RSNA® 2019
DECEMBER 1–6

Physics and Basic Science

RADIOLOGICAL SOCIETY OF NORTH AMERICA
105TH Scientific Assembly and Annual Meeting

Meeting.RSNA.org
#RSNA19

Accreditation and Designation Statements

The Radiological Society of North America (RSNA®) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The RSNA designates this live activity for a maximum of 94.00 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Commission on Accreditation of Medical Physics Education Program (CAMPEP) has approved the direct transfer of *AMA PRA Category 1 Credit*™ to MPCEC on a credit-for-credit basis for medical physicists.

Corporate Symposium

Please refer to each course description in the online program to determine if CME credit is offered for the session. Instructions on claiming credit will be provided during the course. CME credit for the Corporate Symposiums will be provided through a third-party provider and not through RSNA.

Program information is subject to change. For the most up-to-date information, please use your Meeting App or visit *Meeting.RSNA.org*.

Walk Through the Week

Saturday, Nov. 30, 2019

12:00–2:00 PM

Educational Courses
AAPM/RSNA Physics Tutorial Session 1
Session SPPH01 . . . . . **E351**

2:15–4:15 PM

Educational Courses
AAPM/RSNA Physics Tutorial Session 2
Session SPPH02 . . . . . **E351**

Sunday, Dec. 1, 2019

Case of the Day
Physics Sunday Case of the Day
Session ED013-SU . . . . . **Case of Day, Learning Center**

10:45 AM–12:15 PM

Scientific Papers Sessions
Physics (Radiation Dose - Radiography/Fluoroscopy)
Session SSA20 . . . . . **E351**

Physics (CT New Techniques/Systems)
Session SSA21 . . . . . **E353B**

Physics (MRI - New Techniques and Image Quality)
Session SSA22 . . . . . **E353A**

12:30–1:00 PM

Posters and Exhibits: Discussions
Physics Sunday Poster Discussions
Session PHS-SUA . . . . . **PH Community, Learning Center**

1:00–1:30 PM

Posters and Exhibits: Discussions
Physics Sunday Poster Discussions
Session PHS-SUB . . . . . **PH Community, Learning Center**

2:00–3:30 PM

Educational Courses
Innovations in Hybrid Imaging
Course RC121 . . . . . **E351**

Dual Energy CT for Radiotherapy Applications
Course RC122 . . . . . **S504AB**

Making Patients and Staff Safer in Interventional Procedures
Course RC123 . . . . . **E353A**

Quantitative Imaging: Promise and Challenges
Course RC125 . . . . . **S404AB**

Monday, Dec. 2, 2019

Case of the Day
Physics Monday Case of the Day
Session ED013-MO . . . . . **Case of Day, Learning Center**

8:30–10:00 AM

Educational Courses
Innovations in Cone-beam CT
Course RC221 . . . . . **E352**

Advanced PET Imaging for Radiotherapy Planning and Response Assessment
Course RC222 . . . . . **N229**

ACR Accreditation Updates I
Course RC223 . . . . . **S502AB**

Quantitative Imaging: Image Modality Specific Issues
Course RC225 . . . . . **S504AB**

Core Cybersecurity for Imaging Departments and Imagers: Threats, Vulnerabilities and Best Practices
Course RCC21 . . . . . **S404CD**

10:30 AM–12:00 PM

Scientific Papers Sessions
Physics (CT Radiation Dose)
Session SSC12 . . . . . **S504AB**

Physics (Breast X-Ray Imaging)
Session SSC13 . . . . . **S503AB**

12:15–12:45 PM

Posters and Exhibits: Discussions
Physics Monday Poster Discussions
Session PHS-MOA . . . . **PH Community, Learning Center**

12:45–1:15 PM

Posters and Exhibits: Discussions
Physics Monday Poster Discussions
Session PHS-MOB . . . . **PH Community, Learning Center**

1:30–2:45 PM

Educational Courses
Basic Physics Lecture for the RT: Radiation Safety Refresher Course
Session SPPH21 . . . . . **S402AB**

1:30–5:45 PM

Educational Courses
Physics Symposium: Highlights of AAPM Clinical Brachytherapy Physics Summer School
Session SPPH22 . . . . . **S503AB**

3:00–4:00 PM

Scientific Papers Sessions
Physics (Ultrasound)
Session SSE22 . . . . . **E352**

Physics (Nuclear Medicine)
Session SSE23 . . . . . **E351**

Physics (Deep Learning - X-Ray Scatter Correction and Denoising)
Session SSE24 . . . . . **S104A**

Tuesday, Dec. 3, 2019

Case of the Day
Physics Tuesday Case of the Day
Session ED013-TU . . . . . **Case of Day, Learning Center**

7:15–8:15 AM

Educational Courses
Houston, We Have a Problem (Case-based Competition)
Session SPDL30 . . . . . **E451B**

8:30–10:00 AM

Educational Courses
Innovations in MR
Course RC321 . . . . . **S102CD**

Advances in Cone Beam CT Acquisition and Reconstruction in Radiotherapy
Course RC322 . . . . . **S503AB**

Advanced Ultrasound Technology and Applications
Course RC323 . . . . . **S104B**

Quantitative Imaging: Modality Independent Issues
Course RC325 . . . . . **S403B**

10:30 AM–12:00 PM

Plenary Sessions
Tuesday Morning Plenary Session
Session PS31 . . . . . **E451B**

10:30 AM–12:00 PM

Scientific Papers Sessions
Physics (CT Image Quality)
Session SSG12 . . . . . **S501ABC**

Physics (Deep Learning - Clinical Applications)
Session SSG13 . . . . . **S502AB**

Physics (MRI - Clinical Applications)
Session SSG14 . . . . . **S504AB**

12:15–12:45 PM

Posters and Exhibits: Discussions
Physics Tuesday Poster Discussions
Session PHS-TUA . . . . . **PH Community, Learning Center**

12:45–1:15 PM

Posters and Exhibits: Discussions
Physics Tuesday Poster Discussions
Session PHS-TUB . . . . . **PH Community, Learning Center**

3:00–4:00 PM

Scientific Papers Sessions
Physics (Diagnostic X-Ray Imaging)
Session SSJ21 . . . . . **N228**

Physics (Photon Counting Detector CT)
Session SSJ22 . . . . . **N226**

Physics (CAD/Machine Learning, Quantitative Imaging)
Session SSJ23 . . . . . **N229**

4:30–6:00 PM

Educational Courses
Innovations in Dual- and Multi-energy CT
Course RC421 . . . . . **S102CD**

Anatomical MR Imaging for Radiotherapy Planning and Guidance
Course RC422 . . . . . **S501ABC**

Evolving Perspectives on Ultrasound Safety
Course RC423 . . . . . **E353A**

Quantitative Imaging: Statistical Analysis/Metrology Issues
Course RC425 . . . . . **S502AB**

Wednesday, Dec. 4, 2019

Case of the Day
Physics Wednesday Case of the Day
Session ED013-WE . . . . . **Case of Day, Learning Center**

8:30–10:00 AM

Educational Courses
Practical Aspects of MR
Course RC521 . . . . . **E351**

Machine Learning for Radiotherapy Applications
Course RC522 . . . . . **E352**

ACR Accreditation Updates II
Course RC523 . . . . . **S502AB**

Radiomics: Promise and Challenges
Course RC525 . . . . . **S102CD**

10:30 AM–12:00 PM

Scientific Papers Sessions
Physics (CT Protocols/Risk Reduction)
Session SSK18 . . . . . **E353C**

Physics (Dark-Field/X-Ray Phase Contrast Imaging)
Session SSK19 . . . . . **E353B**

12:15–12:45 PM

Posters and Exhibits: Discussions
Physics Wednesday Poster Discussions
Session PHS-WEA . . . . **PH Community, Learning Center**

12:45–1:15 PM

Posters and Exhibits: Discussions
Physics Wednesday Poster Discussions
Session PHS-WEB . . . . **PH Community, Learning Center**

3:00–4:00 PM

Scientific Papers Sessions
Physics (Radiation Therapy/Outcome Modeling/Image Processing)
Session SSM23 . . . . . **S102CD**

Thursday, Dec. 5, 2019

Case of the Day
Physics Thursday Case of the Day
Session ED013-TH . . . . . **Case of Day, Learning Center**

8:30–10:00 AM

Educational Courses
Innovations in Medical Imaging Physics with Deep Learning
Course RC621 . . . . . **E353B**

Functional MR Imaging for Tumor Targeting in Radiotherapy
Course RC622 . . . . . **E353A**

Optimization and Technology in Interventional Radiology
Course RC623 . . . . . **S503AB**

Radiomics: Informatics Tools and Databases
Course RC625 . . . . . **E352**

10:30 AM–12:00 PM

Scientific Papers Sessions
Physics (Dual Energy/Spectral CT)
Session SSQ18 . . . . . **E353A**

Physics (Deep Learning - Dose Reduction and Image Quality)
Session SSQ19 . . . . . **E353B**

12:15–12:45 PM
Posters and Exhibits: Discussions
Physics Thursday Poster Discussions
Session PHS-THA . . . . . **PH Community, Learning Center**

12:45–1:15 PM
Posters and Exhibits: Discussions
Physics Thursday Poster Discussions
Session PHS-THB . . . . . **PH Community, Learning Center**

4:30–6:00 PM
Educational Courses
Innovations in MR and CT Perfusion
Course RC721 . . . . . **S103AB**

Functional MR Imaging for Normal Tissue Response Assessment in Radiotherapy
Course RC722 . . . . . **S503AB**

CT Radiation Dose Reduction: Techniques and Clinical Implementation
Course RC723 . . . . . **S504AB**

Radiomics: Oncologic Applications
Course RC725 . . . . . **N226**

Friday, Dec. 6, 2019

8:30–10:00 AM
Educational Courses
Radiomics: From Image to Radiomics
Course RC825 . . . . . **E350**

10:30 AM–12:00 PM
Scientific Papers Sessions
Physics (CT - Artifact Reduction)
Session SST09 . . . . . **E351**

Posters and Exhibits Discussions

(CME is available when the author is present for discussion during the lunch period)

Sunday, Dec. 1, 2019

12:30–1:00 PM
Scientific Posters
An Experimental Study of MRI - Induced Heating in Conductive Loops
PH236-SD-SUA2 . . . . . **Station #2**

High-Resolution Knee Arthrography Using Photon-Counting Detector CT for Grading Osteoarthritis
PH238-SD-SUA4 . . . . . **Station #4**

Image Quality Evaluation Using a New Low-Dose Fluoroscopy Algorithm Based on a Deep-Learning Approach
PH237-SD-SUA3 . . . . . **Station #3**

Impact of Deep-Learning Reconstruction Compared to Iterative Reconstruction: First Use in Cardiac CT in a Stroke Protocol
PH203-SD-SUA1 . . . . . **Station #1**

Point-of-Care Cone-Beam CT of Head Injury: Diagnostic Performance Evaluation
PH204-SD-SUA6 . . . . . **Station #6**

Training a U-Net Deep Learning Network for Tumor Cell Detection and Segmentation in Pathologic Images Using Incomplete Annotation
PH205-SD-SUA5 . . . . . **Station #5**

12:30–1:00 PM
Education Exhibits
An Update on Multienergy CT: Physics, Principles and Applications
PH126-ED-SUA7 . . . . . **Station #7**

Phantom Study of Prone Breast PET/CT Targeted Towards Improving Clinical Applications
PH003-EB-SUA . . . . . **Hardcopy Backboard**

Reliability Assessment of CT-based Texture Analysis Metrics
PH139-ED-SUA8 . . . . . **Station #8**

The Study of the Effect Factors of Radiation Field in Wide-Detector CT
PH008-EC-SUA . . . . . **Custom Application Computer Demonstration**

1:00–1:30 PM

Scientific Posters

Comparing 3D MSK-View with 2D Standard Scans: Shortening Imaging Time of the Shoulder MRI Study - A Clinical Quality Feasibility Study
PH240-SD-SUB4 . . . . . **Station #4**

Patient-Informed and Physiology-Based Modelling of Hepatic Contrast Dynamics in Contrast-Enhanced CT Imaging
PH201-SD-SUB2. . . . . **Station #2**

Quantitative Evaluation of Bone Microstructure on a Novel Ultra-High Resolution Whole-Body CT
PH241-SD-SUB5. . . . . **Station #5**

Radiation Dose Exposure During Pelvic Angiography and Intervention: What Can Be Done to Minimize Risk
PH239-SD-SUB3 . . . . . **Station #3**

Super-Resolution Blood Flow Imaging in Human Liver Using Ultrasound Diffraction Attenuation Microscopy
PH200-SD-SUB1 . . . . . **Station #1**

The Value of DWI Combined with DCE in the Differential Diagnosis of Orbital Lymphoma and Inflammatory Pseudotumor
PH202-SD-SUB6 . . . . . **Station #6**

1:00–1:30 PM

Education Exhibits

A Handbook of Non-EPI Diffusion Tensor Imaging Sequences: Physical Basis, Technical Adjustments, and Potential Clinical Applications
PH127-ED-SUB8 . . . . . **Station #8**

Contrast-Enhanced Spectral Mammography (CESM): How Does It Work?
PH128-ED-SUB7. . . . . **Station #7**

The Need for Virtual X-Ray Fluoroscopic Imaging in Trauma IR: The Best for Proton Irradiation Dose Reduction
PH002-EB-SUB . . . . . **Hardcopy Backboard**

Monday, Dec. 2, 2019

12:15–12:45 PM

Scientific Posters

Advanced Reconstructions Outperform Respect to Traditional Iterative Reconstructions in State-of-the-Art Non-Digital PET/CT Scanners
PH230-SD-MOA1 . . . . . **Station #1**

Image Quality Comparison between Enhanced Multiple Parameter Iterative Reconstruction (EMPIRE) and Filtered Back Projection in Digital Breast Tomosynthesis (DBT) Using the American College of Radiography (ACR) Digital Mammography Phantom
PH227-SD-MOA4 . . . . . **Station #4**

Impact of Imaging Conditions on Localizer-Based Water Equivalent Diameter Estimation and on Dose Modulation
PH229-SD-MOA2 . . . . . **Station #2**

Task Based MTF Comparison Between a New Deep Learning Based CT Reconstruction and Current Iterative Methods
PH228-SD-MOA5 . . . . . **Station #5**

The Optimal Scanner Settings for Clinical CEUS Imaging with High-Frequency Transducers
PH226-SD-MOA3 . . . . . **Station #3**

12:15–12:45 PM

Education Exhibits

MR Image Artifacts: RF Coil Related or Not?
PH129-ED-MOA7. . . . . **Station #7**

Oncological Applications of Diffusion Kurtosis in the Genitourinary System: How, When, and Why?
PH130-ED-MOA6 . . . . . **Station #6**

Ultra-High Field (7T) Two-Dimensional Correlation Spectroscopy to Study Brain Tumors
PH131-ED-MOA8. . . . . **Station #8**

12:45–1:15 PM

Scientific Posters

Clinical Trial Qualification of PET-CT Scanners in Onco-Haematological Clinical Trials Performed with 68Ge Pre-Filled Phantom Permits to Achieve a Lower Inter-Scanner Variability Respect to Standard 18F Phantoms
PH234-SD-MOB7 . . . . . **Station #7**

Comparison of Image Quality and Subjective Acceptance in Abdominal CT By Ultrahigh-Resolution CT at Different Radiation Doses Between Model-Based Iterative and Deep Learning Reconstructions: Phantom and Clinical Pilot Studies
PH207-SD-MOB2 . . . . . **Station #2**

Deep Learning Image Reconstruction for CT Neuro Perfusion Imaging
PH235-SD-MOB3 . . . . . **Station #3**

Denoising and Scatter Correction for Contrast-Enhanced Digital Breast Tomosynthesis
PH231-SD-MOB4 . . . . . **Station #4**

Discussion on the Accurate Measurement of Organ Dose in CT Scanning
PH233-SD-MOB6 . . . . . **Station #6**

Proton Radiography for Pre-Treatment Range Verification in Proton Beam Therapy
PH206-SD-MOB1 . . . . . **Station #1**

The Safety and Feasibility of Intravenous Contrast-Enhanced Sonography in Children - A Single Center and Prospective Study in China
PH232-SD-MOB5 . . . . . **Station #5**

12:45–1:15 PM
Education Exhibits
Numerical Head Model and Simulator for Evaluating Cerebral Microbleed Detection Limits Using MRI
PH004-EB-MOB . . . . . **Hardcopy Backboard**

Pocket Guide for Understand (and Successfully Apply) US and MRI Elastography Techniques
PH132-ED-MOB8. . . . . **Station #8**

Tuesday, Dec. 3, 2019

12:15–12:45 PM
Scientific Posters
Assessment of the Performance of a Multifrequency Doppler Spectral Analysis (MFDSA) Algorithm in the Screening of Cardiovascular Disease
PH210-SD-TUA1 . . . . . **Station #1**

Detector Sampling and Dose Reduction in Whole-Body Photon Counting Computed Tomography
PH249-SD-TUA4. . . . . **Station #4**

Differentiating between Low-Grade and High-Grade Clear Cell Renal Cell Carcinoma Using CT Image Texture Analysis
PH250-SD-TUA5 . . . . . **Station #5**

Distinction between Benign and Malignant Breast Masses at Breast Mammography Using Deep-Learning Method with Mask-R Convolutional Neural Network
PH248-SD-TUA3. . . . . **Station #3**

Dose Level Study in Pediatric Fluoroscopy
PH253-SD-TUA2 . . . . . **Station #2**

Fast MRI Connectomics with the Dual-Echo Turbo Spin Echo (DE-TSE) Pulse Sequence and White Matter Fibrography
PH252-SD-TUA7. . . . . **Station #7**

The Value of Advanced Reconstruction Algorithms in Improving Upper Abdominal CT Image Quality
PH251-SD-TUA6 . . . . . **Station #6**

12:15–12:45 PM
Education Exhibits
Impact of 4D- Ultra-Short Echo Time MR Angiography on Neuroimaging
PH133-ED-TUA8 . . . . . **Station #8**

12:45–1:15 PM
Scientific Posters
An AI Driven Module to Automatically Assess Motion and Imaging Artifacts in Neuro-MRI for Clinical Trial Quality Assurance
PH254-SD-TUB3 . . . . . **Station #3**

Application of MT in Kidney: A Comparison Analysis with Physiological Features
PH257-SD-TUB6. . . . . **Station #6**

Can We Estimate Metabolic Risk on Low-Dose Chest CT? A New Index of Pericardial and Intrathoracic Fat Depots Estimated from a Series of Low-Dose Screening Chest CT
PH213-SD-TUB2. . . . . **Station #2**

Classification of the Types of Pediatric Posterior Fossa Brain Tumors based on Routine MRI Using Wavelet Transformation Analysis of Whole Tumor
PH256-SD-TUB5. . . . . **Station #5**

CT Radiation Dose in a Developing Nation: Justification, Acquisition, and Reconstruction Issues
PH212-SD-TUB1 . . . . . **Station #1**

Direct Measurement of CT Scatter Distribution Using a Long Linear Array Detector
PH255-SD-TUB4 . . . . . **Station #4**

Principle Component Analysis (PCA) in Photon-Counting Spectral CT and Its Implementation in Projection Domain and Image Domain with Denoising
PH258-SD-TUB7. . . . . **Station #7**

Weakly Supervised Learning for Classifying A Cardiomegaly Disease from Normal and Other Diseases on Chest Radiographs
PH259-SD-TUB8. . . . . **Station #8**

Wednesday, Dec. 4, 2019

12:15–12:45 PM
Scientific Posters
Identification and Assessment of Scan Frequency and Cumulative Radiation Exposure in Repeated CT Scans: A Retrospective Cohort Study
PH262-SD-WEA4 . . . . . **Station #4**

Improvement of Nodule Classification Using Domain-Transformed Chest X-Ray Images
PH215-SD-WEA2 . . . . . **Station #2**

Multichannel Image Restoration for Quantitative MRI
PH261-SD-WEA6 . . . . . **Station #6**

Novel Ultrahigh-Resolution CT Using a CMOS Detector Built on a Conventional Multislice CT Scanner's Detector
PH216-SD-WEA3 . . . . . **Station #3**

Performance of a First Dark-Field Chest X-Ray System on Patients
PH260-SD-WEA5 . . . . . **Station #5**

Scanned Projection Radiograph and Ultra-Low-Dose CT for Monitoring PICC Line Malposition
PH214-SD-WEA1. . . . . **Station #1**

12:15–12:45 PM

Education Exhibits

Sonar to the Rescue: Curb Ionizing Radiation with Application of Contrast-Enhanced Ultrasound and Elastography/Controlled Attenuation Parameter Techniques
PH135-ED-WEA7. . . . . **Station #7**

12:45–1:15 PM

Scientific Posters

A Data-Driven Approach to Setting Radiation Dose Notification Values for CT That Can Be Used in Dose Management Software Applications
PH218-SD-WEB4 . . . . . **Station #4**

Assessment of Intraductal Carcinoma in Situ with Grating-Based Phase-Contrast Computed Tomography
PH263-SD-WEB6 . . . . . **Station #6**

Cumulative Radiation Risk for Multiple CT Examinations: A One-Year Survey For a Large Multi-Specialist Hospital
PH264-SD-WEB7 . . . . . **Station #7**

Dosimetric Validation of 3D Printed Quality Assurance Phantoms and Gynecologic Applicators for High Dose Rate Brachytherapy
PH219-SD-WEB3 . . . . . **Station #3**

Organ Dose Evaluations for Individual Patients in Chest-Abdomen-Pelvis CT Examinations Using Deep Learning-Based Automatic Segmentation
PH211-SD-WEB1 . . . . . **Station #1**

Quantitative Analysis of Hepatic Fibrosis and Adiposity Using Intravoxel Incoherent Motion and Magnetic Resonance Spectroscopy
PH217-SD-WEB2. . . . . **Station #2**

Study of Cardiac Structure and Function in Patients with Chronic Kidney Disease by Cardiac MR
PH265-SD-WEB5 . . . . . **Station #5**

12:45–1:15 PM

Education Exhibits

Triple-Rule-Out CT Angiography on 16cm Wide-Detector CT with Dual-Energy Spectral Mode: How to Obtain More (Information) with Less (Dose)
PH136-ED-WEB8. . . . . **Station #8**

Thursday, Dec. 5, 2019

12:15–12:45 PM

Scientific Posters

Accuracy of Volumetric Trabecular Bone Mineral Density Assessment Using Dual-Source Dual-Energy CT: Phantom Study and Comparison with Quantitative CT
PH244-SD-THA5 . . . . . **Station #5**

Chronic Liver Disease Assessment Using Deep Learning on Shear Wave Elastography Image Sequences
PH220-SD-THA2 . . . . . **Station #2**

Deep Learning-Based Liver Segmentation in Abdominal CT Images to Support Automatic Contouring in Radiotherapy Treatment Planning
PH208-SD-THA1. . . . . **Station #1**

Dose and Image Quality in Ultra Low-Dose CT for Urolithiasis: Added Value of Automatic Tube Current Modulation and Deep Learning Image Reconstruction
PH242-SD-THA6. . . . . **Station #6**

Optimal Single-Energy Spectrum Images for Deep learning-Based Detection of Pulmonary Nodules ≥ 4mm in Diameter
PH221-SD-THA3. . . . . **Station #3**

Size-Specific Analysis of Patient Doses From CT Localizer Radiographs
PH222-SD-THA4 . . . . . **Station #4**

The Application of Monochromatic Images in Spectral CT for Reducing Metal Artifacts in Chest Biopsy Procedure
PH243-SD-THA7. . . . . **Station #7**

12:15–12:45 PM

Education Exhibits

Variable Skull Density Ratio for Transcranial MR-Guided Focused Ultrasound Thalamotomy: Is it Possible to Correlate Different Venders
PH137-ED-THA8 . . . . . **Station #8**

12:45–1:15 PM

Scientific Posters

A Brief Answer to the Concerns About Neutron Contamination in 18-MV Spatially Fractionated Radiation Therapy
PH224-SD-THB3 . . . . . **Station #3**

Assessment of Texture Feature Reproducibility in Dual-Energy Computed Tomography Virtual Monoenergetic Images
PH246-SD-THB7. . . . . **Station #7**

Automated Segmentation of Cardiac Structures for Pre-Operative Training and Planning of Congenital Heart Surgery
PH225-SD-THB4 . . . . . **Station #4**

Construction and Pre-Evaluation of an In-House Cylindrical Ionization Chamber Fabricated from Indigenous Materials
PH209-SD-THB1. . . . . **Station #1**

Detection of Arbitrary Signals on Images with Streak Artifacts Using Convolutional Neural Networks
PH247-SD-THB5. . . . . **Station #5**

Evaluation of Patient Radiation Dose Values Recorded During Fluoroscopically-Guided Neuro-Endovascular Procedures
PH223-SD-THB2. . . . . **Station #2**

The Impact of Radiation Dose on the Measurement Accuracy of Nodule Volume and Long Diameter Using Deep Learning-Based Computer-Aided Diagnostic System: A Phantom Study
PH245-SD-THB6. . . . . **Station #6**

12:45–1:15 PM

Education Exhibits

Know Your Dark Horse in Imaging: Acquisition and Physics Behind Dual-Energy CT and Its Application in Cardiac Imaging
PH138-ED-THB8 . . . . . **Station #8**

Education Exhibits

Space No.	Exhibit Title
PH001-EB-X	Neuroimaging Protocols for Large Scale Multi-Center Research Studies: From Volumetrics to Structuro-Functional Connectomics
PH005-EB-X	How to Manage Image Quality and Radiation Exposure for an X-Ray System Using a Flat-Panel Detector
PH006-EB-X	Characteristics and Optimization of Five Company CT-AEC in Pediatric Abdominal CT
PH007-EB-X	Photon Counting Technique: How to Analyze a Novel Quantitative Image?
PH100-ED-X	Cinematic Rendering: A Novel 3D Visualization Technique for Soft Tissues
PH101-ED-X	Evaluation of the CT Number of Different Iodine Concentration Contrast Media on Different Generations Dual-Energy CT Imaging
PH102-ED-X	Influence of the Center of Rotation of the X-Ray Tube in Tomosynthesis Imaging
PH103-ED-X	Improvement of Image Analysis Accuracy on Fast kVp Switching Dual-Energy CT with Optimum Scan Parameter
PH104-ED-X	Perfusion CT: Concepts and Applications in Abdominal Imaging
PH105-ED-X	Easier-to-Understand Fast MR Imaging: Pictorial Review of K-Space
PH106-ED-X	Is Your Head Spinning Yet? MRI Acceleration Techniques for the MSK Guy
PH107-ED-X	MR Alphabet Soup: Understanding the Principles of Common Magnetic Resonance Abbreviations
PH108-ED-X	Recommendation for Optimization Considering Pit Fall of Virtual Monochromatic Image in Dual-Layer Detector CT
PH109-ED-X	Effective Use of Radiation Protective Equipment in Fluoroscopy: Separating Real from Fake News

PH110-ED-X	The Image Quality of Ultra-High-Resolution CT with Deep Learning-Based Reconstruction Attracted the Diagnostic Radiologists!
PH112-ED-X	Make Your Images Less Susceptible: Improving Magnetic Resonance Imaging Quality in Patients with Implants
PH113-ED-X	A Survey of CT Iterative Reconstruction (IR) Techniques
PH114-ED-X	Development of Doppler-like CT Image Using Color Sequential Subtraction
PH115-ED-X	CT Noise Reduction Methods to Facilitate Lower Dose Scanning: Strengths and Weaknesses of Iterative Reconstruction and New Kids on the Block
PH116-ED-X	Compressed Sensing MRI in Clinical Practice: From Theory to Practical Implementation in a Few Clicks
PH117-ED-X	Detection of Tendon for Rheumatoid Arthritis in Ultrasonography
PH118-ED-X	IAEA Atlas on Quality Control and Image Artefacts in SPECT/CT
PH119-ED-X	Improving Head Imaging Quality for Patients with Nervous System Disease who Have Constant Uncontrolled Head Motion
PH120-ED-X	An MDCT Tutorial: Scan Coverage, Speed, Dose Output and Field of View
PH121-ED-X	Sequence Design of Correction of Magnetic Resonance Metal Artifacts
PH122-ED-X	Art(ifact) Matters: Brain and Spine MRI Artifacts at 1.5 Tesla with Tips and Tricks on How to Eliminate Them
PH123-ED-X	Whole-Body Clinical Applications and Diagnostic Performance of Dual-Energy Subtraction Radiography
PH124-ED-X	Unusual Cause of PET/CT Artifacts: Collection and Root Cause Analysis
PH125-ED-X	Graph Theory and Resting-State Functional MRI: New Tools to Explore the Brain
PH134-ED-X	How to Utilize Metal Artifact Reduction for Single Energy and Dual Energy

RSNA QUALITY ESSENTIALS AND ADVANCED LEVEL QUALITY CERTIFICATES

- Earn a Quality Essentials Certificate (QEC) by scoring 80% or higher on the SAM test at any of the following quality sessions: MSQI31, MSQI32 and MSQI33 on Tuesday, December 3 (Room TBD)
- Learn more about online opportunities for earning QECs and how QECs can lead to an Advanced Level Quality Certificate at *RSNA.org/Quality-Improvement*

QUALITY IMPROVEMENT REPORTS: TIPS FOR SUCCESSFUL SUBMISSIONS

Monday, December 2nd, 10:30 – 11 am, Discovery Theater

Get tips on tailoring your submission to meet the unique guidelines of this poster section.

QI REPORT POSTER WALKTHROUGH

Monday, December 2nd, 3 to 4 pm, Learning Center, Quality Improvement Report Section

Join experts in quality improvement in radiology, as they walk through the QI Report posters, highlighting examples of great work and sound methodology. Bring your walking shoes and come prepared for an interactive session. Those who are interested in leading and publishing QI projects in the coming months and years will find this especially valuable.

Questions? Please email *quality@rsna.org* for more information.

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