

American Association of Physicists in Medicine 2022
Department of Radiation Oncology
University of Maryland School of Medicine
(Partial list)

Authors	Title (ctrl+click to link to abstract)	Type
Babik J, Chabaytah N, Behmand B, Connell T, Evans M, Ruo R, Poirier Y, Abbasinejad Enger S	Characterization of the relative biological effectiveness of a range of photon energies for irradiation of HeLa and PC-3 cell lines	General e poster
Becker S, Stump K, Culberson W, Poirier Y, Zhang H, Guerrero M, Yi B, Nichols E	3D printed ABS breast phantom for GammaPod	General e poster
Bentzen S	The Anne and Donald Herbert Distinguished Lectureship in Modern Statistical Modeling: Models and Modeling in Radiation Oncology. What's Next?	Award lecture
Biswal NC, Nichols E, Mogilnay E, Witek M, Yi BY	Optimal QACT frequency during proton therapy: A single institution study	General e poster
Biswal NC, Zhang B, Nichols E, Witek M, Regine WF, Yi BY	Beam path length from isocenter to skin on cone-beam CT Images as an adaptive planning indicator in proton therapy for extremity tumors	General e poster
Byrne K, Gerry A, Xu J, Poirier Y, Sawant A, Jackson IL, Jiang K	A platform for murine whole thoracic lung irradiation with electron FLASH radiotherapy at variable dose rates	Oral
Cammin J	Current challenges and prospects in motion management for radiotherapy	Oral
Cammin J, Bouton T, Chacko E, Paranada 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	Interactive e-poster
Cao Y, Kunaprayoon D, Xu J, Ren L	AI-assisted clinical decision making (CDM) for radiosurgery of brain metastases using three-path three-dimensional CNN	Interactive e-poster
Gopal A, Siddiqui O, Molitoris J, Guerrero M	Impact of image registration type and quality on post-radioembolization Y90 PET/CT dosimetry	Oral
Han D, Biswal NC, Zhang B, Witek M, Yi BY	The Pearson correlation coefficient of target and the beam path length using cone-beam CT images as adaptive planning indicators of head and neck patients undergoing proton therapy	General e poster
Han D, Hooshangnejad H, Jatczak J, Yao W, Xu J, Ding K	Patient-specific duodenal hydrogel spacer as a dosimetric buffer for proton therapy for locally advanced pancreatic cancer	General e poster
Hancu I, Obcemea C, Siewerdsen J, Sawant A, Brock K	Grant funding syposium: Pearls and pitfalls	Moderator
Jiang K, MacFarlane M, McCarroll R, Lamichhane N, Mohindra P.	Towards improved robustness to needle displacement: A robust planning technique for gynecological high dose rate interstitial brachytherapy	Snap oral

Jiang Z, Polf J, Ren L	Deep learning-based prompt-gamma imaging for range verification in proton radiotherapy	Snap oral
Jiang Z, Sun L, Yao W, Xiang L, Ren L	Deep learning-based 3D proton-acoustic imaging using a matrix ultrasound array for dose verification in prostate proton therapy	Interactive e poster
Lee S, Cammin J, Zhang B, Jiang K, MacFarlane M, Zhou J, Yi B, Chen S	Investigation of smoothing filter effects on beam scanning data	General e poster
Lu K, Ren L, Yin F	A geometry-guided multi-beamlet deep learning technique for CT reconstruction	Oral
Lu K, Zhang Z, Ren L, Yin F	Deep learning projection interpolation for sparsely sampled real patient CBCT reconstruction	Interactive e poster
Modiri A	Cardiotoxicity avoidance through personalized optimization of radiotherapy plans	Oral
Modiri A	Outcome-driven and risk-adapted personalized treatment planning	Moderator
Modiri A, Mossahebi S, Mohindra P, Sawant A, Chen S, Miller R, Zhang B, Yi B	High-efficiency volumetric-modulated proton arc therapy (HEV-PAT): A multi-disease-site concept study	Interactive e poster
Mossabei S	Space-time modulation of treatment	Moderator
Mossahebi S, Jatzak J, Zhang B, Molitoris J, Mohindra P, Regine W, Yi B	Proton lattice planning strategy using primary and robust complimentary beams	General e poster
Mossahebi S, Sabouri P, Koroulakis A, Lehman K, Cusatis D, Shah J, Wohlfahrt P, Molitoris J	Radiation planning for pencil beam scanning proton therapy using single energy and dual energy computed tomography simulation methods	Interactive e poster
Polf J, Demaree J, Lamichanne N, Guardala N	Study of backbone and base pair bond breaking in DNA during proton beam irradiation	Oral
Polf J, Shukla H, Dukic T, Roy S, Bhandary B, Lamichhane N	3D organoids as a model to study and predict the response of pancreatic cancer to radiation therapy	Oral
Qiao Z, Zhang Z, Jiang Z, Lai Y, Lee J, Wu D, Beltran C, Ren L, Huang M	Interpretable feature-specific generative adversarial network model for 3D CBCT Image Enhancement for Radiomics	General e poster
Ren L	The emerging use of AI in image-guided radiation therapy	Oral
Ren L	Virtual trials in therapy	Oral
Sabouri P, Kim G, Chen S, Darwin P, Mossahebi S	Dosimetric impact of esophageal and biliary stents in intensity modulated proton therapy	General e-poster

Saha M, Jung J, Lee S, Lee C, Mille M	Automatic multi-organ segmentation using a deep neural network for assessing dose to organs at risk during breast radiotherapy	Interactive e poster
Samei E, Samei E, Ren L, Maidment A, Badano A	Virtual clinical trials	Moderator
Sawant A	Grant reviewer pro tips: Therapy	Oral
Sheikh E, Agrawal K, Roy S, Gartia MR, Shukla HD, Biswal NC	Raman-encoded molecular imaging and lipidomics as predictors of pancreatic cancer microenvironment changes during treatment with 3-bromopyruvate	Blue ribbon e-poster
Tran PT	Radiotherapy and the immune system: SAM Therapy Scientific Symposium	Moderator
Van Slyke AL, Mashayekhi M, Molitoris JK, Regine WF, Yi B, Zhang B, Chen S	A simulation of the effect of respiration-induced motion on the delivered dose distribution in LATTICE radiation therapy	Oral
Vicente E	Advances in anatomic, biologic, and functional image guidance	Session moderator
Xu H, MacFarlane M, Guerrero M, Gopal A, Chen S, Zhang B	Automated physics chart checking for brachytherapy	General e poster
Xu J, Cosely T, Bouton T, Zhang B, Han D, Zhou J, Chen S	Evaluation of VMAT & IMRT planning strategies for advanced prostate cancer patients with bilateral hip prostheses	General e poster
Yao W	Application of extracted proton energy spectrum from measured integrated depth dose to validating the linear energy transfer calculation in a commercial TPS	General e poster
Yi BY	Readiness for radiation treatment continuity: Survey on contingency plans against cyberattacks	Interactive e poster
Zhang B, Yao W, Biswal NC, Zhou J, Xu J, Xu H, Chen S, Yi BY	Variation of Bragg peak positions in cone-beam CT as an indicator of adaptive planning of the head and neck IMPT treatments	Interactive e poster
Zhang Z, Huang M, Jiang Z, Chang Y, Lu K, Qiao Z, Yin F, Tran P, Wu D, Beltran C, Ren L	Comparison of patient-specific deep learning models for enhancing 4D-CBCT image for radiomics analysis"	General e poster
Zhang Z, Jiang Z, Lu K, Yin F, Ren L	Patient-specific synthetic MRI generation from CBCT for image guidance in liver SBRT	SNAP oral
Zhou J	Clinical efficiency improvements of brachytherapy in community sites	Oral
Zhou J, Yan Z, Polf J, Zhang H, Zhang B, MacFarlane M, Han D, Zakhary M, Bopal A, Xu J, Lee S, Xu H, Lasio G, Chen S	A semi-supervised learning method using soft-label for cell nuclei segmentation on immunohistochemistry images	General e poster