
Program of the Meeting

CALENDAR OF EVENTS

* = Presenting Author

Saturday, March 05, 2016

Best Poster Competition

-Exhibit Hall

- PO-BPC-Exhibit Hall-01** Failure to Detect and Interlock An Out-Of-Tolerance Photon Beam Symmetry by a Linear Accelerator Monitor Chamber - N. Knutson *, N. Nguyen, M. Schmidt, M. Price
- PO-BPC-Exhibit Hall-02** Graphical User Interface for Digital Winston Lutz Test-Based Localization of Linac Radiation Isocenter and IGRT Image Centers - W. Du *
- PO-BPC-Exhibit Hall-03** Objective Assessment of Spine Phantom Using Various 3D Printers for Patient Specific QA in SBRT: A Feasibility Study - S. Lee, T. Suh *, M. Kim, M. Lee, S. Park, J. Song, J. Sohn
- PO-BPC-Exhibit Hall-04** SAVI Quality Assurance Using Failure Modes and Risk Analysis Methodology - H. Norris *, V. Gutti, G. Palaniswaamy
- PO-BPC-Exhibit Hall-05** Generating Nodule-Like Object Functions for CAD Performance Evaluation in Lung Cancer Screening: Feasibility Study - A. Narita *, M. Ohkubo, S. Wada
- PO-BPC-Exhibit Hall-06** Peripheral Dose Evaluation to the Thyroid and Contralateral Breast From Accubost Treatments - M. Talmadge *, P. Halvorsen, I. Iftimia
- PO-BPC-Exhibit Hall-07** Impact of Iterative Metal Artifact Reduction Algorithm On Scatter Contouring in Radiation Therapy Treatment Planning - S. Anderson *, D. Brinkmann
- PO-BPC-Exhibit Hall-08** Ion Chamber Internal Temperature Measurements and Simulations for Thermal Equilibration Times After Ambient Temperature Changes - D. Saenz *, N. Kirby, A. Gutierrez
- PO-BPC-Exhibit Hall-09** Absolute Film Dosimetry for Stereotactic Radiosurgery and Stereotactic Body Radiotherapy Quality Assurance Using Gafchromic EBT3 Films - S. Lu *, N. Wen, J. Kim, Y. Qin, Y. Huang, B. Zhao, I. Chetty
- PO-BPC-Exhibit Hall-10** Comparative Analysis of Dose Per KVp at Center and Periphery of the CTDI Phantoms in Major CT Manufacturer Models - R. Al-Senan *, O. Demirkaya
- PO-BPC-Exhibit Hall-11** Determination of Linear Mapping Factors to Convert Corrected EPID Pixel Values for Dynamic Plan QA with Portal Dosimetry and MOSAIQ - M. Schmidt *, n. Knutson, F. Liu, M. Price
- PO-BPC-Exhibit Hall-12** A Sensitivity Dosimetric Study of Setup Uncertainties During Machine Commission and Annual QA - V. Nguyen *, B. Wang, C. Shi
- PO-BPC-Exhibit Hall-13** Electromagnetic Interference Artifacts in Digital Radiography Caused by Left Ventricular Assist Devices (LVAD) - Z. Lu, K. Little *, I. Reiser, V. Kagan, A. Sanchez, H. MacMahon
- PO-BPC-Exhibit Hall-14** Effect of Grid Size On Optimization Using the MultiPlan Monte Carlo Algorithm - R. Krauss *, J. Tubbs
- PO-BPC-Exhibit Hall-15** Dosimetric Effect of Liver Motion for Scattering Proton Beam Therapy: A Proton Liver 4D Treatment Planning Strategy Study - Q. Huang *, M. Zhang, W. Zou, N. Yue
- PO-BPC-Exhibit Hall-16** Evaluation of Modified Newton Method Used for Inverting Non-Linear Transformations - P. Greer, J. Hatton, B. McCurdy, P. Siciarz *, C. Tang
- PO-BPC-Exhibit Hall-17** Quantification of the Dosimetric Impact of the Elekta IBEAM Evo Couchtop EP in Different Beam Energies - R. Zhang, Y. Gao, W. Bai *, X. Fan, Z. Chi
- PO-BPC-Exhibit Hall-18** Varian Surface Applicator Leakage Measurements - M. Talmadge *, P. Halvorsen, I. Iftimia
- PO-BPC-Exhibit Hall-19** Fade and Warm Up of MOSFET Dosimeters - D. Plenkovich *
- PO-BPC-Exhibit Hall-20** Application of Taguchi Methodology for Optimizing Parameters of Cone Beam CT for Optimal Image Quality - s. alani *, A. Schlocker, N. Honig, G. Elikhis, M. Levita
- PO-BPC-Exhibit Hall-21** Evaluation of Single Field Uniform Dose (SFUD) Proton Pencil Beam Scanning (PBS) Planning Strategy for Lung Tumor - G. Liu *, X. Li, D. Yan, H. Quan, X. Ding

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- PO-BPC-Exhibit Hall-22** Calibration and Comparison of Dosimetry Systems Used in the Therapeutic Soft X-Ray Energy Range - S. Sourti *, X. Qian, Y. Chen, A. Jamshidi
- PO-BPC-Exhibit Hall-23** Estimating Peak Skin Dose in the Cath Lab Using Gafchromic Film - A. Scott *, Y. Zhou, J. Nute, C. Lee, J. Allahverdian
- PO-BPC-Exhibit Hall-24** Setup Uncertainties in Locally Advanced Breast Cancer Patients Undergoing Regional Nodal Irradiation - Y. Zhang *, D. Brinkmann, R. Mutter, S. Park, E. Yan, D. Pafundi, N. Remmes

Professional Symposium - SAM

8:00 am - 10:00 am

-Grand Ballroom D

SA-A-BRD Ethics & Professionalism

Moderator: Michael Howard, Parkridge Medical Ctr, Chattanooga, TN

- 8:00 am **P. Dunscombe, The University of Calgary: Ethics: An Historical Perspective**
- 8:30 am **N. Bahar, Landauer Medical Physics: Ethical Issues in Medical Physics Education**
- 9:00 am **C. Serago, Mayo Clinic: Ethical Issues in Medical Physics Business**
- 9:30 am **N. Ozturk, The University of Chicago: Ethical Issues in Medical Physics Research**

Break in Exhibit Hall

10:00 am - 10:30 am

Young Investigator Symposium

10:30 am - 12:30 pm

-Grand Ballroom D

SA-B-BRD Young Investigator Clinical Symposium

Moderators: Jean Moran, Univ Michigan Medical Center, Ann Arbor, MI and Jeffrey Moirano, University of Washington, Seattle, WA

- 10:30 am **SA-B-BRD-01** A Novel Energy-Dependent Subtraction Method for Cardiac Imaging: Signal and Noise Analysis - C. Burton *, I. Cunningham
- 10:40 am **SA-B-BRD-02** Commissioning of 2D/3D Matching On a Varian TrueBeam - J. Dorand *, D. Ellerbusch, L. Fong de los Santos, J. Ma, D. Pafundi
- 10:50 am **SA-B-BRD-03** Comparability of Three Output Prediction Models for a Compact Passively Scattered Proton Therapy System - S. Ferguson *, Y. Chen, C. Ferreira, M. Islam, V. Keeling, A. Lau, S. Ahmad, H. Jin
- 11:00 am **SA-B-BRD-04** Effective and Efficient Grid Therapy Using High Dose Rate Flattening Filter Free Beam and Multileaf Collimator - M. Liu *, N. Wen, F. Siddiqui, I. Chetty, B. Zhao
- 11:10 am **SA-B-BRD-05** Evaluation of Electron Monte Carlo Dose Calculation of RayStation Treatment Planning System in Heterogeneous Media - S. Mossahebi *, M. Lin, S. Chen, H. Xu, M. Guerrero
- 11:20 am **SA-B-BRD-06** Improvement of Tumor Localization in Cone Beam CT Using An Optical Tracking System - B. Barraclough *, J. Li, C. Park, C. Liu, S. Lebron, G. Yan
- 11:30 am **SA-B-BRD-07** Improving Non-MCO VMAT Planning in RayStation for Prostate Treatment with An Automated Knowledge-Based Model Created Using a Database of Clinical MCO-IMRT Plans - M. Young *, L. Vanbenthuyssen, B. Crawford, Y. Wang

Saturday, March 05, 2016

- 11:40 am **SA-B-BRD-08 Initial Experience with Pinnacle3 Auto-Planning On Field Matching** - S. Wang *, D. Zheng, W. Zhen, Y. Lei, X. Zhu, X. Ni, C. Enke, S. Zhou
- 11:50 am **SA-B-BRD-09 Linear Accelerator Mechanical Quality Assurance Using a Calibrated Camera** - D. Robertson *
- 12:00 pm **SA-B-BRD-10 Monte Carlo Study of 3D Dose Distributions for COMS Eye Plaques** - J. Gloss *, C. Watchman
- 12:10 pm **SA-B-BRD-11 Unified Database for Rejected Image Analysis Across Multiple Vendors in Radiography** - K. Little *, L. Liu, K. Haas, A. Sanchez, I. Reiser, Z. Lu

Lunch Break in Exhibit Hall

12:30 pm - 2:00 pm

Therapy Symposium - SAM

2:00 pm - 4:00 pm

-Grand Ballroom D

SA-C-BRD QA Fundamentals: Applications of Multi-dimensional Arrays

Moderator: Kyle Antes, Presbyterian Healthcare System, Dallas, TX

- 2:00 pm **V. Feygelman, H. Lee Moffitt Cancer Center: Clinical Needs Driving Multi-Dimensional Systems**
- 2:40 pm **S. Stathakis, CTCRC at UTHSCSA: Leveraging Multi-Dimensional Systems for IMRT QA**
- 3:20 pm **T. Ritter, The University of Michigan: Leveraging Multi-Dimensional Systems for TG142**

Diagnostic Symposium - SAM

2:00 pm - 4:00 pm

-Grand Ballroom A

SA-C-BRA Clinical MR Safety

Moderator: Jeffrey Moirano, University of Washington, Seattle, WA

- 2:00 pm **M. Amurao, Columbia University: Background - Basis for MRI Safety Programs**
- 2:30 pm **D. Jordan, University Hospitals Case Medical Center: Model MRI Safety Program - The Case Western Reserve University Experience**
- 3:00 pm **H. Edmonson, Mayo Clinic College of Medicine: Model MRI Safety Program - The Mayo Clinic Experience**
- 3:30 pm **M. Amurao, Columbia University: Relevant Certifications for Medical Physicists**

Break in Exhibit Hall

4:00 pm - 4:30 pm

Therapy Symposium - SAM

4:30 pm - 5:30 pm

-Grand Ballroom D

SA-D-BRD Why Gamma Isn't Enough: Revisiting Our Criteria and Interpretation of IMRT QA Results

Moderator: Kyle Antes, Presbyterian Healthcare System, Dallas, TX

- 4:30 pm **D. Low, UCLA: Limitations of Gamma Analysis**
- 5:00 pm **J. O'Daniel, Duke University Medical Center: Digging Into Our Toolbox: A Non-Gamma Analysis Tools for IMRT**

Diagnostic Symposium - SAM

4:30 pm - 5:30 pm

-Grand Ballroom A

SA-D-BRA X-Ray Tube Design

Moderator: Jeffrey Moirano, University of Washington, Seattle, WA

Saturday, March 05, 2016

- 4:30 pm **R. Behling, Philips Medical Systems DMC GmbH: History and Future of the X-Ray Tube: Can We Do It Better?**

Welcome Reception - Oak Room

6:00 pm - 7:30 pm

Sunday, March 06, 2016

Therapy Symposium - SAM

8:00 am - 10:00 am

-Grand Ballroom D

SU-A-BRD Translating AAPM Task Group 100 Into Our Clinics

Moderator: Jean Moran, Univ Michigan Medical Center, Ann Arbor, MI

- 8:00 am **K. Smith, Mary Bird Perkins Cancer Center: Applying Risk Analysis Techniques to Routine QA**
- 9:00 am **T. Pawlicki, UCSD Medical Center: Applying Risk Analysis to High Risk Procedures**

Mammography Symposium - SAM

8:00 am - 10:00 am

-Grand Ballroom A

SU-A-BRA Digital Breast Tomosynthesis

Moderator: Jessica Clements, Kaiser Permanente, Los Angeles, CA

- 8:00 am **K. Hulme, The Cleveland Clinic: Unique Features of the Siemens Inspiration Digital Breast Tomosynthesis System**
- 9:00 am **T. Fisher, Therapy Physics, Inc.: Unique Features of the GE SenoClaire Tomosynthesis System**

Break in Exhibit Hall

10:00 am - 10:30 am

Professional Symposium - SAM

10:30 am - 12:30 pm

-Grand Ballroom D

SU-B-BRD Total Quality in Radiation Therapy

Moderator: Brent Parker, Univ Texas Medical Branch of Galveston, Galveston, TX

- 10:30 am **S. Hancock, Southeast Missouri Hospital: Strategies for Total Quality in Radiation Therapy - Part I**
- 11:30 am **U. Hancock, Dale and Hancock Center: Strategies for Total Quality in Radiation Therapy - Part II**

Diagnostic Symposium

10:30 am - 12:30 pm

-Grand Ballroom A

SU-B-BRA Diagnostic Updates and Information Session with The Joint Commission

Moderator: Dustin Gress, MD Anderson Cancer Center, Houston, TX

- 10:30 am **A. Browne, The Joint Commission: Experience and Path Forward After Year 1 of New Requirements**

Lunch Break in Exhibit Hall

12:30 pm - 2:00 pm

Sunday, March 06, 2016

Therapy Symposium

2:00 pm - 4:00 pm

-Grand Ballroom D

SU-C-BRD Putting It All Together – Practical Advice On Implementing TG100

Moderator: Jean Moran, Univ Michigan Medical Center, Ann Arbor, MI

- 2:00 pm T. Pawlicki, UCSD Medical Center: Putting It All Together - Practical Advice On Implementing TG100
- 2:40 pm P. Dunscombe, The University of Calgary: Putting It All Together - Practical Advice On Implementing TG100
- 3:20 pm D. Brown, University of California, San Diego: Putting It All Together - Practical Advice On Implementing TG100

Professional Symposium - SAM

2:00 pm - 4:00 pm

-Grand Ballroom A

SU-C-BRA Dollars and Sense: Are We Overshielding Imaging Facilities

Moderator: Matthew Meineke, Ohio State Univ, Columbus, OH

- 2:00 pm R. Marsh, University of Colorado School of Medicine: An Analysis of Shielding Design in Medical Imaging: Are We Overshielding? Part I
- 3:00 pm B. Murray, Ohio Medical Physics Consulting, LLC: An Analysis of Shielding Design in Medical Imaging: Are We Overshielding? Part II

Break in Exhibit Hall

4:00 pm - 4:30 pm

Therapy Symposium - SAM

4:30 pm - 5:30 pm

- Grand Ballroom D

SU-D-BRD The National Landscape of Radiation Therapy Safety Efforts

Moderator: Jean Moran, Univ Michigan Medical Center, Ann Arbor, MI

- 4:30 pm J. Johnson, UT MD Anderson Cancer Center: Improving Patient Safety: Contributions From the Work Group On Prevention of Errors in Radiation Oncology
- 5:00 pm G. Ezzell, Mayo Clinic Arizona: Report Card On RO-ILS: What Have We Learned?

Mammography Symposium - SAM

4:30 pm - 5:30 pm

-Grand Ballroom A

SU-D-BRA Stereotactic Breast Biopsy and Molecular Breast Imaging

Moderator: Jessica Clements, Kaiser Permanente, Los Angeles, CA

- 4:30 pm S. Kappadath, UT MD Anderson Cancer Center: Molecular Breast Imaging: History and Recent Developments

Monday, March 07, 2016

Therapy Symposium - SAM

8:00 am - 10:00 am

-Grand Ballroom D

MO-A-BRD Challenges in Electronic Recordkeeping

Moderator: Brian Wang, Univ Louisville, Louisville, KY

- 8:00 am J. Mechalakos, Memorial Sloan-Kettering Cancer Center: Overview of TG262 On Electronic Record Keeping & Clinical Experience with Aria
- 8:40 am B. Salter, University Utah: Clinical Experience with Mosaic for Electronic Record Keeping

Monday, March 07, 2016

- 9:20 am S. Dieterich, UC Davis Medical Center: Electronic Charting for Brachytherapy and NRC Regulations

Mammography Symposium - SAM

8:00 am - 10:00 am

-Grand Ballroom A

MO-A-BRA New Concepts in Breast Imaging

Moderator: Jessica Clements, Kaiser Permanente, Los Angeles, CA

- 8:00 am J. Boone, UC Davis Medical Center: Changing Perceptions and Updated Methods for Mammography Dosimetry - Part I
- 8:30 am A. Hernandez, University of California: Changing Perceptions and Updated Methods for Mammography Dosimetry - Part II
- 9:00 am J. Cord, Kaiser Permanente: Dense Breasts, Risk Stratification, DCIS Controversy & Genetic Based Risk Stratification - The Road to Customized Care

Break in Exhibit Hall

10:00 am - 10:30 am

Therapy Symposium - SAM

10:30 am - 12:30 pm

-Grand Ballroom D

MO-B-BRD Permanent Interstitial Brachytherapy for Prostate Cancer

Moderator: Brian Wang, Univ Louisville, Louisville, KY

- 10:30 am J. Tward, University of Utah: A Physician's Perspective and Experience
- 11:30 am V. Narayana, Providence Cancer Center: Using Task Group 137 to Prescribe and Report Dose

Diagnostic Symposium

10:30 am - 11:30 am

-Grand Ballroom A

MO-B-BRA Nuclear Medicine & PET

Moderator: Dustin Gress, MD Anderson Cancer Center, Houston, TX

- 10:30 am S. Schwarz, Washington Univ: PET Radiopharmaceuticals: Past, Present & Future

Diagnostic Symposium - SAM

11:30 am - 12:30 pm

-Grand Ballroom A

MO-B-BRA Nuclear Medicine & PET

Moderator: Dustin Gress, MD Anderson Cancer Center, Houston, TX

- 11:30 am S. Kappadath, UT MD Anderson Cancer Center: Gamma Camera and SPECT Basics & Performance

Lunch - On Your Own

12:30 pm - 2:00 pm

Professional Symposium

2:00 pm - 4:00 pm

-Grand Ballroom D

MO-C-BRD Regulatory Update

Moderator: Lynne Fairbent, AAPM, Alexandria, VA

- 2:00 pm R. Martin, AAPM: Behind the Doors: A Perspective on Medical Event Reporting
- 2:30 pm B. Finerfrock, Capital Associates, Inc.: Washington Health Policy Update – What's Next?
- 3:15 pm L. Fairbent, AAPM: Challenges in Complying with Regulations

Monday, March 07, 2016

Break in Exhibit Hall4:00 pm - 4:30 pm

Therapy Symposium - SAM4:30 pm - 5:30 pm

-Grand Ballroom D

MO-D-BRD Task Group 210: Linac Fundamentals of Conventional Linac Acceptance Testing

Moderator: Brian Wang, Univ Louisville, Louisville, KY

4:30 pm **D. Rangaraj, Baylor Scott & White Health: Task Group 210: Linac Fundamentals of Conventional Linac Acceptance Testing**

Diagnostic Symposium - SAM4:30 pm - 5:30 pm

-Room: Grand Ballroom A

MO-D-BRA RDIM Software Development and Use

Moderator: Dustin Gress, MD Anderson Cancer Center, Houston, TX

4:30 pm **J. Garrett, Mississippi Baptist Medical Center: RDIM Software From the Ground Up: Demystifying RDIM**

Tuesday, March 08, 2016

Therapy Symposium - SAM8:00 am - 10:00 am

-Grand Ballroom D

TU-A-BRD Commissioning & QA of Video-based Systems and other Tools for Motion Management

Moderator: Kyle Antes, Presbyterian Healthcare System, Dallas, TX

8:00 am **D. Shepard, Swedish Cancer Institute: Choosing and Commissioning a Video Based Motion Management System**8:40 am **H. Al-Hallaq, The University of Chicago: Clinical Implementation and On-Going QA of a Video-Based Motion Management System**9:20 am **S. Hadley, The University of Michigan: Clinical Use of Video-Based Motion Management: Where Are We Now and Where Can We Go?**

Diagnostic Symposium8:00 am - 9:00 am

-Grand Ballroom A

TU-A-BRA Medical Imaging Displays: Psychophysics and Quality Assurance

Moderator: Jeffrey Moirano, University of Washington, Seattle, WA

8:00 am **E. Krupinski, Emory Univ: Psychophysics and the Human Visual System**

Diagnostic Symposium - SAM9:00 am - 10:00 am

-Grand Ballroom A

TU-A-BRA Medical Imaging Displays: Psychophysics and Quality Assurance

Moderator: Jeffrey Moirano, University of Washington, Seattle, WA

9:00 am **M. Silosky, University of Colorado School of Medicine: Display Monitor Performance and Evaluation**

Break in Prefunction Area10:00 am - 10:30 am

Tuesday, March 08, 2016

Professional Symposium10:30 am - 12:30 pm

-Grand Ballroom D

TU-B-BRD Medical Physics Practice Guidelines MPPG #7

Moderator: Michael Howard, Parkridge Medical Ctr, Chattanooga, TN

10:30 am **J. Seibert, UC Davis Medical Center: QMP Supervision of Medical Physicist Assistants - Imaging**11:30 am **P. Halvorsen, Lahey Clinic: QMP Supervision of Medical Physicist Assistants - Therapy**
