
Program of the Meeting

CALENDAR OF EVENTS

* = Presenting Author

Saturday, March 18, 2017

Best Poster Competition

-Exhibit Hall

- PO-BPC-Exhibit Hall-01** Tuning of AcurosXB Source Size Setting for VMAT Planning with Small Intracranial Targets - S. Gardner*, S. Lu, C. Liu, N. Wen, I. Chetty
- PO-BPC-Exhibit Hall-02** Initial Experience with Dose Monitoring Software: Determination of Optimal Dose Monitoring Metrics and Investigation Strategies - J. Nute*, Y. Zhou
- PO-BPC-Exhibit Hall-03** Evaluation of Plan Metrics Between Cyberknife and Volumetric Arc Therapy (Rapid-Arc) for Multiple Cranial Metastases Radiosurgery - A. Koletowo*, R. Selvaraj, S. Kirkpatrick, S. Oliveira
- PO-BPC-Exhibit Hall-04** Should We Utilize Tube Current Modulation in Head CT Exams? An Assessment of Image Quality and Direct Dosimetry with OSLDs - I. Barreto*, C. Carranza, N. Quails, N. Correa, D. Rajderkar, L. Rill, M. Arreola
- PO-BPC-Exhibit Hall-05** Feasibility Study of CBCT On a Linac for Vaginal Cylinder HDR Brachytherapy Simulation - M. Ashenafi*, C. Mart, J. Peng, L. Cooper, K. Vanek
- PO-BPC-Exhibit Hall-06** Incorporating Patient-Specific CT-Based Ophthalmic Anatomy in Modeling I-125 Eye Plaque Radiotherapy Dose Distributions - C. Tien*, M. Astrahan, Z. Chen, R. Nath, W. Liu
- PO-BPC-Exhibit Hall-07** Evaluation of Dosimetric Impact of Electron Return Effect in MR LINAC On Pediatric Patients - E. Han*, J. Shin, Z. Wen, C. Lee
- PO-BPC-Exhibit Hall-08** Positioning Uncertainty of Shielding Plates Used During Intraoperative Breast Radiotherapy - D. Parrott, J. Harris*, J. Reiland, X. Kong, F. Liu, D. Spitznagel
- PO-BPC-Exhibit Hall-09** A Dose Assessment Summary for Participants in the National Lung Screening Trial Receiving PA Chest X-Ray and Low-Dose CT Examinations - R. Kruger*, C. Lee
- PO-BPC-Exhibit Hall-10** Experimental Verification of Eclipse AAA and Acuros Lung Dose Calculations - S. Shiraishi*, M. Grams, J. Antolak, S. Park, K. Olivier, Y. Garces, L. Fong de los Santos
- PO-BPC-Exhibit Hall-11** Assessment of Build-Up with Different Bolus Methods - N. Hariharan*, N. Hopkins, P. Halvorsen
- PO-BPC-Exhibit Hall-12** Independent and Direct Absolute Dosimetric Validation for Portal Dose Prediction Algorithm Used in Portal Dosimetry - T. Li*, W. Byant, L. Fountain, E. Duffy
- PO-BPC-Exhibit Hall-13** Effect of Dose Grid Position in VMAT Optimization Using Varian Photon Optimizer (PO) Versus Varian Progressive Resolution Optimizer (PRO) - H. Norris*, A. Morrow
- PO-BPC-Exhibit Hall-14** Optimization of Dosimetric Leaf Gap and Multi-Leaf Collimator Transmission Values - N. Knutson*, R. Morris, F. Reynoso, M. Schmidt, B. McClain, M. Reilly, R. Kashani
- PO-BPC-Exhibit Hall-15** Clinical Review and Comparison of Quality Assurance Using Dynalog Analysis and Portal Dosimetry - J. Monroe*, E. Caspari
- PO-BPC-Exhibit Hall-16** Does Intensity Modulation Increase Heterogeneity-Induced Dose Calculation Error Over Conformal Treatments for Lung SBRT? - D. Zheng*
- PO-BPC-Exhibit Hall-17** Investigation of a Source Model for Use with a New Electronic Brachytherapy Tandem by Film Measurement - E. Martin*, K. Sowards, B. Wang
- PO-BPC-Exhibit Hall-18** On the Validity of Lung Target Volume Delineation - D. Mohatt*, H. Malhotra
- PO-BPC-Exhibit Hall-19** A Comprehensive Clinical Study On Switching From Type-B to Type-C Dose Algorithms for Modern Lung SBRT - C. Zhou*, N. Bennion, R. Ma, X. Liang, S. Wang, K. Zvolanek, M. Hyun, S. Zhou, W. Zhen, C. Lin, A. Wahl, D. Zheng
- PO-BPC-Exhibit Hall-20** Adapting High-Definition MLC VMAT Plans to the Millennium MLC for Single-Fraction Treatment Without Re-Optimization - S. French*, M. Podgorsak, S. Bhagroo, J. Zielan, D. Nazareth

Saturday, March 18, 2017

- PO-BPC-Exhibit Hall-21** A Practical Quality Assurance Method for Radiotherapy Treatment Planning - X. Li*, B. Ebrahimi, Y. Yang
- PO-BPC-Exhibit Hall-22** Brachytherapy Applicator Commissioning and Clinical Implementation Using TG100 Safety Strategies - J. Faught*, L. Schubert
- PO-BPC-Exhibit Hall-23** Transitioning to Thickness-Based Protocols in Pediatric Abdomen Radiography - A. Sanchez*, I. Reiser, Y. Zhang, J. Finkle, Z. Lu, K. Feinstein
- PO-BPC-Exhibit Hall-24** Feasibility of Using the Automated Beam Gating Interface with the Active Breathing Coordinate for Hypofractionated Radiation Therapy - S. Lee*, Y. Zheng, T. Podder, J. Sohn
- PO-BPC-Exhibit Hall-25** Evaluating the Influence of the Treatment Couch in VMAT by CERR - R. Zhang, W. Bai*, Y. Feng

Professional Symposium

8:00 am - 10:00 am

-Ballroom A|B

SA-A-BRA|B Medical Physics Leadership

Moderator: Jennifer Lynn Johnson, UT MD Anderson Cancer Center, Houston, TX

8:00 am M. Howard, Parkridge Medical Ctr: Healthcare Finance

9:00 am P. Halvorsen, Lahey Health and Medical Center: Financial Fundamentals: Advocating for Your Needs

Break in Exhibit Hall

10:00 am - 10:30 am

Young Investigator Symposium

10:30 am - 12:30 pm

-Ballroom A|B

SA-B-BRA|B Young Investigator Clinical Symposium

Moderators: Austin Hadley, Mayo Clinic, Jacksonville, FL and Jeffrey Moirano, University of Washington, Seattle, WA

10:30 am **SA-B-BRA|B-01** Independent Evaluation of the Stability of CBCT-Defined Stereotactic Space in Gamma Knife Icon - I. AlDahlawi*, D. Prasad, M. Podgorsak

10:40 am **SA-B-BRA|B-02** Optimizing Dose Reduction in Pediatric Head CT Protocols While Maintaining Image Quality in Postmortem Head Scans - I. Barreto*, N. Quails, C. Carranza, N. Correa, D. Rajderkar, L. Rill, M. Arreola

10:50 am **SA-B-BRA|B-03** Determination of LDRBT Prostate Seed Location Using An Endorectal X-Ray Sensor - J. Steiner*, K. Matthews, G. Jia

11:00 am **SA-B-BRA|B-04** GPU-Accelerated High Performance Computing Framework for IMPT Multi-Criterion Optimization - C. Beltran, H. Kamal Sayed*, M. Herman

11:10 am **SA-B-BRA|B-05** A Novel Quality Control Test for Gantry Angle Accuracy in Respiratory-Gated VMAT Treatments - E. Hubley*, M. Briscoe, N. Ploquin, G. Pierce

11:20 am **SA-B-BRA|B-06** Spatial Dose Surface Map Visualization for Hollow Organ Dose Evaluation - A. Witztum*, B. George, M. Partridge, F. Van den Heuvel, M. Hawkins

11:30 am **SA-B-BRA|B-07** An Improved Distance-To-Dose Correlation for Predicting Bladder and Rectum Dose-Volumes in Knowledge-Based VMAT Planning for Prostate Cancer - P. Wall*, J. Fontenot, R. Carver

11:40 am **SA-B-BRA|B-08** Potential Implications of CT-To-Density Relationships On Dose Calculations - S. Mossahebi*, M. Guerrero, K. Prado, K. Langen, B. Yi, S. Chen

Saturday, March 18, 2017

- 11:50 am **SA-B-BRA|B-09 Characterization and Validation of Optically Stimulated Luminescent Dosimeters for In-Vivo Surface Dosimetry of HDR Breast Brachytherapy Treatments** - J. Van Schelt*, L. Young, L. Wootton, J. Meyer, C. Dempsey
- 12:00 pm **SA-B-BRA|B-10 Closing the Quality Management Loop with An Automated Plan Check That Draws From An Incident Reporting System** - B. Neal*, J. Nasehi Tehrani, J. Siebers
- 12:10 pm **SA-B-BRA|B-11 Pre-Clinical Investigation of MARS Spectral Molecular Imaging for Use in Bone Quality Assessment** - C. Leary*, T. Griglock, K. Tack, N. Anderson, M. Ramyar, R. Aamir
- 12:20 pm **SA-B-BRA|B-12 Reducing Seed Waste and Increasing Value of Dynamic Intraoperative Implantation of Pd-103 Seeds in Prostate Brachytherapy** - P. Taylor*, A. Riegel

Lunch Break

12:30 pm - 2:00 pm

Therapy Symposium - SAM

2:00 pm - 4:00 pm

-Ballroom A|B

SA-C-BRA|B Building a New Radiation Therapy Clinic: Wait, Where Do I Start? - Part I

Moderator: Annie Hsu, Stanford Cancer Center, Stanford, CA

2:00 pm **M. Martin, Therapy Physics, Inc.: Shielding Trends in Radiation Therapy**3:00 pm **G. Sherouse, Landauer Medical Physics : Commissioning a Linac Today****Diagnostic Symposium - SAM**

2:00 pm - 4:00 pm

-Ballroom C

SA-C-BRC Protocol Review and Optimization

Moderator: William Sensakovic, Florida Hospital, Orlando, FL

2:00 pm **K. Strauss, Children's Hospital Medical Center: Optimization of Pediatric DR**2:40 pm **A. Panda, Mayo Clinic, Arizona: MR Protocol Review**3:20 pm **D. Gauntt, UAB Medical Center: CT Protocol Review - Validation and Verification****Break in Exhibit Hall**

4:00 pm - 4:30 pm

Therapy Symposium - SAM

4:30 pm - 5:30 pm

-Ballroom A|B

SA-D-BRA|B Building a New Radiation Therapy Clinic: Wait, Where Do I Start? - Part II

Moderator: Annie Hsu, Stanford Cancer Center, Stanford, CA

4:30 pm **K. Prado, University of Maryland School of Medicine: How to Open a New Radiation Oncology Center****Diagnostic Symposium - SAM**

4:30 pm - 5:30 pm

-Ballroom C

SA-D-BRC Nuclear Medicine TG177 Update

Moderator: William Sensakovic, Florida Hospital, Orlando, FL

4:30 pm **J. Halama, Loyola University Medical Center: An Update on TG177****Sunday, March 19, 2017****Therapy Symposium - SAM**

8:00 am - 10:00 am

-Ballroom A|B

SU-A-BRA|B You Too Can Create Great Incident Reports!

Moderator: Jennifer Lynn Johnson, UT MD Anderson Cancer Center, Houston, TX

8:00 am **B. Miller, Henry Ford Health System: An Overview of Incident Reporting**8:40 am **B. Thomadsen, University of Wisconsin: Essential Elements of Incident Narratives**9:20 am **J. Palta, Virginia Commonwealth University: Standardizing Incident Reporting in the VA Medical System****Mammography Symposium - SAM**

8:00 am - 10:00 am

-Ballroom C

SU-A-BRC Clinical Trends in Breast Imaging

Moderator: Nicole Ranger, Aspirus Wausau Hospital, Wausau, WI

8:00 am **C. Hruska, Mayo Clinic: From Detection to Prediction: Imaging Markers of Breast Cancer Risk**9:00 am **A. Kerger, The Ohio State University: A Clinical Perspective On DBT-Guided Stereotactic Breast Biopsy****Break in Exhibit Hall**

10:00 am - 10:30 am

Professional Symposium - SAM

10:30 am - 12:30 pm

-Ballroom A|B

SU-B-BRA|B TG275 and Radiation Professional Workforces

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

10:30 am **D. Schofield, Saint Vincent Hospital: TG275**10:50 am **P. Johnson, University of Miami: Review of Current Trends in the Physics Chart Check Process: Results from the TG275 Survey of Practices**11:10 am **L. Fong de los Santos, Mayo Clinic: Review of Current Trends in the Physics Chart Check Process: Results from the TG275 Survey of Practices**11:30 am **W. Newhauser, Louisiana State University: Radiation Professional Workforces (Therapy)**12:00 pm **D. Gress, MD Anderson Cancer Center: The Path to Assessing Diagnostic Workforce****Diagnostic Symposium - SAM**

10:30 am - 12:30 pm

-Ballroom C

SU-B-BRC Exposure Indices and Target Values in Radiography: What Are They and How Can You Use Them?

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

10:30 am **I. Reiser, The University of Chicago: Definition and Validation of Exposure Indices**11:10 am **A. Walz-Flannigan, Mayo Clinic: Clinical Utilization Strategies and Challenges**11:50 am **C. Willis, MD Anderson Cancer Center: Rethinking Action Limits Based On Findings of TG151 Multi-site Survey****Lunch Break**

12:30 pm - 2:00 pm

Sunday, March 19, 2017**Therapy Symposium**

2:00 pm - 4:00 pm

-Ballroom A|B

SU-C-BRA|B Hands-On Workshop: Using Incidents to Improve Patient Care

Moderator: Brett Miller, Henry Ford Health System, Clinton Township, AA

G. Kim, University of California, San Diego: Using Root Cause Analysis When Analyzing Incidents

J. Johnson, UT MD Anderson Cancer Center: Classification of Incidents

L. Schubert, Univ. of Colorado Denver: Developing a Corrective Action Plan

Professional Symposium

2:00 pm - 4:00 pm

-Ballroom C

SU-C-BRC ABR MOC Update / Networking

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

2:00 pm G. Frey, The American Board of Radiology: Changes in the ABR MOC Program

2:30 pm G. Ibbott, UT MD Anderson Cancer Center: Changes in the ABR MOC Program

3:00 pm M. Meineke, Ohio State University: Professional Networking (and We Don't Mean Ethernet!)

Break in Exhibit Hall

4:00 pm - 4:30 pm

Therapy Symposium - SAM

4:30 pm - 5:30 pm

-Ballroom A|B

SU-D-BRA|B Buyer Beware: Quality Assurance of Outsourced Products

Moderator: Kyle Antes, Texas Oncology, PA, Dallas, TX

4:30 pm J. Gibbons, Ochsner Health System: Quality Assurance of Outsourced Beam Modulators and Physics Work

5:00 pm R. Kudchadker, UT MD Anderson Cancer Center: Quality Assurance of Outsourced Brachytherapy Loading and Treatment Planning

Mammography Symposium - SAM

4:30 pm - 5:30 pm

-Ballroom C

SU-D-BRC FFDM Accreditation

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

4:30 pm D. Pfeiffer, Boulder Community Health: Everything You Need to Know About the New ACR FFDM Manual

Monday, March 20, 2017**Therapy Symposium - SAM**

8:00 am - 10:00 am

-Ballroom A|B

MO-A-BRA|B Evolution of Treatment Plan Checks and Pre-treatment QA

Moderator: Kyle Antes, Texas Oncology, PA, Dallas, TX

8:00 am S. Parker, Novant Health: TG275 and Beyond: Plan Checks in the Modern Age

8:40 am S. Stathakis, Cancer Therapy and Research Center: TG219: It's Use, Strengths and Weaknesses

9:20 am M. Miften, University of Colorado School of Medicine: TG218: How to Handle Pretreatment QA

Monday, March 20, 2017**Mammography Symposium - SAM**

8:00 am - 9:00 am

-Ballroom C

MO-A-BRC Breast Ultrasound

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

8:00 am W. Lee, GE Healthcare: Automated Breast Ultrasound System (ABUS)

9:00 am - 10:00 am

-Ballroom C

MO-A-BRC Breast and General US Accreditation

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

9:00 am D. Hohreiter, Kaiser Permanente: Setting Up A New US QC Program

Break in Exhibit Hall

10:00 am - 10:30 am

Therapy Symposium - SAM

10:30 am - 12:30 pm

-Ballroom A|B

MO-B-BRA|B Big Data: How Standardizing RT Nomenclature Can Be Your Friend

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

10:30 am J. Moran, University Michigan Medical Center: TG 263: The Benefits of Standardizing Radiation Therapy Nomenclature

11:10 am C. Fuller, MD Anderson Cancer Center: A Physician's Perspective on Implementing Standard Nomenclature

11:50 am J. Palta, Virginia Commonwealth University: Opportunities to use Standard RT Nomenclature to Improve Care in the VA Health System

Diagnostic Symposium - SAM

10:30 am - 12:30 pm

-Ballroom C

MO-B-BRC Current Issues in CT Imaging

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

10:30 am C. Dillon, Alliance Medical Physics: Updates to the ACR CT Manual

11:10 am J. Anderson, UT Southwestern Medical Ctr at Dallas: Practical Dosimetry of Cone-beam Geometry CT Scanners

11:50 am D. Beaulieu, Boston Children's Hospital: Dual-Energy CT: The Many Technologies and Implementations and What They Mean for Physicists

Lunch - On Your Own

12:30 pm - 2:00 pm

Professional Symposium

2:00 pm - 4:00 pm

-Ballroom A|B

MO-C-BRA|B Regulatory Update

Moderator: Richard Martin, AAPM, Alexandria, VA

2:00 pm M. Reiter, Capitol Associates, Inc.: What Does the New Legislative Year Look Like?

2:30 pm J. Elee, LA Dept of Environmental Qual: Nuclear Medicine Inspections- What Problems Do We Find and Why?

3:00 pm D. White, U.S. Nuclear Regulatory Commission: NRC Re-Evaluation of Category 3 Source Security and Accountability

3:30 pm R. Martin, AAPM: Are Radioactive Materials Secure?

Monday, March 20, 2017

Break in Exhibit Hall

4:00 pm - 4:30 pm

Therapy Symposium - SAM

4:30 pm - 5:30 pm

-Ballroom A|B

MO-D-BRA|B Radiobiology for Hypofractionation: Basics for Clinical Physicists

Moderator: Annie Hsu, Stanford Cancer Center, Stanford, CA

4:30 pm E. Yorke, Memorial Sloan-Kettering Cancer Center: Hypofractionated Radiation Therapy: Can Clinical Data Further Improve the Therapeutic Ratio?

4:50 pm P. Medin, UT Southwestern Medical Ctr at Dallas: The Tolerance of the Nervous System to SBRT: Dogma, Data and Recommendations

5:10 pm D. Carlson, Yale Univ. School of Medicine: Clinical Outcomes Modeling and Molecular Imaging for Hypofractionated Radiotherapy

Diagnostic Symposium - SAM

4:30 pm - 5:30 pm

-Ballroom C

MO-D-BRC Dental Imaging: TG175 Report

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

4:30 pm A. Kwan, : TG175 Overview and Best Practices

Tuesday, March 21, 2017

Therapy Symposium - SAM

8:00 am - 10:00 am

-Ballroom A|B

TU-A-BRA|B Emerging Technology: Real-time Monitoring of Treatment Delivery

Moderator: Kyle Antes, Texas Oncology, PA, Dallas, TX

8:00 am A. Olch, University of Southern California and Childrens Hospital of Los Angeles: EPID Exit Dose QA

9:00 am S. Dieterich, UC Davis Medical Center: Real Time Patient Monitoring

Diagnostic Symposium - SAM

8:00 am - 10:00 am

-Ballroom C

TU-A-BRC Current Topics in MR Imaging

Moderator: William Sensakovic, Florida Hospital, Orlando, FL

8:00 am J. Och, Geisinger Medical Center: Imaging Implants

8:40 am N. Yanasak, Georgia Regents University: Artifacts and Mitigation

9:20 am R. Muthupillai, Baylor St. Luke's Medical Center: Myocardial Viability Imaging

Break in Grand Ballroom Foyer

10:00 am - 10:30 am

Professional Symposium - SAM

10:30 am - 12:30 pm

-Ballroom A|B

TU-B-BRA|B Radiation Safety Officers Review

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

10:30 am S. Marsh, Baystate Health Systems, Inc.: Medical Radiation Safety Officers Review

11:30 am D. Pavord, Health Quest: But I Already Have A Full-Time Job! A Therapy Physicist As Radiation Safety Officer
