

**American Association of Physicists in Medicine 2021**  
**Department of Radiation Oncology**  
**University of Maryland School of Medicine**  
(all general viewing posters listed under Sunday 7/25)

Identifier	Authors	Title (ctrl+click to link to abstract)	Type
<b>Sunday, 7/25</b>			
PO-GePV-E-14	Lee S, Lasio G, Guerrero M, Xu H, Chen S, Kwok Y	<a href="#">Implementation of Ra-223 radiopharmaceutical program in radiation oncology at a small community cancer center</a>	General poster
PO-GePV-M-63	Polf J, Maggi P, Panthi R, Mackin D, Peterson S, Beddar S	<a href="#">The effects of Compton camera data acquisition timing and readout on prompt gamma images acquired at clinical proton beam dose rates</a>	General poster
PO-GePV-P-21	Zhang B, Becker S, Zhou J, Chen S, Yi B	<a href="#">A decentralized and autonomous blockchain-based medical physics education platform: Toward a new paradigm</a>	General poster
PO-GePV-T-1	Nasehi Tehrani J, Lasio G, Libby B, Lamichhane N, Jiang K, Macfarlane M, Guerrero M	<a href="#">A nomogram to estimate required Ci-S in prostate HDR brachytherapy</a>	General poster
SU-C-TRACK 4-0	Yang W, Ren L, Pan T	<a href="#">Novel imaging technologies for motion management in radiotherapy</a>	Oral presentation
SU-D-TRACK 4-3	Ranjbar M, Sabouri P, Mossahebi S, Sawant A, Mohindra P, Lasio G, Topoleski L	<a href="#">Biomechanical simulation of lung motion for tumor position estimation during radiation therapy</a>	Oral presentation
SU-IePD-TRACK 5-7	Yi B, Mossahebi S, Nichols E, Guerrero M, Lamichhane N, Mohindra P	<a href="#">Proton arc therapy as an alternative to Syed interstitial high dose rate (HDR) brachytherapy for treating a gynecological cancer patient with lateral disease extension</a>	Interactive poster
SU-E-TRACK 5-3	Chen L, Becker S, McAvoy S, Nichols E, Guerrero M	<a href="#">Correlation of treatment time to target volume for GammaPod treatments: A simple second calculation</a>	Oral presentation
SU-IePD-TRACK 5-7	Poirier Y, Xu J, Ahmady A, Mossahebi S, Zhang H, Therriault-Proulx F, Sawant A	<a href="#">Novel plastic scintillator for online dosimetry in electron FLASH-RT</a>	Interactive poster
PO-GePV-T-102	Vedam S, Zhang B, Mossahebi S, Yao W, Zakhary M, Yi B	<a href="#">Practical implementation and dosimetric implications of a novel dose painting delivery strategy: minimal energy modification (MEM) during proton therapy of thoracic and abdominal tumors</a>	General poster

PO-GePV-M-99	Xu H, Cheston S, Gopal A, Chen S, Lee S, Dudley S	Comparison of three setup methods of skin marker alignment using diamond-shaped light field for prone breast EBRT	General poster
PO-GePV-M-113	Gopal A, Lasio G, Zhang B, Xu H, Chen S, McAvoy S, DeCesaris C	Dosimetric validation of surface guided patient set-up for breast radiotherapy	General poster
PO-GePV-T-323	Han D, Hooshangnejad H, Yao W, Jatcsak J, Ding K	Dosimetric impact of materials override of hydrogel spacer in stereotactic body proton therapy (SBPT) for locally advanced pancreas cancer (LAPC)	General poster
PO-GePV-T-146	Rahman S, Chen S, Yi B, Zhang B	Radiation oncology community site integration experience - Tools and checklist	General poster
PO-GePV-T-403	Kinkopf P, Modiri A, Yu K, Yan Y, Mohindra P, Timmerman R, Sawant A, Vicente E	Impact of dose calculation algorithm on airway dosimetry: comparison of AAA and Acuros	General poster
PO-GePV-T-94	Mossahebi S, Poirier Y, Gerry A, Repetto C, Vujaskovic Z, Jackson I, Sawant A	Novel collimator for high-throughput proton FLASH-RT murine hemithorax irradiations	General poster
SU-IePD-TRACK 1-7	Zhang Z, Huang M, Jiang Z, Chang Y, Lu K, Ren L	Patient-specific deep learning model for enhancing 4D-CBCT image for radiomic analysis	Interactive poster
PO-GePV-T-437	Xu J, Poirier Y, Sawant A	Precise pulse delivery control using monitor units in electron FLASH-RT	General poster
PO-GePV-T-134	Mossahebi S, Sabouri P, Zhang B, Makdasy Hana E, William J, Chen S	Sensitivity of target coverage and patient specific IMPT QA to spot positioning errors	General poster
PO-GePV-T-136	Mossahebi S, Sabouri P, Kim G, Polf J, Molitoris J, Greenwald B, Darwin P, Chen S	Impact of esophageal and biliary stents on proton dose calculation	General poster
PO-GePV-T-82	Mossahebi S, Makdsay Hana, Williams J, Algawwam B, Meijers A, Yi B	Determination of plan deliverability and treatment time estimation for proton pencil beam therapy using a machine emulator script	General poster
PO-GePV-M-17	Alaka BG, Samuel D, Bentefour E	Prediction of WEPL image in proton radiography using deep learning	General poster
PO-GePV-T-98	Mossahebi S, Sawant A, Polf J, Bentefour E	Achievable Flash dose-rate by cyclotron-based proton therapy systems	General poster
PO-GePV-T-247	Cammin J, Bouton T, Chacko E, Zhang B, Chen S, Molitoris J, Yi B	Planning strategies for whole head-and-neck radiation with robustness against shoulder motion using volumetric-modulated arc therapy	General poster
PO-GePV-T-	Sabouri P, Mossahebi S, Zhang B, Chen S	Impact of spot position uncertainties on intensity	General poster

		modulated proton therapy plans for head and neck cancers	
<b>Monday, 7/26</b>			
MO-EF-TRACK 4-3	Jiang Z, Chang Y, Zhang Z, Yin F, Ren L	Fast 4D-CBCT reconstruction using a novel feature-compensated deformable convolutional network (FeaCo-DCN)	Oral presentation
<b>Tuesday, 7/27</b>			
TU-AB-TRACK 4-0	Vinogradskiy Y, Matuszak M, Han B, Sawant A	Functional image-guided targeting and avoidance in radiation therapy	Organizer and oral presentation
TU-AB-TRACK 6-3	Barajas C, Kroiz G, Polf J, Peterson S, Mackin D, Beddar S, Gobbert M	Neural network-based event classification to improve Compton imaging for proton beam range verification	Oral presentation
TU-C-TRACK 4-4	Vicente E, Modiri A, Kipritidis J, Yu K, Yan Y, Owen DR, Matuszak MM, Mohindra P, Timmerman R, Sawant A	Predicting lung ventilation loss caused by local and distant radiation-induced damage	Oral presentation
TU-F-TRACK 5-3	Bentefour E, Sawant A, Mossahebi S	Need for beam collimation design for dose-rate fall-off in proton Flash treatment using pencil beam scanning	Oral presentation
TU-B-TRACK 6-7	Biswal N, Zhang B, Molitoris J, Witek M, Yi B	Beam path length from isocenter to skin on cone beam CT Images as an adaptive planning indicator of head and neck patients undergoing proton therapy	Oral presentation
TU-C-TRACK 3-2	Chang Y, Jiang Z, Segars P, Zhang Z, Yin F, Ren L	A GAN-based technique for synthesizing realistic respiratory motion in the 4D-XCAT phantoms (Best in Physics, Imaging)	Oral presentation
TU-D-TRACK 3-5	Yuan Y, Ren L, Chang Y	Synthesize 3D realistic CT textures and anatomy in the XCAT phantom using generative adversarial network (GAN)	Oral presentation
<b>Wednesday, 7/28</b>			
WE-AB-TRACK 4-0	Ren L	AI in image guided radiation therapy: AI-based image enhancement: Advances and clinical implications	Organizer and oral presentation
WE-IePD-TRACK 5-7	Yao W	Improving the uniqueness of numerically extracted proton pencil-beam energy spectrum from integral depth dose	Interactive poster
WE-IePD-TRACK 6-5	Guerreo M, Smith E	Comparison of dose escalation strategies for head and neck cancer	Interactive poster

		patients using a radiobiological model of reoxygenation	
WE-IePD-TRACK 1-6	Pan B, Ren L	Evaluation of U-Net++ on low-dose CT enhancement	Interactive poster
WE-IePD-TRACK 2-3	Li G, Liang Y	Local noise and size of region of interest in CT images	Interactive poster
WE-IePD-TRACK 1-7	Chang Y, Zhang Z, Jiang Z, Lai Y, Ren L	A generative adversarial network (GAN)-based technique for synthesizing on-board imaging artifacts in the extended cardiac-torso (XCAT) phantoms	Interactive poster
Track 3	Cammin J, Moderator	Dose and imaging performance assessment in CT and CBCT	Session
<b>Thursday, 7/29</b>			
TH-AB-TRACK5-0	Bentzen S	Adaptive radiation therapy in the era of big data with artificial intelligence: Learning from experience: AI and data mining for outcome-driven radiation treatment planning	Invited oral presentation
TH-IePD-TRACK 3-1	Sabouri P, Ranjbar M, Mossahebi S, Sawant A, Mohindra P, Lasio G, Topoleski L	Benchmark of 4DCT derived motion models with a biomechanical lung model for tumor position estimation	Interactive poster
TH-EF-TRACK 2-0	Ren L	Principal investigator scientific highlights: Hybrid virtual MRI/CBCT: A new paradigm for image guidance in liver SBRT	Invited oral presentation
TH-F-TRACK 5-4	Wan S, Rodrigues D, Stauffer P, Yu Y, Kwiatkowski J, Judy K, Khanna O, Bloem M, Goldstein R, Hurwitz M, Shi W	Development of a novel dual-modality balloon implant for simultaneous HDR brachytherapy and magnetic nanoparticle hyperthermia of brain tumor resection cavities	Oral presentation
TH-F-TRACK 5-7	Yao W, Zhang B, Han D, Polf J, Vedam S, Lasio G, Yi B	Use of CBCT for reducing QACT frequency in intensity modulated proton therapy: Head and neck	Oral presentation