretical consideration of material decomposition with prior information compressed sensing

The Univ. of Tokyo Hosp.   Akihiro Haga

O-075 Design and development of ventilated and non-rigid phantom quantitatively evaluating CT-based pulmonary ventilation imaging

Univ. of Komazawa   Shin Miyakawa

15. Radiation Therapy (photon/electron) 10 (IMRT/VMAT)
                                                        16:30–17:20   Moderator: Takehiro Shiinoki

O-076 Dose calculation accuracy for volumetric modulated arc therapy in multiple brain metastases
                                                Kumamoto Radiosurgery Clinic   Hirofumi Tominaga

O-077 Attempt to visualization of impact on IMRT dose distribution by MLC parameter value
                                                        Univ. of Niigata   Ayami Numata

O-078 Comparison of the peripheral dose due to different IMRT techniques for pediatric head and neck radiation therapy
                                                Kagoshima Univ. Medical and Dental Hosp.   Masahiko Toyota

★ **O-079** An optimization model for VMAT technique based exclusively on patient image data
                                                        Univ. of Stockholm, Sweden   Ana Ureba

★ **O-080** Evaluation of the statistical dose-uncertainty in prostate VMAT
                                                Juntendo Univ. Urayasu Hosp.   Tatsuya Inoue

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16. Diagnostic Imaging (X-Ray/CT) 1   9:10–10:00   Moderator: Shinichi Wada

O-081 Adaptive Statistical Iterative Reconstruction in X-ray CT for Visualization of Acute Ischemic Stroke
                                                        Kitasato Univ.   Hidetake Hara

O-082 Generating nodule-like object functions for evaluating CAD performance in lung cancer CT screening
                                                        Niigata Univ.   Akihiro Narita

★ **O-083** Accurate volume measurement for lung nodule in CT image by Deconvolution method
                                                        Niigata Univ.   Hideyoshi Sugawara

O-084 Investigation of plane depiction performance in mammography tomography
                                                Nagasaki Harbor Medical Center City Hosp.   Yoshihiro Tokita

O-085 Image fusion of a dental CT image with a face image
                                                        Hosei Univ.   Kohei Kawai

17. Diagnostic Imaging (X-Ray/CT) 2   10:00–10:50   Moderator: Masao Matsumoto

O-086 Dual-energy computed tomography system utilizing a silicon X-ray diode and an energy-selecting device
                                                Iwate Medical Univ. Hosp.   Yuichi Sato

O-087 Dual-energy X-ray computed tomography system using a CdTe detector and two energy-selecting devices
                                                Iwate Medical Univ.   Michiaki Sagae

O-088 Spectral X-ray computed tomography system using a cadmium telluride detector
                                                Iwate Medical Univ.   Eiichi Sato

O-089 A novel photon counting CT operating at low dose using multi-pixel photon counter
                                                Waseda Univ.   Hayato Morita

O-090 Investigation of a metal artifact reduction using energy dispersive X-ray computed tomography
                                                Iwate Medical Univ.   Satoshi Yamaguchi

18. Radiation Therapy (heavy particle) 6 (Radiation treatment planning)
                                                        10:50–11:50   Moderator: Hideyuki Takei

O-091 Analyses of daily anatomical variation utilizing in-room CT system for prostate cancer proton therapy and the optimaized treatment planning
                                                Fukui Prefectural Hosp.   Yoshikazu Maeda

O-092　Effectiveness of CT-based three-dimensional image guided adaptive proton therapy

Komazawa Univ.　　Shunsuke Moriya

O-093　Development of a GPU-based optimization method for dose distribution of proton beam scanning

Mizuho Information & Research Institute, Inc　　Akira Sano

O-094　Robustness analysis method with fast estimation of dose uncertainty distributions for carbon-ion therapy treatment planning

NIRS　　Makoto Sakama

O-095　The evaluation of proton plan robustness for spot scanning irradiation

Hokkaido Univ. Hosp.　　Yuka Matsuzaki

O-096　Commissioning of the eclipse proton^{TM} treatment planning system for proton line scanning therapy

Aizawa Hosp.　　Yuya Sugama

19. Radiation Therapy (heavy particle) 7 (Respiratory motion 1)

15:40–16:40　　　Moderator: Naoki Miyamoto

O-097　Correlation between respiratory motion around body surface and diaphragm breathing motion with body immobilization devices in respiratory-gated carbon ion radiotherapy

SAGA HIMAT　　Genyu Kakiuchi

O-098　A dose comparison between real-time gated and free-breathing irradiation in spot scanning proton therapy for lung cancer

Hokkaido Univ.　　Takahiro Kanehira

O-099　The effect of irradiation delay time in respiratory gated passive proton therapy with fiducial marker

Nagoya Proton Therapy Center　　Akira Shimomura

O-100　Influence of intrafractional motion on the respiratory gated patching and matching techniques in proton beam therapy

Southern Tohoku Proton Therapy Center　　Masato Kato

O-101　The effect of a moving target to the dose at the field junction in a multi-patch technique for proton therapy

Nagoya Univ.　　Takuya Yabe

O-102　Rapid phase-correlated rescanning irradiation improves treatment time in carbon-ion scanning beam treatment under irregular breathing conditions

NIRS　　Shinichiro Mori

20. Radiation Therapy (heavy particle) 8 (Respiratory motion 2)

16:50–17:50　　　Moderator: Suguru Dobashi

O-103　Evaluation method for depth dose distributions using a multi-layer ionization chamber in respiratory gating irradiation for proton therapy

Shizuoka Cancer Center　　Yuki Kase

O-104　A comparison study of motion interplay effects between IMPT and SFUD in liver real-time-image gated, spot-scanning proton beam therapy

Hokkaido Univ.　　Taeko Matsuura

★ O-105　Consequence of omitting image guidance in carbon ion radiation therapy

Gunma University Heavy Ion Medical Center　　Daniel Bridges

O-106　Feasibility study of fast cone-beam CT image acquisition with a dual-orthogonal fluoroscopic imaging system

Hokkaido Univ. Hosp.　　Seishin Takao

O-107　Basic verification of motion-target tracking technique using dual energy subtraction method

Hokkaido Univ.　　Takaaki Fujii

★ **O-108**　Evaluation of high-precision automatic patient positioning system with fast calculation in carbon ion radiotherapy; patient study

Univ. of Gunma　　　Hayato Hayashi

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Joint Symposium 2
Special Presentation Prelude　　　　　　　　　9:10–9:40　　　　Moderator: Shinichiro Mori

★ Development of kV X-ray imaging dose calculation system for image guided radiotherapy

Kyoto Univ.　Yoshitomo Ishihara

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21. Radiation Therapy (photon/electron) 11 (QA/Dosimetry 2)
9:10–10:00　　　　Moderator: Naoki Hayashi

★ **O-109**　Quality assurance procedures of Dynamic WaveArc irradiation using electric portal imaging device

Kyoto Univ.　　Hideaki Hirashima

★ **O-110**　Measurement of corneal doses during external beam radiotherapy of head and neck malignancies

SMS Medical College, India　　Arun Chougule

★ **O-111**　Microdosimetric study focused on biological effect of flattening filter free beam

Shizuoka Cancer Center　　Tatsuya Segawa

O-112　Trying to accuracy improvement of independent MU verification using TG-114

Toho Univ. Sakura Medical Center　　Teruo Ito

O-113　Comparison in confidence limits between NCCHE and multi-institutional trial for independent MU verification

Komazawa Univ.　　Shunta Jinno

22. Radiation Therapy (photon/electron) 12 (QA/Dosimetry 3)
10:00–10:50　　　Moderator: Hiroyuki Okamoto

O-114　Investigation of the feasibility of in vivo EPID dosimetry for prostate cancer patients

Tohoku Univ.　　Yoshiki Takayama

O-115　A study of verification method of dose gradient using a micro type ionization chamber in prostate VMAT

NTT Medical Center Tokyo　　Norihisa Osawa

★ **O-116**　Deblurring measured radiation profile using a Gaussian expansion method with a regularization term of first derivative

Juntendo Univ.　　Satoru Sugimoto

O-117　Consideration of reciprocity method of a parallel plate type dosimeter using an electron beam

Iwate Prefectural Isawa Hosp.　　Koji Ishita

O-118　Study of measurement method of bio-information using near infrared radiation

Hiroshima Univ.　　Teiji Nishio

23. Brachytherapy
10:50–11:50　　　Moderator: Yutaka Takahashi

O-119　Multi-institutional study of assessment of source dwell position in brachytherapy

NCCH　　Hiroyuki Okamoto

O-120　Development of a deformable woman's pelvis phantom with physiological characteristics for evaluation of DIR accuracy using 3D-printer

Tohoku Univ.　　Yuya Miyasaka

0-121 Study of developing a quality control tool for high-dose-rate brachytherapy unit with light produced by iridium-192 source

Kitasato Univ. Akihiro Matsushita

0-122 Feasibilty study of metal artifact reduction in gynecologic brachytherapy

Ryukyus Univ. Masashi Kinjyo

★ **0-123** Influence of tissue heterogeneity on dose distributions in intracavitary brachytherapy for uterine cervical cancer with Monte Carlo simulation

Kyushu Univ. Takahiro Iwasaki

★ **0-124** Absorption and scattering effect from source capsules in ^{125}I brachytherapy dose calculations.

Kumamoto Univ. Kentarou Tamura

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24. Magnetic Resonance 1　　　　　　　　　9:10–10:00　　　Moderator: Masahiro Umeda

★ **0-125** Optimization of the asymptotic analysis in intravoxel incoherent motion MRI

Kyoto Univ. Yen-Peng Liao

0-126 Scanning parameter dependence of crossing neuronal fiber depiction accuracy in Diffusion Spectrum Imaging

Hokkaido Univ. Kazuya Oshinomi

0-127 Ultra-high-field MR imaging of the human brain: spatially-inhomogeneous magnetization transfer effects in multislice acquisition

NICT Takashi Ueguchi

0-128 Quantitative accuracy of magnetic field distortion mapped by MRI

Hokkaido Univ. Takahiko Kaneda

0-129 Patient positioning to reduce RF heating of implanted materials

Hokkaido Univ. Yu Kikuchi

25. Magnetic Resonance 2　　　　　　　　　10:10–10:50　　　Moderator: Hidetaka Arimura

0-130 Two-dimensional compressed sensing MRI using cartesian sampling- computer simulation study

Tokyo Metropolitan Univ. Hiroyuki Shinohara

0-131 Two-dimensional compressed sensing MRI using radial sampling- computer simulation study

Tokyo Metropolitan Univ. Hiroyuki Shinohara

0-132 Development of learning tool for compressed sensing MRI

Tokyo Metropolitan Univ. Hiroyuki Shinohara

★ **0-133** Development of a PET/RF-coil integrated system for MRI: comparative MRI study for with- and without-PET modules

NIRS Md Shahadat Hossain Akram

26. Nuclear Medicine 1　　　　　　　　　14:00–15:00　　　Moderator: Seiichi Yamamoto

★ **0-134** In-beam OpenPET measurement of washout rate in rabbits using ^{10}C, ^{11}C and ^{15}O ion beams

NIRS Chie Toramatsu

0-135 Improved spatial resolution of the 4-layered DOI-PET detector by the quadrisected top layer crystals

Chiba Univ. Genki Hirumi

0-136 Feasibility study on novel depth-of-interaction detector using Vp/Q discrimination method

Hokkaido Univ. Ryo Ogawara

0-137 Simulation study on novel depth-of-interaction PET detector by the Vp/Q discrimination method using GEANT4 Monte Carlo code

Hokkaido Univ. Ryo Ogawara

★ **O-138**　Feasibility study of a pixilated mouth-insert detector in the helmet PET

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　NIRS　　Abdella M. Ahmed

O-139　First healthy volunteer study of high sensitive helmet-chin PET prototype

　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　NIRS　　　　Eiji Yoshida

27. Nuclear Medicine 2　　　　　　　　　　　　15:00–16:00　　　Moderator: Eiji Yoshida

O-140　Development of attenuation correction method for helmet-chin PET prototype using CT images

　　　　　　　　　　　　　　　　　　　　　　　　　　　　NIRS　　　　　　Yuma Iwao

O-141　Evaluation of exposure amount of PET / CT examination at the time in Fukushima Medical University

　　　　　　　　　　　　　　　　　　　Fukushima Medcal Univ.　　Takamitsu Hara

O-142　Calibration of clinical PET scanners using a traceable Ge-68/Ga-68 point-like source with a spherical acrylic absorber

　　　　　　　　　　　　　　　　　　　　　　　　Kitasato Univ.　　　Shoji Koyama

O-143　Monte Carlo simulation for the multi-pinhole SPECT

　　　　　　　　　　　　　　　　　　　　　　　　Hosei Univ.　　　Yutaro Hemuki

O-144　Improving diagnosability of SPECT image by edge preserving smoothing filter

　　　　　　　　　　　　　　　　　　　Teikyo Univ.　　Susumu Nakabayashi

★ **O-145**　Y-90 bremsstrahlung imaging using compton camera

　　　　　　　　　　　　　　　　　　　　　　　　Gunma Univ.　　　Makoto Sakai

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28. Image (Processing/Analysis/Informatics)/Medical Informatics1 (Imaging simulation and reconstruction)
　　　　　　　　　　　　　　　　　　　　　　9:10–10:00　　　Moderator: Jun'ichi Kotoku

★ **O-146**　Geant4 simulation study of a compton-PET imaging system using advanced 3D positioning detectors

　　　　　　　　　　　　　　　　　　　　　　　　NIRS　　　　Jianyong Jiang

★ **O-147**　Simulation of motion induced data from different real SPECT data using algorithm

　　　　　　　　　　　　　　　　　　BAEC・NINMAS, Bangladesh　　Md. Nahid Hossain

O-148　Effect of metal artifact reduction using continuous-time CT image reconstruction method

　　　　　　　　　　　　　　　　　　　　Tokushima Univ.　　　Shintaro Harano

★ **O-149**　The optimization of iteration numbers for CBCT used OSEM and image evaluation with NPS: comparison filtered back projection

　　　　　　　　　　　　　　　　　　Sapporo Medical Univ. Hosp.　　Hiroki Shishido

★ **O-150**　Phase recognition system for tracking tumor using pre-4DCBCT in FFF mode: A markerless study

　　　　　　　　　　　　　　　　　　University of Tokyo　Ritu Bhusal Chhatkuli

29. Image (Processing/Analysis/Informatics)/Medical Informatics2 (Novel radiation measurement and Medical imaging)　　　　　　　　　　10:00–11:00　　　Moderator: Akihiro Haga

O-151　Production of gamma-ray spectrometer for education of radiation physics

　　　　　　　　　　　　　　　　　　　　Kitasato Univ.　　　Tomoe Maegaki

O-152　Discrete tomographic image reconstruction using differential equation

　　　　　　　　　　　　　　　　　Shimane Prefectural Central Hosp.　Kazuhiro Nakahama

O-153　Automatic conversion of body surface 3D mesh model to ROI data with portable 3D scanner

　　　　　　　　　　　　　　Mizuho Information & Research Institute, Inc.　　Makiko Suitani

O-154　Development of a real time tumor tracking system in MV X-ray image using optical flow

　　　　　　　　　　　　　　　　　　　　Kinki Univ.　　　Yusuke Tenma

O-155 Estimation of proton beam dose distribution by emission intensity from a fluorescent plate

The Wakasa Wan Energy Research Center　　　Fuyumi Ito

O-156 Evaluation of the spatial resolution of heavy ion CT system using MTF by radial-edge method

Kitasato Univ.　　　Mamoru Yokose

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30. Radiation Measurement 1　　　　9:10–10:10　　　Moderator: Yoshinobu Shimohigashi

O-157 The influence of container size on polymer gel dosimetry

Nagoya Univ.　　　Yume Kojima

O-158 Construction of optical CT system for evaluation of polymer gel dosimeters

Ibaraki Pref. Univ.　　　Hiraku Kawamura

O-159 A potential uncertainty estimation in optical density to dose conversion for film-based dose analysis with Gradient method

Hokkaido Univ.　　　Masayori Ishikawa

O-160 Depth dependence of TL response of Al_2O_3 ceramic TLSD for 6 MV X-ray beam

Tokyo Metropolitan Univ.　　　Shin Yanagisawa

★ **O-161** Study of dosimetric characteristics of a commercial OSL system

SMS Medical College, India　　　Arun Chougule

★ **O-029** Thyroid dysfunction following therapeutic external radiation to head and neck cancer

SMS Medical College, India　　　Arun Chougule

31. Radiation Measurement 2　　　　10:10–10:50　　　Moderator: Akihiro Nohtomi

O-162 Application of Bayesian inference to the on-line neutron/gamma discrimination with a recoil-proton proportional counter.

Univ. of Kyushu.　　　Ryoko Matsuo

O-163 Development of real-time gamma-ray spectrum / dose measurement system (1)

Univ. of Osaka　　　Mina Kobayashi

O-164 Development of an all-sky RI imaging monitor capable of measuring high-dose-rate gamma-ray sources

Kitasato Univ.　　　Takara Watanabe

★ **O-165** Development of an efficient application of a NaI survey meter system in a high dose rate environment

The Wakasa Wan Energy Research Center　　　Kyo Kume

32. Radiation Measurement 3　　　　11:00–11:50　　　Moderator: Toru Kawachi

★ **O-166** A comparison study of four patient dose indices for cone-beam computed tomography

Kyushu Univ.　　　Hidemi Kamezawa

O-167 Gamma-ray dose measurement in neutron field using a radio-photoluminescence glass dosimeter

Osaka Univ.　　　Kosuke Hiramatsu

O-168 Development of in-vivo dosimeter specialized for heavy-ion radiation thearapy

Tokyo Women's Med. Univ.　　　Hiroaki Matsubara

O-169 Evaluation of 1D-profile of wideband prompt gamma-ray emission and optimization toward on-line monitor for the future proton therapy

Waseda Univ.　　　Ayako Koide

O-170 Comparison of the standards for absorbed dose to water of the NMIJ and the BIPM in high-energy photon beams

NMIJ　　　Morihito Shimizu