

## 【General Session】

April 10(Thu) PACIFICO YOKOHAMA Conference Center 418

1. Radiation Therapy 1 (Photon/Electron) 13:00–14:00 Moderator: Satoru Utsunomiya
- 0-001** Analysis of the influence for dose distribution of Target position variation during prostate IMRT  
Hiroshima Univ. Hosp. Shintaro Tsuda
- 0-002** Impact of two systematic position error models on dose evaluation indices at each treatment fraction  
Kyushu Univ. Hosp. Taka-aki Hirose
- 0-003** Influence on the DVHs of target and organs accompanying pitch, roll, and yaw variations in intensity modulated radiotherapy for prostate cancer  
Nagoya Univ. Hosp. Kuniyasu Okudaira
- 0-004** Development of a DVH analysis program for supporting the radiotherapy planning  
Fujita Health Univ. Yumiko Adachi
- 0-005** Accuracy of dose calculation algorithms for intensity-modulated radiotherapy in head and neck  
Kumamoto Univ. Ryota Onizuka
- 0-006** Evaluation of extra-pelvic organ doses in radiotherapy of uterine cervical cancer  
NIRS Kuniaki Nabatame
2. Radiation Therapy 2 (Photon/Electron) 14:10–15:10 Moderator: Naoki Miyamoto
- 0-007** Estimation of 3D target positions using implanted fiducial markers  
Kyoto Univ. Mitsuhiro Nakamura
- 0-008** Feasibility of Dynamic Tracking Irradiation with Single Radiopaque Marker  
Kyoto Univ. Masanori Takamiya
- 0-009** Impact of respiratory signal exceeding range of correlation model on predictive accuracy in infrared-marker-based dynamic tumor tracking  
Institute of Biomedical Research and Innovation Hiroaki Tanabe
- 0-010** Development of hybrid dynamic tumor tracking irradiation using Vero4DRT; A preliminary study  
Institute of Biomedical Research and Innovation Masaki Sueoka
- 0-011** Development of motion tracking verification system for CyberKnife using simple camera and specified sheet  
Osaka Univ. Iori Sumida
- 0-012** Acceptance and Commissioning Procedures for the Next Generation Real-time Tumor Tracking System  
Hokkaido Univ. Masayori Ishikawa
3. Radiation Therapy 3 (Photon/Electron) 15:20–16:10 Moderator: Takashi Kodama
- 0-013** Quality Assurance of 320MSCT for treatment planning  
Yokohama City Univ. Motoki Kumagai
- 0-014** Calculation of dose distribution in radiotherapy by conversion of energy subtracted CT number to electron density with dual energy CT  
Niigata Univ. Masayoshi Tsukihara
- 0-015** A basic study of 3D linear attenuation coefficient reconstruction by MVCBCT  
Kyorin Univ. Takeshi Sakamoto
- 0-016** Evaluation of dose calculation and plan optimization on kilo-voltage cone beam CT with ROI mapping method.  
Univ. of Tokyo Hosp. Akihiro Nomoto
- 0-017** Dose evaluation using MVCT in Tomo HD  
Edogawa Hosp. Masahiro Uematsu

4. Radiation Therapy 4 (Photon/Electron)

16:20–17:10 Moderator: Mitsuhiro Nakamura

- 0-018** Development of a dynamic phantom for quality control in 4D radiotherapy  
Hokkaido Univ. Naoki Miyamoto
- 0-019** The trial of the respiratory surrogate waveform acquisition by the pressure measurement which uses a microcontroller  
Kitasato Univ. Takahiro Shimo
- 0-020** Appropriate CT image for radiotherapy planning of moving lung nodule  
Niigata Univ. Masato Yamaki
- 0-021** Impact of different four-dimensional CT scan methods for tumor with irregular respiratory motion  
National Cancer Center Hosp. East Hidenobu Tachibana
- 0-022** An effect of the data acquisition conditions for the moving tumor affecting to the reconstruction image with the kilo-voltage-CBCT.  
Juntendo Univ. Keisuke Usui

5. Radiation Therapy 5 (Photon/Electron)

17:20–18:00 Moderator: Hiroyuki Okamoto

- 0-023** Estimation of cell surviving fraction after radiation exposure considering the repair of lesions during dose-delivery time  
Hokkaido Univ. Yusuke Matsuya
- 0-024** Preliminary study for prediction of survival time after radiotherapy for high-grade glioma patients based on clinical and DVH features  
The Univ. of Tokyo Hosp. Taiki Magome
- 0-025** Essentiality in actual tumor growth based on cell culture  
Mizuhodai Clinic Atsuo Akanuma
- 0-026** Development of the focal spot position device for a medical linear accelerator  
Okinawa Nanbu Tokushukai Hosp. Shigeo Anai

※  : exhibition

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## 6. Radiation Therapy 1 (Heavy Particle) 13:00–14:10 Moderator: Shinichi Minohara

- 0-027** Dose linearity in respiratory-gated proton therapy  
National Cancer Center Hosp. East Hiroyuki Asai
- 0-028** Monitor-unit derivation for another treatment room of broad beam therapy at HIMAC  
NIRS Manabu Mizota
- 0-029** Study for longitude position dependence to CT-value in 320-row CBCT Volume Scan  
Tokyo Metropolitan Univ. Ryuta Hirai
- 0-030** QA for range-compensator by using CT  
Hyogo Ion Beam Medical Center Kei Katahira
- 0-031** Real patient data based cross verification of kV and Mega-voltage CT calibration for proton therapy  
Rutgers Univ., USA Shie Nishioka
- 0-032** Development of a new range compensator by using a 3D printer  
Mitsubishi Electric Corporation Tomohiro Nishimura
- 0-033** Making the anthropomorphic phantom with 3D printer  
Nagoya Proton Therapy Center Chihiro Omachi

## 7. Radiation Therapy 2 (Heavy Particle) 14:20–15:20 Moderator: Ryosuke Kohno

- 0-034** Current QA report of SAGA HIMAT  
SAGA HIMAT-Heavy Ion Cancer Treatment Center Yoshikazu Tsunashima
- 0-035** Validation of Beam Performance of the New Spot-Scanning Proton Beam Therapy System at Hokkaido University  
Hokkaido Univ. Hideaki Nihongi
- 0-036** Clinical Commissioning of Hokkaido University Hospital Proton Therapy Center  
Hokkaido Univ. Hosp. Chie Toramatsu
- 0-037** Quality assurance of the patching and matching techniques in proton therapy  
Southern Tohoku Proton Therapy Center Takahiro Kato
- 0-038** Clinical commissioning of spot scanning proton beam  
Nagoya Proton Therapy Center Keisuke Yasui
- 0-039** Preparation of the Layer-Stacking Conformal Irradiation System in Fukui Prefectural Hospital, Proton Therapy Center  
Fukui Prefectural Hosp. Makoto Sasaki

## 8. Radiation Therapy 3 (Heavy Particle) 15:30–16:40 Moderator: Hiroki Tanaka

- 0-040** OpenPET project: a proof-of-concept of a novel transformable geometry  
NIRS Taiga Yamaya
- 0-041** A washout study of  $^{11}\text{C}$  in rat brain irradiation using OpenPET: Comparison of washout rate between stress and rest  
NIRS Yoshiyuki Hirano
- 0-042** Study of Dose delivered Tumor Damage Monitoring system in innovative proton therapy technology  
National Cancer Center Hosp. East Teiji Nishio
- 0-043** Refinement of radionuclide generation simulation using Antisymmetrized Molecular Dynamics (AMD)  
Osaka Univ. Masaaki Takashina
- 0-044** Measurement of the production cross-section in fragmentation reaction for proton therapy  
Rikkyo Univ. Keiichiro Matsushita

**0-045** Study of proton CT imaging

The Univ. of Tokyo

Sodai Tanaka

**0-046** Withdrawn

**9. Radiation Protection 1**

**16:50–17:30**

**Moderator: Kenji Sato**

**0-047** Estimation of Benefit/Risk for Lung Cancer Screening by CT in Japan

NIRS

Takeshi Iinuma

**0-048** Development of an x-ray eye lens dose monitoring system using the Kinect sensor system

Kyushu Univ.

Shusaku Sato

**0-049** Radiation exposure evaluation in X-ray fluoroscopy for respiratory gating system

NIRS

Minoru Nakao

**0-050** Examination of radiation shielding calculation by 15MV X ray

Toho Univ. Sakura Medical Center

Teruo Ito

**10. Radiation Protection 2**

**17:30–18:20**

**Moderator: Akira Maruhashi**

**0-051** Demonstration Study Report for the Decontamination of Radioactive Cesium in Forest of Fukushima

Junshin Gakuen Univ.

Shoichi Arai

**0-052** Decontamination of the radioactive contaminated water by the osmosis adhering method using macromolecule polymer

Tokyo Metropolitan Univ.

Hiroki Ohtani

**0-053** Research on exposure dose of people working in Iitate Village

Tokyo Univ. of Hosp.

Akira Sakumi

**0-054** Variation of radiation dose rate in Katsushika at fixed points.

International Univ. of Health and Welfare

Tadamasa Nobesawa

**0-055** Constancy test of gamma-ray dose rate detectors

Chuoh College of Medical Technology

Shinichi Kato

## April 11 (Fri) PACIFICO YOKOHAMA Conference Center 418

## 11. Radiation Therapy 6 (Photon/Electron) 9:00-9:50 Moderator: Hiroshi Oguchi

- 0-056** Examination about a mutual calibration using the electron beam which cannot fill R50>gcm-2  
Iwate Prefectural Isawa Hosp. Koji Ishita
- 0-057** Development of an easy-to-handle dose measurement tool with a plastic scintillator for electron beam therapy ; a test of data reproducibility  
Kitasato Univ. Masato Tsuneda
- 0-058** Development of an easy-to-handle dose measurement tool with a Plastic Scintillator for electron beam therapy: a comparison with dose distribution  
Kitasato Univ. Yuki Aono
- 0-059** Evaluation of dose distributions in the vicinity of high atomic number materials for electron beams  
Tokyo Metropolitan Univ. Norifumi Mizuno
- 0-060** Study of Multi-field irradiation by High-energy electron beam  
Hiroshima Univ. Tatsuhiko Suzuki

## 12. Radiation Therapy 7 (Photon/Electron) 10:00-10:50 Moderator: Akihiro Haga

- 0-061** Dosimetric impact of MLC parameters on IMRT treatment plans  
Niigata Univ. Naoki Shibuya
- 0-062** Investigation of radiophotoluminescence glass dosimeter for dose measurement of IMRT beam.  
Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hosp. Shimpei Hashimoto
- 0-063** A survey towards standardization of dosimetric verification in intensity-modulated radiation therapy –brief report–  
Kyoto Univ. Mitsuhiro Nakamura
- 0-064** A Study on the collimator angle in prostate VMAT  
Chiba Univ. Hosp. Yukinao Abe
- 0-065** Evaluation of inherent dose-uncertainty for VMAT using a dose-uncertainty model  
Juntendo Univ. Tatsuya Inoue

## 13. Radiation Therapy 8 (Photon/Electron) 14:40-15:50 Moderator: Masahiko Kurooka

- 0-066** Evaluation of image position shift due to sagging of OBI system  
Tottori Univ. Hosp. Yasushi Ono
- 0-067** Improvement of EPID images by Compton scattering correction using the three-dimensional reconstructed image  
Tokyo Metropolitan Univ. Masatsugu Hariu
- 0-068** Clinical Evaluation of PTV margin in case of IGRT for Prostate Radiotherapy  
Fujita Health Univ. Hosp. Yasunori Saito
- 0-069** Multi Threads Calculation for the Radiation Therapy Dose Simulator  
Miyakojima IGRT Clinic Hiroya Shiomi
- 0-070** Evaluation of positioning accuracy of stereotactic body radiation therapy for liver tumor by using contrast MRI images  
Hiroshima Heiwa Clinic Kengo Furukawa
- 0-071** Possibility of exposure dose reduction of CBCT in an image guided patient setup system by using various noise reduction filters  
Kyushu Univ. Hidemi Kamezawa
- 0-072** Full FOV reconstruction of cone-beam CT acquired by asymmetrically-located flat-panel detector  
Univ. of Tokyo Masahiro Nakano

- 14. Radiation Therapy 9 (Photon/Electron) 16:00–17:00 Moderator: Satoshi Kito**
- 0-073** Evaluation of the automatic segmentation of the pelvic CT image using two different algorithms  
Tohoku Univ. Yoshitomo Abe
- 0-074** A Study of Efficient Use for Radiation Treatment Planning System equipped with Auto-Segmentation  
Miyagi Cancer Center Akira Ito
- 0-075** Investigation of the most suitable dose calculation CT image in Adaptive Radiotherapy  
Tohoku Univ. Mizuki Chiba
- 0-076** Relationship in the accuracy between a deformable image registration and its dose warping in lung cancer  
Komazawa Univ. Shunsuke Moriya
- 0-077** Evaluation of 4D-CT Pulmonary Ventilation Imaging for Ventilation-guided Radiotherapy  
Tohoku Univ. Takayuki Kanai
- 0-078** Statistical CTV model based on distance images for prostate cancer radiation therapy  
Kyushu Univ. Yusuke Shibayama

- 15. Radiation Therapy 10 (Photon/Electron) 17:00–17:50 Moderator: Shimpei Hashimoto**
- 0-079** Analysis of calculation data at MU Value of the radiation therapy  
Saitama Medical Univ. Munefumi Shimbo
- 0-080** Design and development of CT-based independent dose (monitor unit) calculation for conventional, IMRT and VMAT plans  
National Cancer Center Hosp. East Hidenobu Tachibana
- 0-081** Comparison on virtual wedge of radiation treatment planning system and measurements  
Tokyo Metropolitan Police Hosp. Yoshinori Ohta
- 0-082** Characteristic of “PTW microDiamond Detector (60019)” in Photon Beam Dosimetry.  
Asahikawa Medical Univ. Hosp. Hiroki Yamada
- 0-083** Absorbed dose to water calibration for a 3D dose verification system  
Tokyo Metropolitan Univ. Kensuke Tani

## April 11 (Fri) PACIFICO YOKOHAMA Conference Center 419

## 16. Radiation Therapy (Brachytherapy) 9:00-9:40 Moderator: Yu Kumazaki

- 0-084** Development of strength evaluation method of moving sources for brachytherapy (4) Separation from diagnostic X rays  
Sapporo Medical Univ. Kenichi Tanaka
- 0-085** A study of source position measurement for RALS using Imaging Plate  
Kyorin Univ. Hosp. Takahiro Arai
- 0-086** Dose distribution of  $^{192}\text{Ir}$  brachytherapy sources using PHITS Monte Carlo code  
Kumamoto Univ. Sakito Fukumoto
- 0-087** Investigation of variation of dose distribution in inhomogeneous phantom for intracavitary brachytherapy with HDR  $^{192}\text{Ir}$  using Monte Carlo simulation  
Kyushu Univ. Nguyen Tran

## 17. Nuclear Medicine 9:50-10:50 Moderator: Keisuke Tsuda

- 0-088** Performance Evaluation of the PET/CT and PET/MRI according to NEMA2007 protocol, using delivery FDG.  
Fukushima Medical Univ. Takamitsu Hara
- 0-089** Monte Carlo Simulation of PET and SPECT of  $^{90}\text{Y}$   
Kyushu Univ. Akihiko Takahashi
- 0-090** Progress report: Calibration and evaluation method with traceable point-like sources  
Kitasato Univ. Tomoyuki Hasegawa
- 0-091** Sensitivity booster for DOI-PET by utilizing Compton scattering photons between detector blocks  
NIRS Eiji Yoshida
- 0-092** Computational Cost Reduction using Region-of-Interest Reconstruction for Real-time Tumor Tracking by the OpenPET  
NIRS Hideaki Tashima
- 0-093** Proposal on a stationary data acquisition SPECT with a triple head gamma camera system  
Hosei Univ. Yuta Ichimura

## 18. Diagnostic Imaging 1 (X-ray) 14:40-15:20 Moderator: Eiichi Sato

- 0-094** Dark-less high-speed X-ray energy dispersing using a compact YAP(Ce)- photomultiplier detector and its application to gadolinium imaging  
Iwate Medical Univ. Satoshi Yamaguchi
- 0-095** The accuracy of reconstructed values from the projections in the low x-ray flux using a photon counting detector  
Hosei Univ. Futoshi Kaibuki
- 0-096** Investigation of the energy-dispersive X-ray computed tomography system utilizing a cadmium telluride detector and a frequency-voltage converter  
Iwate Medical Univ. Hosp. Yuichi Sato
- 0-097** k-edge imaging with a photon counting CT  
Hosei Univ. Mariko Matsumoto

## 19. Diagnostic Imaging 2 (X-ray) 15:30-16:10 Moderator: Futoshi Kaibuki

- 0-098** Investigation of the dual-energy dispersive X-ray computed tomography system using a silicon diode and a frequency-voltage converter  
Iwate Medical Univ. Yasuyuki Oda

- 0-099** Investigation of the dual-energy computed tomography system using a double silicon X-ray diode  
Iwate Medical Univ. Eiichi Sato
- 0-100** Development of an X-ray-dosimeter module using a silicon X-ray diode and its application to the high-sensitivity computed tomography system  
Iwate Medical Univ. Michiaki Sagae
- 0-101** Development of a YAP(Ce)-MPPC spectrometer and its application to photon-counting X-ray computed tomography system  
Iwate Medical Univ. Eiichi Sato

**20. Diagnostic Imaging 3 (X-ray) 16:20–17:00 Moderator: Hidetake Hara**

- 0-102** Bone and soft tissue separation in hand radiography using Kinect-based object thickness measurement  
Kyushu Univ. Ryohei Fukuyoshi
- 0-103** Accuracy Evaluation of a Radiographic Simulator System using KINECT  
Kyushu Univ. Takayuki Kurata
- 0-104** Influence of nodule offset in CAD performance evaluation of lung cancer CT screening  
Niigata Univ. Akifumi Yoshida
- 0-105** Extraction of the shadow of cervical vertebrae in panoramic radiographs  
Hosei Univ. Junpei Yamamoto

**21. Diagnostic Imaging 4 (X-ray) 17:10–17:50 Moderator: Shinichi Wada**

- 0-106** Measurement of Table Feed Speed in Modern CT  
Shiga Medical Center for Children Atsushi Fukuda
- 0-107** Study of Virtual Monochromatic Imaging for Visualization of Acute Cerebral Infarction in Dual-Energy CT  
Kitasato Univ. Hidetake Hara
- 0-108** A study of abdominal CT imaging optimized conditions in iterative reconstruction CT  
Saga National Hosp. Yukio Inoue
- 0-109** Perceptual Image Quality Mapping for Iterative Tomographic Reconstruction  
Osaka Univ. Hosp. Sachiko Yamada



## April 12(Sat) PACIFICO YOKOHAMA Conference Center 418

## 22. Radiation Therapy 4 (Heavy Particle) 9:00–10:00 Moderator: Masumi Numano

- 0-110** A study on symmetrization of the laterally asymmetric beam incident on the rotating gantry for carbon-ion therapy  
Univ. of Tsukuba Naoya Iizumi
- 0-111** Optimization algorithm of Spread-Out Bragg Peak with various energies for charged particle therapy  
SAGA HIMAT Takeshi Himukai
- 0-112** Parameterization of pencil beam data for energy scanning in heavy-ion therapy  
NIRS Yousuke Hara
- 0-113** Estimation of an output factor using GEANT4-base Monte-Carlo dose calculation for proton therapy  
Proton Therapy Center, Fukui Prefectural Hosp. Yoshikazu Maeda
- 0-114** Fluence scaling factor of solid phantom for clinical proton dosimetry by experiment and Monte Carlo simulation  
Nagoya Univ. Takaomi Harada
- 0-115** Accuracy-improved fast calculation method of dose distribution in water formed by protons passing through a bolus  
Univ. of Tsukuba Kento Matsui

## 23. Radiation Therapy 5 (Heavy Particle) 10:00–10:50 Moderator: Toshiyuki Toshito

- 0-116** Quantitative Evaluation of Skin Reaction in Carbon Beam Therapy  
NIRS Hiroaki Matsubara
- 0-117** Treatment-planning study of carbon-ion scanning-beam therapy for mesothelioma cases  
NIRS Nobuyuki Kanematsu
- 0-118** Evaluation of the dose-distribution consequences from internal marker in carbon-ion radiotherapy for breast cancer  
NIRS Yusuke Koba
- 0-119** Monte Carlo study of organ doses during carbon-ion radiotherapy with passive beam for prostate cancer  
NIRS Shunsuke Yonai
- 0-120** Initial dosimetric study of whole pelvic irradiation using spot scanning proton therapy  
Hokkaido Univ. Takaaki Yoshimura

## 24. Radiation Therapy 11 (Photon/Electron) 14:40–15:40 Moderator: Kazunori Miyaura

- 0-121** Collision map using a collision detection simulator among treatment apparatus for radiotherapy treatment planning  
Kyoto College of Medical Science Akira Sawada
- 0-122** Realtime 3D tracking with a consumer depth camera  
Teikyo Univ. Shinobu Kumagai
- 0-123** 3D reconstruction of a patient's body using epipolar geometry  
Teikyo Univ. Jun'ichi Kotoku
- 0-124** Computerized monitoring method of intra-fractional patient setup errors by using an infrared ray based time-of-flight camera  
Kyushu Univ. Soufi Mazen
- 0-125** Parallel computing of the dose of TBI using Monte Carlo simulation code EGSnrc and RICC  
Juntendo Univ. Kyohei Fukata
- 0-126** Development of GUI for EGS5  
Tokyo Metropolitan Univ. Atsushi Myojoyama

25. Radiation Therapy 12 (Photon/Electron)

15:50–16:50

Moderator: Toshiyuki Ogata

- 0-127** A study of x-ray energy spectrum from medical linac by scattered photon analysis  
Tokyo Metropolitan Univ. Yuhi Suda
- 0-128** Small Field Modeling for Flattened and Flattening Filter-Free Beams  
Shizuoka Cancer Center Masahiro Konno
- 0-129** Evaluation of beam modeling for small field using flattening filter free beam  
Hiroshima Univ. Daisuke Kawahara
- 0-130** Evaluation of single-isocenter, non-coplanar VMAT SRS using an 80-pair multi-leaf collimator for multiple brain metastases  
Elekta KK Yoshio Iwai
- 0-131** Contribution factors of extracranial doses in patients undergoing gamma knife.  
The Univ. of Tokyo Daisuke Kon
- 0-132** Effect of skull contours on dose calculations in Gamma Knife Perfexion stereotactic radiosurgery  
Nagoya Kyoritsu Hosp. Hisato Nakazawa

## April 12(Sat) PACIFICO YOKOHAMA Conference Center 419

## 26. Magnetic Resonance 9:00-10:00 Moderator: Eisuke Sato

- 0-133** Feasibility study of fast and high-precision T1 measurements in MRI using gradient echo pulse sequence  
Hokkaido Univ. Saaya Takahashi
- 0-134** An Examination of Geometric Distortion in MRI  
Univ. of the Ryukyus Akira Funyu
- 0-135** The Influence of eigenvalues exerted by MPG-directions on diffusion tensor MRI  
Sapporo Medical Univ. Hosp. Hiroki Shishido
- 0-136** Cardiac-gating fMRI at ultra-high field: feasibility of signal intensity correction for heart-rate fluctuation  
National Institute of Information and Communications Technology Takashi Ueguchi
- 0-137** Precise measurements of fluctuation in cerebral venous blood oxygenation for diagnosis of arteriolar function  
Hokkaido Univ. Keigo Nishi
- 0-138** Elastic changes of arteriolar blood volume in the human brain — Estimation based on spin-echo signal fluctuations —  
Hokkaido Univ. Minghui Tang

## 27. Radiometry/Spectrometry/Dosimetry 1 10:10-10:50 Moderator: Shuji Koyama

- 0-139** Photoelectric cross sections based on the Hartree-Fock calculation  
The Univ. of Tokyo Hosp. Akihiro Haga
- 0-140** Calculation of diagnostic X-ray spectrum by using PHITS code  
Kyushu Univ. Hosp. Shuji Nagamine
- 0-141** Measurement of Effective Charge Distribution by Dual-Energy CT Reconstruction  
The Univ. of Tokyo Hosp. Dousatsu Sakata
- 0-142** Development of a novel  $\gamma$ -ray imaging system ( $\gamma$  I:gamma-eye) using Compton camera technique  
Kitasato Univ. Hiroshi Muraishi

## 28. Radiometry/Spectrometry/Dosimetry 2 14:10-15:00 Moderator: Shin-ichiro Hayashi

- 0-143** Temperature dependence of polymer gel during measurement with MRI  
Ibaraki Prefectural Univ. of Health Sciences Hiraku Kawamura
- 0-144** Temperature dependency of polymer gel on radiation dosimetry using MRI  
NIRS Kuniaki Nabatame
- 0-145** Development of 3D dose verification system for volumetric modulated arc therapy using polymer gel dosimeter  
Hiroshima Heiwa Clinic Kaoru Ono
- 0-146** The basic characteristic evaluation of the MAGIC gel dosimeter in the proton beams  
Nagoya Univ. Takayuki Miyachi
- 0-147** Dose Response of Novel Polymer Gel Dosimeters with Heavy-ion Beams  
JAEA Akihiro Hiroki

## 29. Radiometry/Spectrometry/Dosimetry 3 15:10-16:00 Moderator: Naoki Hayashi

- 0-148** Dosimetric Comparison of Landscape and Portrait Orientation in Radiochromic Film Dosimetry  
Univ. of the Ryukyus Yasumasa Kakinohana
- 0-149** Homogeneity and new correction of Gafchromic EBT3 film among several lot numbers  
Osaka Univ. Hosp. Hirokazu Mizuno
- 0-150** Resolution properties of tissue equivalent phantom thermoluminescence dosimeter (TEP-TLD)  
Junshin Gakuen Univ. Yasuyuki Kawaji

- 0-151** Development of a low-cost radiation measurement equipment with a help of fluorescent screen used in medical diagnostics  
 The Wakasa Wan Energy Research Center Kyo Kume
- 0-152** Characterization of nanoDot OSL dosimeters for the high dose measurements  
 Kawasaki College of Allied Health Professions Naomasa Narihiro

**30. Radiometry/Spectrometry/Dosimetry 4** **16:10–17:00** **Moderator: Kyo Kume**

- 0-153** Microdosimetric consideration of the mechanism of enhanced biological effect by gold nanoparticles  
 Yokohama City Univ. Osamu Yamamoto
- 0-154** Development of a superheated bubble detector and its response to therapeutic ion beams  
 Tokyo Institute of Technology Yusuke Satake
- 0-155** TL dosimeter's glow curve dependence on LET and absorbed dose  
 Tokyo Metropolitan Univ. Keisuke Otsubo
- 0-156** The Study on dose distribution measurement of therapeutic carbon beam by Tissue Equivalent Phantom Thermoluminescence slab dosimeter (TEP-TLSD)  
 Chiba Univ. Satoshi Tamatsu
- 0-157** Improvement and Evaluation of a PMMA Multi-layer Ionization Chamber for Heavy Ion Radiotherapy  
 Chiba Univ. Soorim Han

## April 13(Sun) PACIFICO YOKOHAMA Conference Center 418

## 31. Radiation Therapy 6 (Heavy Particle) 9:10-10:10 Moderator: Masataka Komori

- 0-158** Development of dose measurement technique using multilayer ionization chamber for proton spot scanning  
Hitachi, Ltd., Hitachi Research Lab. Taisuke Takayanagi
- 0-159** Range shifter dependence in the radiation field-size effect of carbon beam  
Tooho Univ. Mari Shinozaki
- 0-160** Experience with SOI(Silicon on Insulator) pixel detector in proton beam field  
Ibaraki Prefectural Univ. of Health Science Hiraku Fuse
- 0-161** Development of Linear-Energy-Transfer-Independent Fricke Gel dosimeter using nano-clay  
RIKEN Takuya Maeyama
- 0-162** Range verification with polymer gel detector  
Hyogo Ion Beam Medical Center Yusuke Tsunei
- 0-163** Evaluation of the RADPOS 4-D in-vivo dosimetry system  
Univ. of Tsukuba Hidenori Yamaguchi

## 32. Radiation Therapy 7 (Heavy Particle) 10:20-11:30 Moderator: Naruhiro Matsufuji

- 0-164** A simulation study for respiratory gating proton irradiation with rapid raster scanning method  
Mitsubishi Electric Corporation Yusuke Sakamoto
- 0-165** Dose distribution in layer-stacking irradiation for a respiratory moving target  
Gunma Univ. Shinya Tajiri
- 0-166** A Study of Efficient Synchrotron operation for respiratory gated carbon ion therapy  
SAGA HIMAT-Heavy Ion Cancer Treatment Center Yoshikazu Tsunashima
- 0-167** Relative Biological Effectiveness of the 190 MeV Proton Beams at Aizawa Hospital Proton Therapy Center  
Aizawa Hosp. Yuya Sugama
- 0-168** Study of Physics Process in Biological Radiation Effect  
Rikkyou Univ. Takuma Horaguchi
- 0-169** Status of the Development of Acc-Based BNCT Irradiation System using Liquid Lithium Neutron Producing Target  
Kyoto Univ. Research Reactor Institute Tooru Kobayashi
- 0-170** Development of radiation-quality-evaluation phantom for BNCT  
Kyoto Univ. Research Reactor Institute Yoshinori Sakurai

**33. Radiometry/Spectrometry/Dosimetry 5** 9:00–10:00 Moderator: Tadahiro Kurosawa

- 0-171** Evaluation of precision external beam monitors  
AIST Morihito Shimizu
- 0-172** Measurement of beam quality correction factors by using the standard of absorbed dose to water in high-energy photon beams  
AIST Morihito Shimizu
- 0-173** Uncertainty of Dosimeter Calibration using Water Absorbed Dose by ANTM  
Association for Nuclear Technology in Medicine Suoh Sakata
- 0-174** High sensitive neutron-detection around a 10 MV clinical linac by the self-activation method with an NaI scintillator  
Kyushu Univ. Akihiro Nohtomi
- 0-175** A study on the influence of photonuclear reactions on the radiation quality of therapeutic high energy X-ray beam  
Tokyo Institute of Technology Akihisa Wakita
- 0-176** Development of radiation-resistant real-time neutron monitor for accelerator-based BNCT  
JAEA Takemi Nakamura

**34. Medical Information/Education** 10:10–10:50 Moderator: Hodaka Numasaki

- 0-177** Withdrawn
- 0-178** Computed Radiography (CR) picture examination of the cause of generating of black spots.  
Iwaki kyouritsu general Hosp. Yasuhiro Kashimura
- 0-179** Automation of linear accelerator user management of TMU  
Tokyo Metropolitan Univ. Eri Katou
- 0-180** Preliminary study on color micro optical-CT —Evaluation using biological sample—  
Fujita Health Univ. Chika Murata

**35. Image Informatics/Processing/Analysis** 11:00–11:50 Moderator: Hitoshi Iyatomi

- 0-181** Investigation of feasibility of sparse coding to search for similar cases in radiation treatment planning.  
Kyushu Univ. Misato Imai
- 0-182** A Study for the contrast enhancement of kV image for the prediction of lung tumor motion deformation using PCA  
Univ. of Tokyo Ritu Bhusal Chhatkuli
- 0-183** Fast image registration on parallel and distributed computers  
Teikyo Univ. Toru Ishibashi
- 0-184** Withdrawn
- 0-185** Withdrawn