Table S1. List of included papers for quantitative evaluation and their classification according to the study main aims and AI subgroups (i.e., type of methods).

Ref	Type	Year	Title	Main aims
[10]	ML	2021	Implementation of the Australian Computer-Assisted Theragnostics (AusCAT) network for radiation oncology data extraction, reporting and distributed learning	Patient care and management
[12]	DL	2019	Learning deep similarity metric for 3D MR-TRUS image registration	Image registration
[13]	DL	2018	Deep Learning based Inter-Modality Image Registration Supervised by Intra-Modality Similarity	Image registration
[16]	ML	2020	Lasso logistic regression to derive workflow-specific algorithm performance requirements as demonstrated for head and neck cancer deformable image registration in adaptive radiation therapy	Adaptive Planning
[18]	DL	2021	Automated contour propagation of the prostate from pCT to CBCT images via deep unsupervised learning	Image registration
[23]	ML	2018	Early Changes in Serial CBCT-Measured Parotid Gland Biomarkers Predict Chronic Xerostomia After Head and Neck Radiation Therapy	Outcome prediction
[24]	DL	2018	H-DenseUNet: Hybrid Densely Connected UNet for Liver and Tumor Segmentation From CT Volumes.	Image segmentation
[25]	DL	2018	DRINet for Medical Image Segmentation	Image segmentation
[26]	DL	2018	Fully automatic multi-organ segmentation for head and neck cancer radiotherapy using shape representation model constrained fully convolutional neural networks	Image segmentation
[27]	DL	2019	Shape constrained fully convolutional DenseNet with adversarial training for multiorgan segmentation on head and neck CT and low-field MR images	Image segmentation
[29]	DL	2021	Clinical implementation of artificial intelligence-driven cone-beam computed tomography-guided online adaptive radiotherapy in the pelvic region	Adaptive Planning
[30]	ML	2020	Automated contouring and planning pipeline for hippocampal-avoidant whole-brain radiotherapy	Image segmentation
[31]	DL	2021	Deep learning-based automatic delineation of the hippocampus by MRI: geometric and dosimetric evaluation	Image segmentation
[32]	DL	2020	Head and neck multi-organ auto-segmentation on CT images aided by synthetic MRI.	Synthetic image generation
[33]	DL	2021	Preliminary Experience of Implementing Deep-Learning Based Auto-Segmentation in Head and Neck Cancer: A Study on Real-World Clinical Cases	Image segmentation
[37]	DL	2020	Strategies to improve deep learning-based salivary gland segmentation	Image segmentation
[38]	DL	2021	Clinically applicable segmentation of head and neck anatomy for radiotherapy: Deep learning algorithm development and validation study	Image segmentation
[42]	DL	2020	Automated Quality Assurance of OAR Contouring for Lung Cancer Based on Segmentation With Deep Active Learning	Image segmentation

[43]	DL	2021	A 2D–3D hybrid convolutional neural network for lung lobe auto-segmentation on standard slice thickness computed tomography of patients receiving radiotherapy	Image segmentation
[45]	DL	2020	Generalization vs. Specificity: In Which Cases Should a Clinic Train its Own Segmentation Models?	Image segmentation
[46]	DL	2021	Automatic Segmentation of Clinical Target Volumes for Post-Modified Radical Mastectomy Radiotherapy Using Convolutional Neural Networks	Image segmentation
[48]	ML	2018	Abdominal, multi-organ, auto-contouring method for online adaptive magnetic resonance guided radiotherapy: An intelligent, multi-level fusion approach	Image segmentation
[49]	IO	2021	An Artificial Intelligence-Based Full-Process Solution for Radiotherapy: A Proof of Concept Study on Rectal Cancer	Treatment planning
[51]	DL	2020	Auto-segmentations by convolutional neural network in cervical and anorectal cancer with clinical structure sets as the ground truth	Image segmentation
[52]	DL	2021	Clinical implementation of deep learning contour autosegmentation for prostate radiotherapy	Image segmentation
[53]	DL	2021	Deep learning-based auto-segmentation of clinical target volumes for radiotherapy treatment of cervical cancer	Image segmentation
[54]	ML	2021	Varian ethos online adaptive radiotherapy for prostatecancer: Early results of contouring accuracy, treatmentplan quality, and treatment time	Adaptive Planning
[70]	ML	2021	Radiomics classifer to quantify automatic segmentation quality of cardiac sub-structures for radiotherapy treatment planning	Image segmentation
[71]	DL	2021	Using Spatial Probability Maps to Highlight Potential Inaccuracies in Deep Learning-Based Contours: Facilitating Online Adaptive Radiation Therapy	Image segmentation
[72]	DL	2021	Investigating the potential of deep learning for patient-specific quality assurance of salivary gland contours using EORTC-1219-DAHANCA-29 clinical trial data	Image segmentation
[73]	DL	2018	Dose evaluation of fast synthetic-CT generation using a generative adversarial network for general pelvis MR-only radiotherapy	Synthetic image generation
[74]	DL	2020	Comparison of CBCT-based dose calculation methods in head and neck cancer radiotherapy: from Hounsfield unit to density calibration curve to deep learning	Synthetic image generation
[78]	DL	2017	MR-based synthetic CT generation using a deep convolutional neural network method.	Synthetic image generation
[79]	DL	2019	A preliminary study of using a deep convolution neural network to generate synthesized CT images based on CBCT for adaptive radiotherapy of nasopharyngeal carcinoma	Synthetic image generation
[80]	DL	2020	RealDRR - Rendering of realistic digitally reconstructed radiographs using locally trained image-to-image translation	Synthetic image generation
[81]	DL	2020	A new deep convolutional neural network design with efficient learning capability: Application to CT image synthesis from MRI	Synthetic image generation
[82]	DL	2020	Deep learning-based synthetic CT generation for paediatric brain MR-only photon and proton radiotherapy	Treatment planning
[83]	DL	2021	Deep learning-based volumetric image generation from projection imaging for prostate radiotherapy	Synthetic image generation

[84]	DL	2020	X-ray2Shape: Reconstruction of 3D Liver Shape from a Single 2D Projection Image	Synthetic image generation
[85]	DL	2020	A deep learning approach to generate synthetic CT in low field MR-guided adaptive radiotherapy for abdominal and pelvic cases	Synthetic image generation
[87]	IO	2021	Personalized automation of treatment planning in head-neck cancer: A step forward for quality in radiation therapy?	Treatment planning
[88]	DL	2020	Artificial intelligence-based radiotherapy machine parameter optimization using reinforcement learning	Treatment planning
[90]	IO	2021	Challenges in lung and heart avoidance for postmastectomy breast cancer radiotherapy: Is automated planning the answer?	Treatment planning
[91]	DL	2018	Cone Beam Computed Tomography Image Quality Improvement Using a Deep Convolutional Neural Network	Patient positioning
[92]	DL	2020	Feasibility of image quality improvement for high-speed CBCT imaging using deep convolutional neural network for image-guided radiotherapy in prostate cancer	Patient positioning
[93]	DL	2018	Markerless Respiratory Tumor Motion Prediction Using an Adaptive Neuro-fuzzy Approach	Motion
[94]	DL	2020	Development and evaluation of a deep learning based artifcial intelligence for automatic identifcation of gold fiducial markers in an MRI-only prostate radiotherapy workflow	Patient positioning
[95]	DL	2020	Real-time markerless tumour tracking with patient-specific deep learning using a personalised data generation strategy: Proof of concept by phantom study	Motion
[101]	IO	2021	Toward automation of initial chart check for photon/electron EBRT: the clinical implementation of new AAPM task group reports and automation techniques	Images and chart review
[103]	ML	2020	An artificial neural network to model response of a radiotherapy beam monitoring system	Plan and machine QA
[104]	ML	2019	Characterization of a Bayesian network-based radiotherapy plan verification model	Plan and machine QA
[105]	ML	2020	An Artificial Intelligence Model for Predicting 1-Year Survival of Bone Metastases in Non-Small-Cell Lung Cancer Patients Based on XGBoost Algorithm	Outcome prediction
[106]	ML	2019	Radiomics Model to Predict Early Progression of Nonmetastatic Nasopharyngeal Carcinoma after Intensity Modulation Radiation Therapy: A Multicenter Study	Outcome prediction
[110]	DL	2021	AI-Based Radiation Dose Quantification for Estimation of Heart Disease Risk in Breast Cancer Survivors After Radiation Therapy	Outcome prediction
[111]	ML	2019	A machine learning approach for identifying gene biomarkers guiding the treatment of breast cancer	Outcome prediction
[112]	ML	2021	Strategies to develop radiomics and machine learning models for lung cancer stage and histology prediction using small data samples	Outcome prediction
[113]	ML	2021	A prediction model for degree of differentiation for resectable locally advanced esophageal squamous cell carcinoma based on CT images using radiomics and machine-learning	Outcome prediction
[115]	ML	2019	Imaging-Based Individualized Response Prediction Of Carbon Ion Radiotherapy For Prostate Cancer Patients	Outcome prediction
[116]	DL	2021	The use of deep learning on endoscopic images to assess the response of rectal cancer after chemoradiation	Outcome prediction
[117]	ML	2019	Computed Tomography-based Radiomics for Risk Stratification in Prostate Cancer	Outcome prediction

[118]	ML	2021	Machine learning and statistical prediction of patient quality-of-life after prostate radiation therapy	Outcome prediction
[119]	ML	2018	A prediction model for early death in non-small cell lung cancer patients following curative-intent chemoradiotherapy	Outcome prediction
[120]	ML	2019	Supervised machine-learning enables segmentation and evaluation of heterogeneous post-treatment changes in multi-parametric mri of soft-tissue sarcoma	Image segmentation
[121]	ML	2019	Development of a Machine Learning Model for Optimal Applicator Selection in High-Dose-Rate Cervical Brachytherapy	Outcome prediction
[122]	ML	2018	Unsupervised machine learning of radiomic features for predicting treatment response and overall survival of early stage non-small cell lung cancer patients treated with stereotactic body radiation therapy	Outcome prediction
[140]	DL	2018	MR-Only Brain Radiation Therapy: Dosimetric Evaluation of Synthetic CTs Generated by a Dilated Convolutional Neural Network	Adaptive planning
[141]	DL	2019	MRI super-resolution reconstruction for MRI-guided adaptive radiotherapy using cascaded deep learning: In the presence of limited training data and unknown translation model	Adaptive planning
[142]	DL	2019	Toward predicting the evolution of lung tumors during radiotherapy observed on a longitudinal MR imaging study via a deep learning algorithm	Adaptive planning
[143]	DL	2019	Segmenting lung tumors on longitudinal imaging studies via a patient-specific adaptive convolutional neural network	Adaptive planning
[144]	ML	2019	Learning-based CBCT correction using alternating random forest based on auto-context model	Adaptive planning
[145]	DL	2020	A deep learning-based method for predicting volumes of nasopharyngeal carcinoma for adaptive radiation therapy treatment	Adaptive planning
[146]	DL	2020	Unsupervised learning for deformable registration of thoracic CT and cone-beam CT based on multiscale features matching with spatially adaptive weighting	Adaptive planning
[147]	DL	2020	Patient-Specific Finetuning of Deep Learning Models for Adaptive Radiotherapy in Prostate CT	Adaptive planning
[148]	DL	2020	Learning deformable image registration with structure guidance constraints for adaptive radiotherapy	Adaptive planning
[149]	DL	2020	Longitudinal Prediction of Radiation-Induced Anatomical Changes of Parotid Glands During Radiotherapy Using Deep Learning	Adaptive planning
[150]	DL	2020	Unsupervised Cone-Beam Artifact Removal Using CycleGAN and Spectral Blending for Adaptive Radiotherapy	Adaptive planning
[151]	DL	2020	Dose distribution correction for the influence of magnetic field using a deep convolutional neural network for online MR-guided adaptive radiotherapy	Adaptive planning
[152]	DL	2020	Developments in deep learning based corrections of cone beam computed tomography to enable dose calculations for adaptive radiotherapy	Adaptive planning
[153]	ML	2020	Indications of Online Adaptive Replanning Based On Organ Deformation	Adaptive planning
[154]	ML	2020	Prediction of the individual multileaf collimator positional deviations during dynamic IMRT delivery priori with artificial neural network	Adaptive planning

[155]	ML	2020	An adversarial machine learning based approach and biomechanically-guided validation for improving deformable image registration accuracy between a planning CT and cone-beam CT for adaptive prostate radiotherapy applications	Adaptive planning
[156]	ML	2020	Predicting spatial esophageal changes in a multimodal longitudinal imaging study via a convolutional recurrent neural network	Adaptive planning
[157]	DL	2021	Clinical Enhancement in AI-Based Post-processed Fast-Scan Low-Dose CBCT for Head and Neck Adaptive Radiotherapy	Adaptive planning
[158]	DL	2021	Intentional deep overfit learning (IDOL): A novel deep learning strategy for adaptive radiation therapy	Adaptive Planning
[159]	DL	2021	First experience of autonomous, un-supervised treatment planning integrated in adaptive MR-guided radiotherapy and delivered to a patient with prostate cancer	Adaptive planning
[160]	DL	2021	Improvement of megavoltage computed tomography image quality for adaptive helical tomotherapy using cycleGAN-based image synthesis with small datasets	Adaptive planning
[161]	DL	2021	Managing tumor changes during radiotherapy using a deep learning model	Adaptive planning
[162]	DL	2021	Dynamic stochastic deep learning approaches for predicting geometric changes in head and neck cancer	Adaptive planning
[163]	DL	2021	Deep learning-based deformable image registration of inter-fraction CBCT images for adaptive radiation therapy	Adaptive planning
[164]	DL	2018	Automatic quantification of calcifications in the coronary arteries and thoracic aorta on radiotherapy planning CT scans of Western and Asian breast cancer patients	Detection and classification
[165]	ML	2018	Radio-pathomic Maps of Epithelium and Lumen Density Predict the Location of High-Grade Prostate Cancer	Detection and classification
[166]	ML	2018	Gantry angle classification with a fluence map in intensity-modulated radiotherapy for prostate cases using machine learning	Detection and classification
[167]	ML	2018	A user-guided tool for semi-automated cerebral microbleed detection and volume segmentation: Evaluating vascular injury and data labelling for machine learning	Detection and classification
[168]	ML	2018	Feasibility of anatomical feature points for the estimation of prostate locations in the Bayesian delineation frameworks for prostate cancer radiotherapy	Detection and classification
[169]	ML	2018	Distinguishing True Progression From Radionecrosis After Stereotactic Radiation Therapy for Brain Metastases With Machine Learning and Radiomics	Detection and classification
[170]	DL	2019	Bone cancer identification and classification using hybrid fuzzy clustering with deep learning classification	Detection and classification
[171]	ML	2019	Classifying stage IV lung cancer from health care claims: A comparison of multiple analytic approaches	Detection and classification
[172]	ML	2019	Brain MRI classification based on machine learning framework with auto-context model	Detection and classification
[173]	ML	2019	Application of a machine learning method to whole brain white matter injury after radiotherapy for nasopharyngeal carcinoma	Detection and classification
[174]	DL	2020	Deep learning for automatic calcium scoring in CT: Validation using multiple cardiac CT and chest CT protocols	Detection and classification
[175]	ML	2020	Metabolic Fingerprinting on Synthetic Alloys for Medulloblastoma Diagnosis and Radiotherapy Evaluation	Detection and classification
[176]	ML	2020	Tissue Classification to Support Local Active Delineation of Brain Tumors	Detection and classification

[177]	ML	2020	Using Diffuse Reflectance Spectroscopy to Distinguish Tumor Tissue From Fibrosis in Rectal Cancer Patients as a Guide to Surgery	Detection and classification
[178]	ML	2020	Patient-specific PTV margins for liver stereotactic body radiation therapy determined using support vector classification with an early warning system for margin adaptation	Detection and classification
[179]	ML	2020	Non-invasive imaging prediction of tumor hypoxia: A novel developed and externally validated CT and FDG-PET-based radiomic signatures	Detection and classification
[180]	DL	2021	Automated detection of dental artifacts for large-scale radiomic analysis in radiation oncology	Detection and classification
[181]	DL	2021	Application of Pet-CT Fusion Deep Learning Imaging in Precise Radiotherapy of Thyroid Cancer	Detection and classification
[182]	ML	2021	Brain tumor detection: An application based on machine learning	Detection and classification
[183]	ML	2021	Stereotactic body radiation therapy for spinal metastases: A novel local control stratification by spinal region	Detection and classification
[184]	ML	2021	Differentiation of recurrent glioblastoma from radiation necrosis using diffusion radiomics with machine learning model development and external validation	Detection and Classification
[185]	ML	2021	Nearest Neighbor-Based Strategy to Optimize Multi-View Triplet Network for Classification of Small-Sample Medical Imaging Data	Detection and classification
[186]	ML	2021	Machine learning and registration for automatic seed localization in 3D US images for prostate brachytherapy	Detection and Classification
[187]	ML	2021	Image recognition of CT diagnosis for cholangiocarcinoma treatment based on FPGA processor and neural network	Detection and classification
[188]	DL	2018	Automated prediction of dosimetric eligibility of patients with prostate cancer undergoing intensity-modulated radiation therapy using a convolutional neural network	Dose prediction
[189]	ML	2018	An Ensemble Approach to Knowledge-Based Intensity-Modulated Radiation Therapy Planning	Dose prediction
[190]	ML	2018	Symbolic regression and feature construction with GP-GOMEA applied to radiotherapy dose reconstruction of childhood cancer survivors	Dose prediction
[191]	DL	2019	A deep learning method for prediction of three-dimensional dose distribution of helical tomotherapy	Dose prediction
[192]	DL	2019	Individualized 3D dose distribution prediction using deep learning	Dose prediction
[193]	DL	2019	3D radiotherapy dose prediction on head and neck cancer patients with a hierarchically densely connected U-net deep learning architecture	Dose prediction
[194]	DL	2019	Feasibility of CT-only 3D dose prediction for VMAT prostate plans using deep learning	Dose prediction
[195]	ML	2019	Prediction of skin dose in low-kV intraoperative radiotherapy using machine learning models trained on results of in vivo dosimetry	Dose prediction
[196]	ML	2019	A convolutional neural network approach for IMRT dose distribution prediction in prostate cancer patients	Dose prediction
[197]	DL	2020	High quality proton portal imaging using deep learning for proton radiation therapy: A phantom study	Dose prediction
[198]	DL	2020	Convolutional neural network-based dosimetry evaluation of esophageal radiation treatment planning	Dose prediction
[199]	DL	2020	Evaluation of optimization workflow using custom-made planning through predicted dose distribution for head and neck tumor treatment	Dose prediction

[200]	DL	2020	Dose prediction with deep learning for prostate cancer radiation therapy: Model adaptation to different treatment planning practices	Dose prediction
[201]	DL	2020	DoseGAN: a generative adversarial network for synthetic dose prediction using attention-gated discrimination and generation	Dose prediction
[202]	DL	2020	Using deep learning to model the biological dose prediction on bulky lung cancer patients of partial stereotactic ablation radiotherapy	Dose prediction
[203]	DL	2020	Fully automated dose prediction using generative adversarial networks in prostate cancer patients	Dose prediction
[204]	DL	2020	Fluence Map Prediction Using Deep Learning Models – Direct Plan Generation for Pancreas Stereotactic Body Radiation Therapy	Dose prediction
[205]	ML	2020	The importance of evaluating the complete automated knowledge-based planning pipeline	Dose prediction
[206]	ML	2020	The benefits evaluation of abdominal deep inspiration breath hold based on knowledge-based radiotherapy treatment planning for left-sided breast cancer	Dose Prediction
[207]	ML	2020	Development and evaluation of machine learning models for voxel dose predictions in online adaptive magnetic resonance guided radiation therapy	Dose prediction
[208]	DL	2021	Multi-constraint generative adversarial network for dose prediction in radiotherapy	Dose prediction
[209]	DL	2021	Development and evaluation of radiotherapy deep learning dose prediction models for breast cancer	Dose prediction
[210]	DL	2021	Deep learning dose prediction for IMRT of esophageal cancer: The effect of data quality and quantity on model performance	Dose prediction
[211]	DL	2021	DVHnet: A deep learning-based prediction of patient-specific dose volume histograms for radiotherapy planning	Dose prediction
[212]	DL	2021	DeepWL: Robust EPID based Winston-Lutz analysis using deep learning, synthetic image generation and optical path-tracing	Dose prediction
[213]	DL	2021	Deep learning prediction of proton and photon dose distributions for paediatric abdominal tumours	Dose prediction
[214]	DL	2021	Radiation therapy dose prediction for left-sided breast cancers using two-dimensional and three-dimensional deep learning models	Dose prediction
[215]	DL	2021	Deep learning-augmented radiotherapy visualization with a cylindrical radioluminescence system	Dose prediction
[216]	DL	2021	Deep learning-enabled EPID-based 3D dosimetry for dose verification of step-and-shoot radiotherapy	Dose prediction
[217]	DL	2021	Volumetric modulated arc therapy dose prediction and deliverable treatment plan generation for prostate cancer patients using a densely connected deep learning model	Dose prediction
[218]	DL	2021	Insights of an AI agent via analysis of prediction errors: A case study of fluence map prediction for radiation therapy planning	Dose prediction
[219]	DL	2021	Deep learning-based 3D in vivo dose reconstruction with an electronic portal imaging device for magnetic resonance-linear accelerators: a proof of concept study	Dose prediction
[220]	DL	2021	Technical Note: A cascade 3D U-Net for dose prediction in radiotherapy	Dose prediction
[221]	DL	2021	A feasibility study on deep learning-based individualized 3D dose distribution prediction	Dose prediction

[222]	DL	2021	Radiation dose prediction for pancreatic stereotactic body radiotherapy via convention neural networks	Dose prediction
[223]	DL	2021	Learning-based dose prediction for pancreatic stereotactic body radiation therapy using dual pyramid adversarial network	Dose prediction
[224]	DL	2021	A comparison of Monte Carlo dropout and bootstrap aggregation on the performance and uncertainty estimation in radiation therapy dose prediction with deep learning neural networks	Dose prediction
[225]	DL	2021	Deep Learning–Based Fluence Map Prediction for Pancreas Stereotactic Body Radiation Therapy With Simultaneous Integrated Boost	Dose prediction
[226]	DL	2021	Transfer learning for fluence map prediction in adrenal stereotactic body radiation therapy	Dose prediction
[227]	DL	2021	Dose Prediction Using a Three-Dimensional Convolutional Neural Network for Nasopharyngeal Carcinoma With Tomotherapy	Dose prediction
[228]	DL	2021	Utilizing pre-determined beam orientation information in dose prediction by 3D fully-connected network for intensity modulated radiotherapy	Dose prediction
[229]	ML	2021	OpenKBP: The open-access knowledge-based planning grand challenge and dataset	Dose prediction
[230]	ML	2021	Analysis of EPID Transmission Fluence Maps Using Machine Learning Models and CNN for Identifying Position Errors in the Treatment of GO Patients	Dose prediction
[231]	ML	2021	Evaluation of dose-volume histogram prediction for organ-at risk and planning target volume based on machine learning	Dose prediction
[232]	ML	2021	Mean parotid dose prediction model using machine learning regression method for intensity-modulated radiotherapy in head and neck cancer	Dose prediction
[233]	ML	2021	Detecting MLC modeling errors using radiomics-based machine learning in patient-specific QA with an EPID for intensity-modulated radiation therapy	Dose prediction
[234]	ML	2021	Evaluation approach for whole dose distribution in clinical cases using spherical projection and spherical harmonics expansion: spherical coefficient tensor and score method	Dose prediction
[235]	ML	2021	Radiomics analysis of EPID measurements for patient positioning error detection in thyroid associated ophthalmopathy radiotherapy	Dose prediction
[236]	ML	2021	Technical Note: Dose prediction for radiation therapy using feature-based losses and One Cycle Learning	Dose Prediction
[237]	DL	2018	Quality Assessment of Transperineal Ultrasound Images of the Male Pelvic Region Using Deep Learning	Motion
[238]	DL	2018	ScatterNet: A convolutional neural network for cone-beam CT intensity correction	Synthetic image generation
[239]	DL	2019	Paired cycle-GAN-based image correction for quantitative cone-beam computed tomography	Synthetic image generation
[240]	DL	2019	Self-consistent deep learning-based boosting of 4D cone-beam computed tomography reconstruction	Synthetic image generation
[241]	DL	2019	Projection-domain scatter correction for cone beam computed tomography using a residual convolutional neural network	Synthetic image generation
[242]	DL	2020	Evaluation of CBCT scatter correction using deep convolutional neural networks for head and neck adaptive proton therapy	Synthetic image generation

[243]	DL	2020	AirNet: Fused analytical and iterative reconstruction with deep neural network regularization for sparse-data CT	Synthetic image generation
[244]	DL	2020	Study of low-dose PET image recovery using supervised learning with CycleGAN	Synthetic image generation
[245]	DL	2021	Enhancing digital tomosynthesis (DTS) for lung radiotherapy guidance using patient-specific deep learning model	Synthetic image generation
[246]	DL	2021	Respiratory-correlated 4D digital tomosynthesis with deep convolutional neural networks for image-guided radiation therapy	Synthetic image generation
[247]	DL	2021	Feasibility of Brain Imaging Using a Digital Surround Technology Body Coil: A Study Based on SRGAN-VGG Convolutional Neural Networks	Synthetic image generation
[248]	DL	2021	Deep learning-based thoracic CBCT correction with histogram matching	Synthetic image generation
[249]	DL	2021	Building a patient-specific model using transfer learning for four-dimensional cone beam computed tomography augmentation	Synthetic image generation
[250]	DL	2018	GDL-FIRE4D: Deep learning-based fast 4D CT image registration	Image registration
[251]	DL	2019	Real-Time 2D-3D Deformable Registration with Deep Learning and Application to Lung Radiotherapy Targeting	Image registration
[252]	DL	2019	Closing the Gap Between Deep and Conventional Image Registration Using Probabilistic Dense Displacement Networks	Image registration
[253]	DL	2019	A modality conversion approach to MV-DRs and KV-DRRs registration using information bottlenecked conditional generative adversarial network	Image registration
[254]	DL	2020	Fast contour propagation for MR-guided prostate radiotherapy using convolutional neural networks	Image registration
[255]	DL	2020	4D-CT deformable image registration using multiscale unsupervised deep learning	Image registration
[256]	DL	2020	Label-driven magnetic resonance imaging (MRI)-transrectal ultrasound (TRUS) registration using weakly supervised learning for MRI-guided prostate radiotherapy	Image registration
[257]	ML	2020	Data clustering to select clinically-relevant test cases for algorithm benchmarking and characterization	Image registration
[258]	DL	2021	Evaluation of a Learning-based Deformable Registration Method on Abdominal CT Images	Image registration
[259]	DL	2021	A learning-based nonrigid MRI-CBCT image registration method for MRI-guided prostate cancer radiotherapy	Image registration
[260]	DL	2021	Deformable MRI-CT liver image registration using convolutional neural network with modality independent neighborhood descriptors	Image registration
[261]	DL	2021	Deformable MR-CBCT prostate registration using biomechanically constrained deep learning networks	Image registration
[262]	DL	2021	CT-MRI pelvic deformable registration via deep learning	Image registration
[263]	DL	2021	Deep learning-based deformable MRI-CBCT registration of male pelvic region	Image registration
[264]	DL	2021	Preliminary Feasibility Study of Imaging Registration between Supine and Prone Breast CT in Breast Cancer Radiotherapy Using Residual Recursive Cascaded Networks	Image registration
[265]	DL	2021	Few-shot learning for deformable image registration in 4DCT images	image registration

[266]	DL	2021	Semi-supervised deep learning-based image registration method with volume penalty for real-time breast tumor bed localization	Image registration
[267]	DL	2018	Fully automated organ segmentation in male pelvic CT images	Image segmentation
[268]	DL	2018	Deep Learning Algorithm for Auto-Delineation of High-Risk Oropharyngeal Clinical Target Volumes With Built-In Dice Similarity Coefficient Parameter Optimization Function	Image segmentation
[269]	DL	2018	Automatic detection and segmentation of brain metastases on multimodal MR images with a deep convolutional neural network	Image segmentation
[270]	DL	2018	Deep-learning based surface region selection for deep inspiration breath hold (DIBH) monitoring in left breast cancer radiotherapy	Motion
[271]	DL	2018	Heart chamber segmentation from CT using convolutional neural networks	Image segmentation
[272]	DL	2018	Automatic Segmentation and 3D Reconstruction of Spine Based on FCN and Marching Cubes in CT Volumes	Image segmentation
[273]	DL	2018	Semi-supervised learning for pelvic MR image segmentation based on multi-task residual fully convolutional networks	Image segmentation
[274]	DL	2018	A novel MRI segmentation method using CNN-based correction network for MRI-guided adaptive radiotherapy	Image segmentation
[275]	DL	2018	Comparison of different deep learning approaches for parotid gland segmentation from CT images	Image segmentation
[276]	DL	2018	Autosegmentation for thoracic radiation treatment planning: A grand challenge at AAPM 2017	Image segmentation
[277]	DL	2018	Multi-organ Segmentation of Chest CT Images in Radiation Oncology: Comparison of Standard and Dilated UNet	Image segmentation
[278]	DL	2018	On the effect of inter-observer variability for a reliable estimation of uncertainty of medical image segmentation	Image segmentation
[279]	DL	2018	Segmentation of the prostate and organs at risk in male pelvic CT images using deep learning	Image segmentation
[280]	DL	2018	A Novel Deep Learning Framework for Internal Gross Target Volume Definition from 4D Computed Tomography of Lung Cancer Patients	Image segmentation
[281]	DL	2018	Clinical evaluation of atlas and deep learning based automatic contouring for lung cancer	Image segmentation
[282]	DL	2018	Fully automatic and robust segmentation of the clinical target volume for radiotherapy of breast cancer using big data and deep learning	Image segmentation
[283]	DL	2018	Organ-At-Risk Segmentation in Brain MRI Using Model-Based Segmentation: Benefits of Deep Learning-Based Boundary Detectors	Image segmentation
[284]	DL	2018	Technical Note: A deep learning-based autosegmentation of rectal tumors in MR images	Image segmentation
[285]	DL	2018	Fine-Grained Segmentation Using Hierarchical Dilated Neural Networks	Image segmentation
[286]	ML	2018	Autosegmentation of prostate anatomy for radiation treatment planning using deep decision forests of radiomic features	Image segmentation
[287]	ML	2018	Bayesian delineation framework of clinical target volumes for prostate cancer radiotherapy using an anatomical-features-based machine learning technique	Image segmentation

[288]	ML	2018	Automated brain tumor segmentation on magnetic resonance images and patient's overall survival prediction using support vector machines	Image segmentation
[289]	ML	2018	Detection of Lung Contour with Closed Principal Curve and Machine Learning	Image segmentation
[290]	ML	2018	NeXt for neuro-radiosurgery: A fully automatic approach for necrosis extraction in brain tumor MRI using an unsupervised machine learning technique	Image segmentation
[291]	DL	2019	Convolutional-neural-network-based feature extraction for liver segmentation from CT images	Image segmentation
[292]	DL	2019	Comparative clinical evaluation of atlas and deep-learning-based auto-segmentation of organ structures in liver cancer	Image segmentation
[293]	DL	2019	Two-stage network for oar segmentation state	Image segmentation
[294]	DL	2019	Automatic multiorgan segmentation in thorax CT images using U-net-GAN	Image segmentation
[295]	DL	2019	Deep learning-based auto-segmentation of targets and organs-at-risk for magnetic resonance imaging only planning of prostate radiotherapy	Image segmentation
[296]	DL	2019	Adversarial Optimization for Joint Registration and Segmentation in Prostate CT Radiotherapy	Image segmentation
[297]	DL	2019	Deep generative model-driven multimodal prostate segmentation in radiotherapy	Image segmentation
[298]	DL	2019	Automatic multi-modality segmentation of gross tumor volume for head and neck cancer radiotherapy using 3D U-Net	Image segmentation
[299]	DL	2019	Gross tumor volume segmentation for head and neck cancer radiotherapy using deep dense multi-modality network	Image segmentation
[300]	DL	2019	Large-scale evaluation of V-Net for organ segmentation in image guided radiation therapy	Image segmentation
[301]	DL	2019	Artifact-driven sampling schemes for robust female pelvis CBCT segmentation using deep learning	Image segmentation
[302]	DL	2019	Evaluation of deep learning methods for parotid gland segmentation from CT images	Image segmentation
[303]	DL	2019	Cardio-pulmonary substructure segmentation of CT images using convolutional neural networks	Image segmentation
[304]	DL	2018	Pelvic Organ Segmentation Using Distinctive Curve Guided Fully Convolutional Networks	Image segmentation
[305]	DL	2019	Multi-modal MRI segmentation of sarcoma tumors using convolutional neural networks	Image segmentation
[306]	DL	2019	Semantic segmentation of computed tomography for radiotherapy with deep learning: Compensating insufficient annotation quality using contour augmentation	Image segmentation
[307]	DL	2019	Cross-modality (CT-MRI) prior augmented deep learning for robust lung tumor segmentation from small MR datasets	Image segmentation
[308]	DL	2019	Segmentation of organs at risk on head and neck CT for radiotherapy based on 3D deep residual fully convolutional neural network	Image segmentation
[309]	DL	2019	DeepIGeoS-V2: Deep interactive segmentation of multiple organs from head and neck images with lightweight CNNs	Image segmentation
[310]	DL	2019	Automatic multi-organ segmentation in thorax CT images using U-Net-GAN	Image segmentation
[311]	DL	2019	Ultrasound prostate segmentation based on multidirectional deeply supervised V-Net	Image segmentation

[312]	DL	2019	The Tumor Target Segmentation of Nasopharyngeal Cancer in CT Images Based on Deep Learning Methods	Image segmentation
[313]	DL	2019	Deep-learning-based detection and segmentation of organs at risk in nasopharyngeal carcinoma computed tomographic images for radiotherapy planning	Image segmentation
[314]	DL	2019	Deep learning for automated contouring of primary tumor volumes by MRI for nasopharyngeal carcinoma	Image segmentation
[315]	DL	2019	Use of Crowd Innovation to Develop an Artificial Intelligence-Based Solution for Radiation Therapy Targeting	Image segmentation
[316]	DL	2019	Segmentation of Organs at Risk in Chest Cavity Using 3D Deep Neural Network	Image segmentation
[317]	DL	2019	Deep Learning Improved Clinical Target Volume Contouring Quality and Efficiency for Postoperative Radiation Therapy in Non-small Cell Lung Cancer	Image segmentation
[318]	DL	2019	Prostate Segmentation via Fusing the Nested-V-net3d and V-net2d	Image segmentation
[319]	DL	2019	Deep learning derived tumor infiltration maps for personalized target definition in Glioblastoma radiotherapy	Image segmentation
[320]	DL	2019	A fully automatic framework to localize esophageal tumor for radiation therapy	Image segmentation
[321]	DL	2019	A Full-Image Deep Segmenter for CT Images in Breast Cancer Radiotherapy Treatment	Image segmentation
[322]	DL	2019	Automatic liver segmentation with CT images based on 3D U-net deep learning approach	Image segmentation
[323]	DL	2019	Multi-organ segmentation of the head and neck area: an efficient hierarchical neural networks approach	Image segmentation
[324]	DL	2019	Multiorgan segmentation using distance-aware adversarial networks	Image segmentation
[325]	DL	2019	Dual-energy CT for automatic organs-at-risk segmentation in brain-tumor patients using a multi-atlas and deep-learning approach	Image segmentation
[326]	DL	2019	Benefits of deep learning for delineation of organs at risk in head and neck cancer	Image segmentation
[327]	DL	2019	Deep Learning-Based Delineation of Head and Neck Organs at Risk: Geometric and Dosimetric Evaluation	Image segmentation
[328]	DL	2019	A 2D dilated residual U-net for multi-organ segmentation in thoracic CT	Image segmentation
[329]	DL	2019	Automatical Segmentation of Pelvic Organs after Hysterectomy by using Dilated Convolution U-Net++	Image segmentation
[330]	DL	2019	Synthetic MRI-aided multi-organ segmentation on male pelvic CT using cycle consistent deep attention network	Image segmentation
[331]	DL	2019	Segmentation of venous vessel in MRI using transferred convolutional neural network	Image segmentation
[332]	DL	2019	Fully automatic catheter segmentation in MRI with 3D convolutional neural networks: Application to MRI-guided gynecologic brachytherapy	Image segmentation
[333]	DL	2019	Boosting-based cascaded convolutional neural networks for the segmentation of CT organs-at-risk in nasopharyngeal carcinoma	Image segmentation
[334]	DL	2019	AnatomyNet: Deep learning for fast and fully automated whole-volume segmentation of head and neck anatomy	Image segmentation
[335]	ML	2019	Semi-automatic segmentation of MRI brain metastases combining support vector machine and morphological operators	Image segmentation

[336]	ML	2019	Investigating the behaviour of machine learning techniques to segment brain metastases in radiation therapy planning	Image segmentation
[337]	DL	2020	Library of deep-learning image segmentation and outcomes model-implementations	Image segmentation
[338]	DL	2020	Deep Learning-based Automated Delineation of Head and Neck Malignant Lesions from PET Images	Image segmentation
[339]	DL	2020	Assessment of manual adjustment performed in clinical practice following deep learning contouring for head and neck organs at risk in radiotherapy	Image segmentation
[340]	DL	2020	External validation of deep learning-based contouring of head and neck organs at risk	Image segmentation
[341]	DL	2020	Automatic Quality Assessment of Transperineal Ultrasound Images of the Male Pelvic Region, Using Deep Learning	Motion
[342]	DL	2020	Deep learning vs. atlas-based models for fast auto-segmentation of the masticatory muscles on head and neck CT images	Image segmentation
[343]	DL	2020	CNN-Based Quality Assurance for Automatic Segmentation of Breast Cancer in Radiotherapy	Image segmentation
[344]	DL	2020	Fully automated multiorgan segmentation in abdominal magnetic resonance imaging with deep neural networks	Image segmentation
[345]	DL	2020	Automatic intraprostatic lesion segmentation in multiparametric magnetic resonance images with proposed multiple branch UNet	Image segmentation
[346]	DL	2020	Deep learning-based medical image segmentation with limited labels	Image segmentation
[347]	DL	2020	Automatic contouring system for cervical cancer using convolutional neural networks	Image segmentation
[348]	DL	2020	Superpixel-based deep convolutional neural networks and active contour model for automatic prostate segmentation on 3D MRI scans	Image segmentation
[349]	DL	2020	Esophagus segmentation from planning CT images using an atlas-based deep learning approach	Image segmentation
[350]	DL	2020	MRF-RFS: A Modified Random Forest Recursive Feature Selection Algorithm for Nasopharyngeal Carcinoma Segmentation	Image segmentation
[351]	DL	2020	Pelvic multi-organ segmentation on cone-beam CT for prostate adaptive radiotherapy	Image segmentation
[352]	DL	2020	Automatic brain organ segmentation with 3d fully convolutional neural network for radiation therapy treatment planning	Image segmentation
[353]	DL	2020	Hippocampus segmentation in CT using deep learning: Impact of MR versus CT-based training contours	Image segmentation
[354]	DL	2020	Cardio-pulmonary substructure segmentation of radiotherapy computed tomography images using convolutional neural networks for clinical outcomes analysis	Image segmentation
[355]	DL	2020	Automatic tumor segmentation in PET by deep convolutional U-Net with pre-trained encoder	Image segmentation
[356]	DL	2020	Based on DICOM RT Structure and Multiple Loss Function Deep Learning Algorithm in Organ Segmentation of Head and Neck Image	Image segmentation
[357]	DL	2020	Automated hepatobiliary toxicity prediction after liver stereotactic body radiation therapy with deep learning-based portal vein segmentation	Image segmentation

[358]	DL	2020	Deep learning for elective neck delineation: More consistent and time efficient	Image segmentation
[359]	DL	2020	Evaluation of Automatic Segmentation Model With Dosimetric Metrics for Radiotherapy of Esophageal Cancer	Image segmentation
[360]	DL	2020	A Cascaded Deep-Learning Framework for Segmentation of Metastatic Brain Tumors before and after Stereotactic Radiation Therapy	Image segmentation
[361]	DL	2020	Automatic liver segmentation in abdominal CT images using combined 2.5D and 3D segmentation networks with high-score shape prior for radiotherapy treatment planning	Image segmentation
[362]	DL	2020	Development of a self-constrained 3D DenseNet model in automatic detection and segmentation of nasopharyngeal carcinoma using magnetic resonance images	Image segmentation
[363]	DL	2020	A deep learning-based automated CT segmentation of prostate cancer anatomy for radiation therapy planning-a retrospective multicenter study	Image segmentation
[364]	DL	2020	Training and validation of a commercial deep learning contouring platform	Image segmentation
[365]	DL	2020	Cross-domain data augmentation for deep-learning-based male pelvic organ segmentation in cone beam CT	Image segmentation
[366]	DL	2020	Multi-organ segmentation in pelvic CT images with CT-based synthetic MRI	Image segmentation
[367]	DL	2020	A physics-guided modular deep-learning based automated framework for tumor segmentation in PET	Image segmentation
[368]	DL	2020	Multi-View Spatial Aggregation Framework for Joint Localization and Segmentation of Organs at Risk in Head and Neck CT Images	Image segmentation
[369]	DL	2020	A deep learning framework for prostate localization in cone beam CT-guided radiotherapy	Image segmentation
[370]	DL	2020	Rectum Segmentation in Brachytherapy Dataset Using Recurrent Network	Image segmentation
[371]	DL	2020	CT-based multi-organ segmentation using a 3D self-attention U-net network for pancreatic radiotherapy	Image segmentation
[372]	DL	2020	Development and validation of a deep learning algorithm for auto-delineation of clinical target volume and organs at risk in cervical cancer radiotherapy	Image segmentation
[373]	DL	2020	Anatomically consistent CNN-based segmentation of organs-at-risk in cranial radiotherapy	Image segmentation
[374]	DL	2020	Incorporating sensitive cardiac substructure sparing into radiation therapy planning	Image segmentation
[375]	DL	2020	Cardiac substructure segmentation with deep learning for improved cardiac sparing	Image segmentation
[376]	DL	2020	Efficacy evaluation of 2D, 3D U-Net semantic segmentation and atlas-based segmentation of normal lungs excluding the trachea and main bronchi	Image segmentation
[377]	DL	2020	Simple low-cost approaches to semantic segmentation in radiation therapy planning for prostate cancer using deep learning with non-contrast planning CT images	Image segmentation
[378]	DL	2020	Evaluation of a multiview architecture for automatic vertebral labeling of palliative radiotherapy simulation CT images	Image segmentation
[379]	DL	2020	A method of rapid quantification of patient-specific organ doses for CT using deep-learning-based multi-organ segmentation and GPU-accelerated Monte Carlo dose computing	Image segmentation
[380]	DL	2020	Hippocampus segmentation on noncontrast CT using deep learning	Image segmentation
[381]	DL	2020	Hybrid 3D-ResNet deep learning model for automatic segmentation of thoracic organs at risk in CT images	Image segmentation

[382]	DL	2020	Clinical implementation of MRI-based organs-at-risk auto-segmentation with convolutional networks for prostate radiotherapy	Image segmentation
[383]	DL	2020	Clinical evaluation of a full-image deep segmentation algorithm for the male pelvis on cone-beam CT and CT	Image segmentation
[384]	DL	2020	Deep learning for brain tumor segmentation in radiosurgery: prospective clinical evaluation	Image segmentation
[385]	DL	2020	Automatic delineation of the clinical target volume and organs at risk by deep learning for rectal cancer postoperative radiotherapy	Image segmentation
[386]	DL	2020	Automatic Liver and Spleen Segmentation with CT Images Using Multi-channel U-net Deep Learning Approach	Image segmentation
[387]	DL	2020	Attentionanatomy: A Unified Framework for Whole-Body Organs at Risk Segmentation Using Multiple Partially Annotated Datasets	Image segmentation
[388]	DL	2020	Postoperative glioma segmentation in CT image using deep feature fusion model guided by multi-sequence MRIs	Image segmentation
[389]	DL	2020	Whole liver segmentation based on deep learning and manual adjustment for clinical use in SIRT	Image segmentation
[390]	DL	2020	Training of head and neck segmentation networks with shape prior on small datasets	Image segmentation
[391]	DL	2020	Evaluation of measures for assessing time-saving of automatic organ-at-risk segmentation in radiotherapy	Image segmentation
[392]	DL	2020	Improving automatic delineation for head and neck organs at risk by Deep Learning Contouring	Image segmentation
[393]	DL	2020	Complete abdomen and pelvis segmentation using U-net variant architecture	Image segmentation
[394]	DL	2020	Comparing deep learning-based auto-segmentation of organs at risk and clinical target volumes to expert inter-observer variability in radiotherapy planning	Image segmentation
[395]	DL	2020	Deep-learning-based Detection and Segmentation of Organs at Risk in Head and Neck	Image segmentation
[396]	DL	2020	Deep learning-based detection and segmentation-assisted management of brain metastases	Image segmentation
[397]	DL	2020	Sequential and Iterative Auto-Segmentation of High-Risk Clinical Target Volume for Radiotherapy of Nasopharyngeal Carcinoma in Planning CT Images	Image segmentation
[398]	DL	2020	Auto-segmentation of pancreatic tumor in multi-parametric MRI using deep convolutional neural networks	Image segmentation
[399]	DL	2020	Segmentation of organs at risk in nasopharyngeal cancer for radiotherapy using a self-adaptive Unet network	Image segmentation
[400]	DL	2020	Deep-Learning Detection of Cancer Metastases to the Brain on MRI	Detection and classification
[401]	DL	2020	Automatic Segmentation of Multiple Organs on 3D CT Images by Using Deep Learning Approaches	Image segmentation
[402]	ML	2020	Development of a new fully three-dimensional methodology for tumours delineation in functional images	Image segmentation
[403]	ML	2020	Multi-atlas–based auto-segmentation for prostatic urethra using novel prediction of deformable image registration accuracy	Image segmentation
[404]	ML	2020	Automatic evaluation of contours in radiotherapy planning utilising conformity indices and machine learning	Image segmentation
[405]	DL	2021	PSA-Net: Deep learning-based physician style-aware segmentation network for postoperative prostate cancer clinical target volumes	Image segmentation

[406]	DL	2021	RootPainter3D: Interactive-machine-learning enables rapid and accurate contouring for radiotherapy	Image segmentation
[407]	DL	2021	A Deep Learning Model to Automate Skeletal Muscle Area Measurement on Computed Tomography Images	Image segmentation
[408]	DL	2021	Simple Python Module for Conversions Between DICOM Images and Radiation Therapy Structures, Masks, and Prediction Arrays	Image segmentation
[409]	DL	2021	Accelerating 3D Medical Image Segmentation by Adaptive Small-Scale Target Localization,	Image segmentation
[410]	DL	2021	A deep learning approach to segmentation of nasopharyngeal carcinoma using computed tomography	Image segmentation
[411]	DL	2021	A deep learning-based framework for segmenting invisible clinical target volumes with estimated uncertainties for post-operative prostate cancer radiotherapy	Image segmentation
[412]	DL	2021	Automatic 3D Ultrasound Segmentation of Uterus Using Deep Learning	Image segmentation
[413]	DL	2021	Evaluation of deep learning-based autosegmentation in breast cancer radiotherapy	Image segmentation
[414]	DL	2021	Combining Images and T-Staging Information to Improve the Automatic Segmentation of Nasopharyngeal Carcinoma Tumors in MR Images	Image segmentation
[415]	DL	2021	Clinical Target Volume Auto-Segmentation of Esophageal Cancer for Radiotherapy After Radical Surgery Based on Deep Learning	Image segmentation
[416]	DL	2021	Cascaded SE-ResUnet for segmentation of thoracic organs at risk	Image segmentation
[417]	DL	2021	Generating High-Quality Lymph Node Clinical Target Volumes for Head and Neck Cancer Radiation Therapy Using a Fully Automated Deep Learning-Based Approach	Image segmentation
[418]	DL	2021	BrainTumorNet: Multi-task learning for joint segmentation of high-grade glioma and brain metastases from MR images	Image segmentation
[419]	DL	2021	Image Segmentation in 3D Brachytherapy Using Convolutional LSTM	Image segmentation
[420]	DL	2021	A comparative study of auto-contouring softwares in delineation of organs at risk in lung cancer and rectal cancer	Image segmentation
[421]	DL	2021	A deep learning-based auto-segmentation system for organs-at-risk on whole-body computed tomography images for radiation therapy	Image segmentation
[422]	DL	2021	A deep-learning method for generating synthetic kV-CT and improving tumor segmentation for helical tomotherapy of nasopharyngeal carcinoma	Image segmentation
[423]	DL	2021	Clinical evaluation of atlas- and deep learning-based automatic segmentation of multiple organs and clinical target volumes for breast cancer	Image segmentation
[424]	DL	2021	Clinical feasibility of deep learning-based auto-segmentation of target volumes and organs-at-risk in breast cancer patients after breast-conserving surgery	Image segmentation
[425]	DL	2021	Deep learning-based methods for prostate segmentation in magnetic resonance imaging	Image segmentation
[426]	DL	2021	Machine-assisted interpolation algorithm for semi-automated segmentation of highly deformable organs	Image segmentation
[427]	DL	2021	Learning rich features with hybrid loss for brain tumor segmentation	Image segmentation
[428]	DL	2021	Improved U-Net based on contour prediction for efficient segmentation of rectal cancer	Image segmentation

[429]	DL	2021	Multitask 3D CBCT-to-CT translation and organs-at-risk segmentation using physics-based data augmentation	Image segmentation
[430]	DL	2021	Region proposal network for multi-organ segmentation in CT for pancreatic radiotherapy	Image segmentation
[431]	DL	2021	Residual mask scoring regional convolutional neural network for multi-organ segmentation in head-And-neck CT	Image segmentation
[432]	DL	2021	Synthetic CT-aided multiorgan segmentation for CBCT-guided adaptive pancreatic radiotherapy	Image segmentation
[433]	DL	2021	Many Layer Transfer Learning Genetic Algorithm (MLTLGA): A New Evolutionary Transfer Learning Approach Applied To Pneumonia Classification	Detection and classification
[434]	DL	2021	Domain adversarial networks and intensity-based data augmentation for male pelvic organ segmentation in cone beam CT	Image segmentation
[435]	DL	2021	The impact of training sample size on deep learning-based organ auto-segmentation for head-and-neck patients	Image segmentation
[436]	DL	2021	Segmentation of male pelvic organs on computed tomography with a deep neural network fine-tuned by a level-set method	Image segmentation
[437]	DL	2021	Automatic segmentation of lung tumors on CT images based on a 2D & 3D hybrid convolutional neural network	Image segmentation
[438]	DL	2021	A novel semi auto-segmentation method for accurate dose and NTCP evaluation in adaptive head and neck radiotherapy	Image segmentation
[439]	DL	2021	Deep learning model for automatic contouring of cardiovascular substructures on radiotherapy planning CT images: Dosimetric validation and reader study based clinical acceptability testing	Image segmentation
[440]	DL	2021	Semi-automatic sigmoid colon segmentation in CT for radiation therapy treatment planning via an iterative 2.5-D deep learning approach	Image segmentation
[441]	DL	2021	A comparison of methods for fully automatic segmentation of tumors and involved nodes in PET/CT of head and neck cancers	Image segmentation
[442]	DL	2021	The dosimetric impact of deep learning-based auto-segmentation of organs at risk on nasopharyngeal and rectal cancer	Image segmentation
[443]	DL	2021	An evaluation of MR based deep learning auto-contouring for planning head and neck radiotherapy	Image segmentation
[444]	DL	2021	Feasibility of Evaluating Result of Auto-segmentation of Target Volumes in Radiotherapy with Medical Consideration Index	Image segmentation
[445]	DL	2021	Automatic segmentation of brain metastases using T1 magnetic resonance and computed tomography images	Image segmentation
[446]	DL	2021	3-D RoI-Aware U-Net for accurate and efficient colorectal tumor segmentation	Image segmentation
[447]	DL	2021	Automatic delineation of cardiac substructures using a region-based fully convolutional network	Image segmentation
[448]	DL	2021	Computer-aided segmentation on MRI for prostate radiotherapy, part II: Comparing human and computer observer populations and the influence of annotator variability on algorithm variability	Image segmentation
[449]	DL	2021	AttR2U-Net: A Fully Automated Model for MRI Nasopharyngeal Carcinoma Segmentation Based on Spatial Attention and Residual Recurrent Convolution	Image segmentation

[450]	DL	2021	Deep learning-based classification and structure name standardization for organ at risk and target delineations in prostate cancer radiotherapy	Image segmentation
[451]	DL	2021	Evaluation on auto-segmentation of the clinical target volume (Ctv) for graves' ophthalmopathy (go) with a fully convolutional network (fcn) on ct images	Image segmentation
[452]	DL	2021	Deep cross-modality (MR-CT) educed distillation learning for cone beam CT lung tumor segmentation	Image segmentation
[453]	DL	2021	Robustness of deep learning segmentation of cardiac substructures in noncontrast computed tomography for breast cancer radiotherapy	Image segmentation
[454]	DL	2021	Automatic contour segmentation of cervical cancer using artificial intelligence	Image segmentation
[455]	DL	2021	Saliency-guided deep learning network for automatic tumor bed volume delineation in post-operative breast irradiation	Image segmentation
[456]	DL	2021	Cross-modality deep learning: Contouring of MRI data from annotated CT data only	Image segmentation
[457]	DL	2021	Feasibility of Continual Deep Learning-Based Segmentation for Personalized Adaptive Radiation Therapy in Head and Neck Area	Image segmentation
[458]	DL	2021	Cascaded deep learning-based auto-segmentation for head and neck cancer patients: Organs at risk on T2-weighted magnetic resonance imaging	Image segmentation
[459]	DL	2021	Comparison of ASM and CNN based prostate segmentation in CT images	Image segmentation
[460]	DL	2021	Automatic Segmentation of Brain Structures for Treatment Planning Optimization and Target Volume Definition	Image segmentation
[461]	DL	2021	Mask R-CNN-based tumor localization and segmentation in 4D Lung CT	Image segmentation
[462]	DL	2021	Segmenting thoracic cavities with neoplastic lesions: A head-to-head benchmark with fully convolutional neural networks	Image segmentation
[463]	DL	2021	Fully automated segmentation of brain tumor from multiparametric MRI using 3D context deep supervised U-Net	Image segmentation
[464]	DL	2021	Multiview Self-Supervised Segmentation for OARs Delineation in Radiotherapy	Image segmentation
[465]	DL	2021	Automated post-operative brain tumour segmentation: A deep learning model based on transfer learning from pre-operative images	Image segmentation
[466]	DL	2021	Esophagus Segmentation in CT Images via Spatial Attention Network and STAPLE Algorithm	Image segmentation
[467]	DL	2021	Coarse-To-Fine Segmentation of Organs at Risk in Nasopharyngeal Carcinoma Radiotherapy	Image segmentation
[468]	DL	2021	Deep Rectum Segmentation for Image Guided Radiation Therapy with Synthetic Data	Image segmentation
[469]	DL	2021	Prostate and dominant intraprostatic lesion segmentation on PET/CT using cascaded regional-net	Image segmentation
[470]	DL	2021	Automatic radiotherapy delineation quality assurance on prostate MRI with deep learning in a multicentre clinical trial	Image segmentation
[471]	DL	2021	Deep learning-based auto-delineation of gross tumour volumes and involved nodes in PET/CT images of head and neck cancer patients	Image segmentation

[472]	DL	2021	Lung tumor segmentation in 4D CT images using motion convolutional neural networks	Image segmentation
[473]	DL	2021	Quantifying inter-fraction cardiac substructure displacement during radiotherapy via magnetic resonance imaging guidance	Image segmentation
[474]	DL	2021	Tumor Segmentation in Patients with Head and Neck Cancers Using Deep Learning Based-on Multi-modality PET/CT Images	Image segmentation
[475]	DL	2021	Automated and robust organ segmentation for 3D-based internal dose calculation	Image segmentation
[476]	DL	2021	Effects of sample size and data augmentation on U-Net-based automatic segmentation of various organs	Image segmentation
[477]	DL	2021	Continuous-Time Deep Glioma Growth Models	Image segmentation
[478]	DL	2021	The predictive value of segmentation metrics on dosimetry in organs at risk of the brain	Image segmentation
[479]	DL	2021	Segmentation of low-grade gliomas using U-Net VGG16 with transfer learning	Image segmentation
[480]	DL	2021	Investigation of a Novel Deep Learning-Based Computed Tomography Perfusion Mapping Framework for Functional Lung Avoidance Radiotherapy	Image segmentation
[481]	DL	2021	Comparing different CT, PET and MRI multi-modality image combinations for deep learning-based head and neck tumor segmentation	Image segmentation
[482]	DL	2021	Automatic Segmentation Using Deep Learning to Enable Online Dose Optimization During Adaptive Radiation Therapy of Cervical Cancer	Image segmentation
[483]	DL	2021	Oropharyngeal primary tumor segmentation for radiotherapy planning on magnetic resonance imaging using deep learning	Image segmentation
[484]	DL	2021	Deep-learning-based segmentation of organs-at-risk in the head for MR-assisted radiation therapy planning	Image segmentation
[485]	DL	2021	AI-Based Quantification of Planned Radiation Therapy Dose to Cardiac Structures and Coronary Arteries in Patients With Breast Cancer	Image segmentation
[486]	DL	2021	Adaptive Attention Convolutional Neural Network for Liver Tumor Segmentation	Image segmentation
[487]	DL	2021	A slice classification model-facilitated 3D encoder-decoder network for segmenting organs at risk in head and neck cancer	Image segmentation
[488]	DL	2021	Automatic clinical target volume delineation for cervical cancer in CT images using deep learning	Image segmentation
[489]	DL	2021	Deep learning-based GTV contouring modeling inter- and intra- observer variability in sarcomas	Image segmentation
[490]	DL	2021	Deep Learning and Improved Particle Swarm Optimization Based Multimodal Brain Tumor Classication	Detection and classification
[491]	DL	2021	DA-DSUnet: Dual Attention-based Dense SU-net for automatic head-and-neck tumor segmentation in MRI images	Image segmentation
[492]	DL	2021	Using Auto-Segmentation to Reduce Contouring and Dose Inconsistency in Clinical Trials: The Simulated Impact on RTOG 0617	Image segmentation
[493]	DL	2021	Deep learning auto-segmentation and automated treatment planning for trismus risk reduction in head and neck cancer radiotherapy	Image segmentation
[494]	DL	2021	Evaluation of auto-segmentation accuracy of cloud-based artificial intelligence and atlas-based models	Image segmentation

[495]	DL	2021	Multi-organ segmentation on head and neck dual-energy CT using Deep Neural Networks	Image segmentation
[496]	DL	2021	Head and neck multi-organ segmentation on dual-energy CT using dual pyramid convolutional neural networks	Image segmentation
[497]	DL	2021	Deep Learning-Augmented Head and Neck Organs at Risk Segmentation From CT Volumes	Image segmentation
[498]	DL	2021	Training and Validation of Deep Learning-Based Auto-Segmentation Models for Lung Stereotactic Ablative Radiotherapy Using Retrospective Radiotherapy Planning Contours	Image segmentation
[499]	DL	2021	Implementation of deep learning-based auto-segmentation for radiotherapy planning structures: a workflow study at two cancer centers	Image segmentation
[500]	DL	2021	Deep learning-based segmentation of various brain lesions for radiosurgery	Image segmentation
[501]	DL	2021	RefineNet-based automatic delineation of the clinical target volume and organs at risk for three-dimensional brachytherapy for cervical cancer	Image segmentation
[502]	DL	2021	Multi-Institutional Validation of Two-Streamed Deep Learning Method for Automated Delineation of Esophageal Gross Tumor Volume Using Planning CT and FDG-PET/CT	Image segmentation
[503]	DL	2021	Application of Deep Convolution Network to Automated Image Segmentation of Chest CT for Patients With Tumor	Image segmentation
[504]	DL	2021	Prior information guided auto-contouring of breast gland for deformable image registration in postoperative breast cancer radiotherapy	Image segmentation
[505]	DL	2021	Asymmetric multi-task attention network for prostate bed segmentation in computed tomography images	Image segmentation
[506]	DL	2021	Clinical application and improvement of a CNN-based autosegmentation model for clinical target volumes in cervical cancer radiotherapy	Image segmentation
[507]	DL	2021	Automated approach for segmenting gross tumor volumes for lung cancer stereotactic body radiation therapy using CT-based dense V-networks	Image segmentation
[508]	DL	2021	Male pelvic CT multi-organ segmentation using synthetic MRI-aided dual pyramid networks	Image segmentation
[509]	DL	2021	A blind randomized validated convolutional neural network for auto-segmentation of clinical target volume in rectal cancer patients receiving neoadjuvant radiotherapy	Image segmentation
[510]	DL	2021	A hybrid approach based on deep learning and level set formulation for liver segmentation in CT images	Image segmentation
[511]	DL	2021	An Adversarial Deep-Learning-Based Model for Cervical Cancer CTV Segmentation With Multicenter Blinded Randomized Controlled Validation	Image segmentation
[512]	DL	2021	Clinical Evaluation of Deep Learning and Atlas-Based Auto-Contouring of Bladder and Rectum for Prostate Radiation Therapy	Image segmentation
[513]	DL	2021	Deep-learning system to improve the quality and efficiency of volumetric heart segmentation for breast cancer	Image segmentation
[514]	DL	2021	Automatic segmentation of organs at risk and tumors in CT images of lung cancer from partially labelled datasets with a semi-supervised conditional nnU-Net	Image segmentation
[515]	DL	2021	Weaving attention U-net: A novel hybrid CNN and attention-based method for organs-at-risk segmentation in head and neck CT images	Image segmentation
[516]	DL	2021	Semi-supervised semantic segmentation of prostate and organs-at-risk on 3D pelvic CT images	Image segmentation

[517]	DL	2021	ARPM-net: A novel CNN-based adversarial method with Markov random field enhancement for prostate and organs at risk segmentation in pelvic CT images	Image segmentation
[518]	DL	2021	A deep learning based automatic segmentation approach for anatomical structures in intensity modulation radiotherapy	Image segmentation
[519]	ML	2021	A multiparametric mri-based radiomics analysis to efficiently classify tumor subregions of glioblastoma: A pilot study in machine learning	Detection and classification
[520]	DL	2018	Accurate real time localization tracking in a clinical environment using Bluetooth Low Energy and deep learning	Motion
[521]	ML	2018	A machine learning approach for biomechanics-based tracking of lung tumor during external beam radiation therapy	Motion
[522]	ML	2018	Markerless tumor gating and tracking for lung cancer radiotherapy based on machine learning techniques	Motion
[523]	DL	2019	Attention-aware fully convolutional neural network with convolutional long short-term memory network for ultrasound-based motion tracking	Motion
[524]	DL	2019	Technical Note: Real-time 3D MRI in the presence of motion for MRI-guided radiotherapy: 3D Dynamic keyhole imaging with super-resolution	Motion
[525]	DL	2019	Advanced 4-dimensional cone-beam computed tomography reconstruction by combining motion estimation, motion-compensated reconstruction, biomechanical modeling and deep learning	Motion
[526]	DL	2019	Incorporating imaging information from deep neural network layers into image guided radiation therapy (IGRT)	Motion
[527]	DL	2019	Toward markerless image-guided radiotherapy using deep learning for prostate cancer	Motion
[528]	DL	2019	Automatic marker-free target positioning and tracking for image-guided radiotherapy and interventions	Motion
[529]	ML	2019	Bayesian model-based liver respiration motion prediction and evaluation using single-cycle and double-cycle 4D CT images	Motion
[530]	ML	2019	2D ultrasound imaging based intra-fraction respiratory motion tracking for abdominal radiation therapy using machine learning	Motion
[531]	ML	2019	A Super-Learner Model for Tumor Motion Prediction and Management in Radiation Therapy: Development and Feasibility Evaluation	Motion
[532]	ML	2019	Commissioning of a fluoroscopic-based real-time markerless tumor tracking system in a superconducting rotating gantry for carbon-ion pencil beam scanning treatment	Motion
[533]	DL	2020	Prediction of in-plane organ deformation during free-breathing radiotherapy via discriminative spatial transformer networks	Motion
[534]	DL	2020	Deep learning-based real-time volumetric imaging for lung stereotactic body radiation therapy: A proof of concept study	Motion
[535]	DL	2020	Artificial intelligence-based framework in evaluating intrafraction motion for liver cancer robotic stereotactic body radiation therapy with fiducial tracking	Motion
[536]	DL	2020	Cascaded one-shot deformable convolutional neural networks: Developing a deep learning model for respiratory motion estimation in ultrasound sequences	Motion

[537]	DL	2020	Deep Learning model for markerless tracking in spinal SBRT	Motion
[538]	DL	2020	Deep learning-based image reconstruction and motion estimation from undersampled radial k-space for real-time MRI-guided radiotherapy	Motion
[539]	DL	2020	DeepOrganNet: On-the-Fly Reconstruction and Visualization of 3D / 4D Lung Models from Single-View Projections by Deep Deformation Network	Motion
[540]	DL	2020	A Windows GUI application for real-time image guidance during motion-managed proton beam therapy	Motion
[541]	ML	2020	Semi-automated prediction approach of target shifts using machine learning with anatomical features between planning and pretreatment CT images in prostate radiotherapy	Motion
[542]	ML	2020	Morphological autoencoders for apnea detection in respiratory gating radiotherapy	Motion
[543]	ML	2020	A machine learning-based real-time tumor tracking system for fluoroscopic gating of lung radiotherapy	Motion
[544]	DL	2021	An Upgraded Siamese Neural Network for Motion Tracking in Ultrasound Image Sequences	Motion
[545]	DL	2021	Real-time respiratory tumor motion prediction based on a temporal convolutional neural network: Prediction model development study	Motion
[546]	DL	2021	Deep learning-based motion tracking using ultrasound images	Motion
[547]	DL	2021	Automatic Detection and Tracking of Marker Seeds Implanted in Prostate Cancer Patients using a Deep Learning Algorithm	Motion
[548]	DL	2021	Improving motion-mask segmentation in thoracic CT with multiplanar U-nets	Motion
[549]	DL	2021	Motion tracking in 3D ultrasound imaging based on markov-like deep-learning-based deformable registration	Motion
[550]	DL	2021	A semi-supervised autoencoder framework for joint generation and classification of breathing	Motion
[551]	DL	2021	A feasibility study on the development and use of a deep learning model to automate real-time monitoring of tumor position and assessment of interfraction fiducial marker migration in prostate radiotherapy patients	Motion
[552]	DL	2021	Population-based 3D respiratory motion modelling from convolutional autoencoders for 2D ultrasound-guided radiotherapy	Motion
[553]	DL	2021	Decompose kV projection using neural network for improved motion tracking in paraspinal SBRT,	Motion
[554]	ML	2021	Evaluation of super-resolution on 50 pancreatic cancer patients with real-time cine MRI from 0.35T MRgRT	Motion
[555]	ML	2021	Stability of conventional and machine learning-based tumor auto-segmentation techniques using undersampled dynamic radial bSSFP acquisitions on a 0.35 T hybrid MR-linac system	Motion
[556]	ML	2021	Real-time liver tracking algorithm based on LSTM and SVR networks for use in surface-guided radiation therapy	Motion
[557]	DL	2018	Deep learning for lung cancer prognostication: A retrospective multi-cohort radiomics study	Outcome prediction
[558]	DL	2018	Development of deep neural network for individualized hepatobiliary toxicity prediction after liver SBRT	Outcome prediction
[559]	DL	2018	Deep learning-based survival analysis identified associations between molecular subtype and optimal adjuvant treatment of patients with Gastric cancer	Outcome prediction
[560]	DL	2018	Prediction of Response to Stereotactic Radiosurgery for Brain Metastases Using Convolutional Neural Networks	Outcome prediction

[561]	ML	2018	Rectal wall MRI radiomics in prostate cancer patients: prediction of and correlation with early rectal toxicity	Outcome prediction
[562]	ML	2018	Cochlea CT radiomics predicts chemoradiotherapy induced sensorineural hearing loss in head and neck cancer patients: A machine learning and multi-variable modelling study	Outcome prediction
[563]	ML	2018	Exploratory analysis using machine learning to predict for chest wall pain in patients with stage I non-small-cell lung cancer treated with stereotactic body radiation therapy	Outcome prediction
[564]	ML	2018	Incorporating spatial dose metrics in machine learning-based normal tissue complication probability (NTCP) models of severe acute dysphagia resulting from head and neck radiotherapy	Outcome prediction
[565]	ML	2018	Machine learning algorithms for outcome prediction in (chemo)radiotherapy: An empirical comparison of classifiers	Outcome prediction
[566]	ML	2018	Identifying Genes to Predict Cancer Radiotherapy-Related Fatigue with Machine-Learning Methods	Outcome prediction
[567]	ML	2018	Investigation of radiomic signatures for local recurrence using primary tumor texture analysis in oropharyngeal head and neck cancer patients	Outcome prediction
[568]	ML	2018	Machine learning applications in head and neck radiation oncology: Lessons from open-source radiomics challenges	Outcome prediction
[569]	ML	2018	Design and selection of machine learning methods using radiomics and dosiomics for normal tissue complication probability modeling of xerostomia	Outcome prediction
[570]	ML	2018	Predicting pathological response to neoadjuvant chemotherapy in breast cancer patients based on imbalanced clinical data	Outcome prediction
[571]	ML	2018	Feasibility study of individualized optimal positioning selection for left-sided whole breast radiotherapy: DIBH or prone	Patient positioning
[572]	ML	2019	Investigating rectal toxicity associated dosimetric features with deformable accumulated rectal surface dose maps for cervical cancer radiotherapy	Outcome prediction
[573]	ML	2018	Machine Learning on a Genome-wide Association Study to Predict Late Genitourinary Toxicity After Prostate Radiation Therapy	Outcome prediction
[574]	ML	2018	Fifteen-gene expression based model predicts the survival of clear cell renal cell carcinoma	Outcome prediction
[575]	ML	2018	Use of radiomics combined with machine learning method in the recurrence patterns after intensity-modulated radiotherapy for nasopharyngeal carcinoma: A preliminary study	Outcome prediction
[576]	ML	2018	A pilot study using kernelled support tensor machine for distant failure prediction in lung SBRT	Outcome prediction
[577]	ML	2018	A gene expression signature predicts recurrence-free survival in meningioma	Outcome prediction
[578]	ML	2018	Predicting acute odynophagia during lung cancer radiotherapy using observations derived from patient-centred nursing care	Outcome prediction
[579]	ML	2018	Treatment-related features improve machine learning prediction of prognosis in soft tissue sarcoma patients [Therapieinformationen verbessern auf maschinellem Lernen basierende prognostische Einschätzungen für Patienten mit Weichteilsarkomen]	Outcome prediction
[580]	ML	2018	Radiomic signature of infiltration in peritumoral edema predicts subsequent recurrence in glioblastoma: Implications for personalized radiotherapy planning	Outcome prediction

[581]	ML	2018	Technical note: A radiomic signature of infiltration in peritumoral edema predicts subsequent recurrence in glioblastoma	Outcome prediction
[582]	ML	2018	Predicting ionizing radiation exposure using biochemically-inspired genomic machine learning [version 1 referees: 3 approved]	Outcome prediction
[583]	ML	2018	Using data mining for survival prediction in patients with colon cancer	Outcome prediction
[584]	ML	2018	Predicting Radiotherapy Response in Head and Neck Patients Using Quantitative Ultrasound	Outcome prediction
[585]	ML	2018	A radiomics approach to assess tumour-infiltrating CD8 cells and response to anti-PD-1 or anti-PD-L1 immunotherapy: an imaging biomarker, retrospective multicohort study	Outcome prediction
[586]	ML	2018	Voxel-wise prostate cell density prediction using multiparametric magnetic resonance imaging and machine learning	Outcome prediction
[587]	ML	2018	A Novel Approach for Identifying Relevant Genes for Breast Cancer Survivability on Specific Therapies	Outcome prediction
[588]	ML	2018	Strategies for prediction and mitigation of radiation-induced liver toxicity	Outcome prediction
[589]	ML	2018	Salvage HDR Brachytherapy: Multiple Hypothesis Testing Versus Machine Learning Analysis	Outcome prediction
[590]	ML	2018	A comparative study of machine learning techniques for the improved prediction of NSCLC survival analysis	Outcome prediction
[591]	DL	2019	Bragatston study protocol: A multicentre cohort study on automated quantification of cardiovascular calcifications on radiotherapy planning CT scans for cardiovascular risk prediction in patients with breast cancer	Outcome prediction
[592]	DL	2019	Treatment response prediction of hepatocellular carcinoma patients from abdominal ct images with deep convolutional neural networks	Outcome prediction
[593]	DL	2019	An image-based deep learning framework for individualising radiotherapy dose: a retrospective analysis of outcome prediction	Outcome prediction
[594]	DL	2019	A Deep Learning Model for Predicting Xerostomia Due to Radiation Therapy for Head and Neck Squamous Cell Carcinoma in the RTOG 0522 Clinical Trial	Outcome prediction
[595]	DL	2019	Artificial Neural Network with Composite Architectures for Prediction of Local Control in Radiotherapy	Outcome prediction
[596]	DL	2019	Multi-objective ensemble deep learning using electronic health records to predict outcomes after lung cancer radiotherapy	Outcome prediction
[597]	ML	2019	Machine learning-based radiomic models to predict intensity-modulated radiation therapy response, Gleason score and stage in prostate cancer	Outcome prediction
[598]	ML	2019	Radiomic Machine Learning and Texture Analysis - New Horizons for Head and Neck Oncology	Outcome prediction
[599]	ML	2019	Using a neural network to predict deviations in mean heart dose during the treatment of left-sided deep inspiration breath hold patients	Motion
[600]	ML	2019	Developing infrared spectroscopic detection for stratifying brain tumour patients: Glioblastoma multiforme: Vs. lymphoma	Outcome prediction
[601]	ML	2019	Developing a Novel Machine Learning-Based Classification Scheme for Predicting SPCs in Breast Cancer Survivors	Outcome prediction

[602]	ML	2019	Combining handcrafted features with latent variables in machine learning for prediction of radiation-induced lung damage	Outcome prediction
[603]	ML	2019	Machine Learning-Based Radiomics Predicts Radiotherapeutic Response in Patients With Acromegaly	Outcome prediction
[604]	ML	2019	Radiomics and Dosiomics for Predicting Local Control after Carbon-Ion Radiotherapy in Skull-Base Chordoma	Outcome prediction
[605]	ML	2019	Radiomics features measured with multiparametric magnetic resonance imaging predict prostate cancer aggressiveness	Outcome prediction
[606]	ML	2019	Machine Learning Methods Uncover Radiomorphologic Dose Patterns in Salivary Glands that Predict Xerostomia in Patients with Head and Neck Cancer	Outcome prediction
[607]	ML	2019	Radiomic analysis of planning computed tomograms for predicting radiation-induced lung injury and outcome in lung cancer patients treated with robotic stereotactic body radiation therapy	Outcome prediction
[608]	ML	2019	Predicting acute radiation induced xerostomia in head and neck Cancer using MR and CT Radiomics of parotid and submandibular glands	Outcome prediction
[609]	ML	2019	Quantitative MRI Biomarkers of Stereotactic Radiotherapy Outcome in Brain Metastasis	Outcome prediction
[610]	ML	2019	Radio-morphology: Parametric shape-based features in radiotherapy	Outcome prediction
[611]	ML	2019	Prediction of recurrence-associated death from localized prostate cancer with a charlson comorbidity index-reinforced machine learning model	Outcome prediction
[612]	ML	2019	Personalized Radiotherapy Design for Glioblastoma: Integrating Mathematical Tumor Models, Multimodal Scans, and Bayesian Inference	Treatment planning
[613]	ML	2019	Predicting radiation pneumonitis in locally advanced stage II–III non-small cell lung cancer using machine learning	Outcome prediction
[614]	ML	2019	The Potential Role of Radiomics and Radiogenomics in Patient Stratification by Tumor Hypoxia Status	Outcome prediction
[615]	ML	2019	Optimization of treatment strategy by using a machine learning model to predict survival time of patients with malignant glioma after radiotherapy	Outcome prediction
[616]	ML	2019	Regression Models and Ranking Method for p53 Inhibitor Candidates Using Machine Learning	Outcome prediction
[617]	ML	2019	Comparison of machine learning algorithms and oversampling techniques for urinary toxicity prediction after prostate cancer radiotherapy	Outcome prediction
[618]	ML	2019	The Needs and Benefits of Continuous Model Updates on the Accuracy of RT-Induced Toxicity Prediction Models Within a Learning Health System	Outcome prediction
[619]	ML	2019	Machine learning techniques combined with dose profiles indicate radiation response biomarkers	Outcome prediction
[620]	ML	2019	CT-based radiomic features predict tumor grading and have prognostic value in patients with soft tissue sarcomas treated with neoadjuvant radiation therapy	Outcome prediction
[621]	ML	2019	Predicting Survival of Patients with Spinal Ependymoma Using Machine Learning Algorithms with the SEER Database	Outcome prediction
[622]	ML	2019	Machine learning for prediction of chemoradiation therapy response in rectal cancer using pre-treatment and mid-radiation multi-parametric MRI	Outcome prediction

[623]	ML	2019	Integration of Data Mining Classification Techniques and Ensemble Learning for Predicting the Type of Breast Cancer Recurrence	Outcome prediction
[624]	ML	2019	A machine-learning–based prediction model of fistula formation after interstitial brachytherapy for locally advanced gynecological malignancies	Outcome prediction
[625]	ML	2019	Predictive quantitative ultrasound radiomic markers associated with treatment response in head and neck cancer	Outcome prediction
[626]	ML	2020	Automated data extraction and ensemble methods for predictive modeling of breast cancer outcomes after radiation therapy	Outcome prediction
[627]	ML	2019	Prognostic nomogram for bladder cancer with brain metastases: A National Cancer Database analysis	Outcome prediction
[628]	ML	2019	Machine learning to build and validate a model for radiation pneumonitis prediction in patients with non–small cell lung cancer	Outcome prediction
[629]	ML	2019	The tumor infiltrating leukocyte cell composition are significant markers for prognostics of radiotherapy of rectal cancer as revealed by cell type deconvolution	Outcome prediction
[630]	DL	2020	MDR-SURV: A Multi-Scale Deep Learning-Based Radiomics for Survival Prediction in Pulmonary Malignancies	Outcome prediction
[631]	DL	2020	Prognostic value of anthropometric measures extracted from whole-body CT using deep learning in patients with non-small-cell lung cancer	Outcome prediction
[632]	DL	2020	Development and Validation of a Deep Learning Radiomics Model Predicting Lymph Node Status in Operable Cervical Cancer	Outcome prediction
[633]	DL	2020	Deep learning methodology for differentiating glioma recurrence from radiation necrosis using multimodal magnetic resonance imaging: Algorithm development and validation	Outcome prediction
[634]	DL	2020	Deep Learning Strategies for Survival Prediction in Prophylactic Resection Patients	Outcome prediction
[635]	DL	2020	Deep learning for identification of critical regions associated with toxicities after liver stereotactic body radiation therapy	Outcome prediction
[636]	DL	2020	Survival prediction of liver cancer patients from CT images using deep learning and radiomic feature-based regression	Outcome prediction
[637]	DL	2020	A Deep Learning Approach Validates Genetic Risk Factors for Late Toxicity After Prostate Cancer Radiotherapy in a REQUITE Multi-National Cohort	Outcome prediction
[638]	DL	2020	Effect of Radiation Doses to the Heart on Survival for Stereotactic Ablative Radiotherapy for Early-stage Non-Small-cell Lung Cancer: An Artificial Neural Network Approach	Outcome prediction
[639]	DL	2020	Dose-Distribution-Driven PET Image-Based Outcome Prediction (DDD-PIOP): A Deep Learning Study for Oropharyngeal Cancer IMRT Application	Outcome prediction
[640]	DL	2020	User-controlled pipelines for feature integration and head and neck radiation therapy outcome predictions	Outcome prediction
[641]	DL	2020	A novel deep learning model using dosimetric and clinical information for grade 4 radiotherapy-induced lymphopenia prediction	Outcome prediction
[642]	ML	2020	Prediction of Survival and Recurrence Patterns by Machine Learning in Gastric Cancer Cases Undergoing Radiation Therapy and Chemotherapy	Outcome prediction

[643]	ML	2020	Evaluation of Prognosis in Nasopharyngeal Cancer Using Machine Learning	Outcome prediction
[644]	ML	2020	Developing an Improved Statistical Approach for Survival Estimation in Bone Metastases Management: The Bone Metastases Ensemble Trees for Survival (BMETS) Model	Outcome prediction
[645]	ML	2020	Comparative Effectiveness of Proton vs Photon Therapy as Part of Concurrent Chemoradiotherapy for Locally Advanced Cancer	Outcome prediction
[646]	ML	2020	Overlooked pitfalls in multi-class machine learning classification in radiation oncology and how to avoid them	Outcome prediction
[647]	ML	2020	Artificial neural networks allow response prediction in squamous cell carcinoma of the scalp treated with radiotherapy	Outcome prediction
[648]	ML	2020	Multi-Habitat Based Radiomics for the Prediction of Treatment Response to Concurrent Chemotherapy and Radiation Therapy in Locally Advanced Cervical Cancer	Outcome prediction
[649]	ML	2020	Prediction of Radiation-Related Dental Caries Through PyRadiomics Features and Artificial Neural Network on Panoramic Radiography	Outcome prediction
[650]	ML	2020	Ensemble Learning for Prediction of Toxicity in Prostate Cancer Radiotherapy: Comparison between Stacking and Genetic Algorithm Weighted Voting	Outcome prediction
[651]	ML	2020	Comparison of feature selection in radiomics for the prediction of overall survival after radiotherapy for hepatocellular carcinoma	Outcome prediction
[652]	ML	2020	Differentiation of treatment-related effects from glioma recurrence using machine learning classifiers based upon pre-and post-contrast T1WI and T2 FLAIR subtraction features: A two-center study	Outcome prediction
[653]	ML	2020	Spatial Radiation Dose Influence on Xerostomia Recovery and Its Comparison to Acute Incidence in Patients With Head and Neck Cancer	Outcome prediction
[654]	ML	2020	Gene signature based on B cell predicts clinical outcome of radiotherapy and immunotherapy for patients with lung adenocarcinoma	Outcome prediction
[655]	ML	2020	Radiomics Method for the Differential Diagnosis of Radionecrosis Versus Progression after Fractionated Stereotactic Body Radiotherapy for Brain Oligometastasis	Outcome prediction
[656]	ML	2020	Machine Learning-Guided Adjuvant Treatment of Head and Neck Cancer	Outcome prediction
[657]	ML	2020	Predicting Local Failure after Stereotactic Radiation Therapy in Brain Metastasis using Quantitative CT and Machine Learning	Outcome prediction
[658]	ML	2020	Machine learning model to predict pseudoprogression versus progression in glioblastoma using mri: A multi-institutional study (krog 18-07)	Outcome prediction
[659]	ML	2020	Comparison of statistical machine learning models for rectal protocol compliance in prostate external beam radiation therapy	Outcome prediction
[660]	ML	2020	Prediction of Cranial Radiotherapy Treatment in Pediatric Acute Lymphoblastic Leukemia Patients Using Machine Learning: A Case Study at MAHAK Hospital	Outcome prediction
[661]	ML	2020	Computed tomography-derived radiomic signature of head and neck squamous cell carcinoma (peri)tumoral tissue for the prediction of locoregional recurrence and distant metastasis after concurrent chemoradiotherapy	Outcome prediction

[662]	ML	2020	A single-institutional experience with low dose stereotactic body radiation therapy for liver metastases	Outcome prediction
[663]	ML	2020	Multi-view radiomics and dosiomics analysis with machine learning for predicting acute-phase weight loss in lung cancer patients treated with radiotherapy	Outcome prediction
[664]	ML	2020	Machine learning highlights the deficiency of conventional dosimetric constraints for prevention of high-grade radiation esophagitis in non-small cell lung cancer treated with chemoradiation	Outcome prediction
[665]	ML	2020	Electron Density and Biologically Effective Dose (BED) Radiomics-Based Machine Learning Models to Predict Late Radiation-Induced Subcutaneous Fibrosis	Outcome prediction
[666]	ML	2020	Development and application of an elastic net logistic regression model to investigate the impact of cardiac substructure dose on radiation-induced pericardial effusion in patients with NSCLC	Outcome prediction
[667]	ML	2020	Dosimetric predictors of patient-reported toxicity after prostate stereotactic body radiotherapy: Analysis of full range of the dose-volume histogram using ensemble machine learning	Outcome prediction
[668]	ML	2020	Survival prediction for oral tongue cancer patients via probabilistic genetic algorithm optimized neural network models	Outcome prediction
[669]	ML	2020	Machine learning based on a multiparametric and multiregional radiomics signature predicts radiotherapeutic response in patients with glioblastoma	Outcome prediction
[670]	ML	2020	A Comparison Study of Machine Learning (Random Survival Forest) and Classic Statistic (Cox Proportional Hazards) for Predicting Progression in High-Grade Glioma after Proton and Carbon Ion Radiotherapy	Outcome prediction
[671]	ML	2020	Prediction of KRAS, NRAS and BRAF status in colorectal cancer patients with liver metastasis using a deep artificial neural network based on radiomics and semantic features	Outcome prediction
[672]	ML	2020	External Validation of a Predictive Model for Acute Skin Radiation Toxicity in the REQUITE Breast Cohort	Outcome prediction
[673]	ML	2020	Novel prognostication of patients with spinal and pelvic chondrosarcoma using deep survival neural networks	Outcome prediction
[674]	ML	2020	Comprehensive Analysis of Tumour Sub-Volumes for Radiomic Risk Modelling in Locally Advanced HNSCC	Outcome prediction
[675]	ML	2020	Senescence-Associated Secretory Phenotype Determines Survival and Therapeutic Response in Cervical Cancer	Outcome prediction
[676]	ML	2020	Quantitative Thermal Imaging Biomarkers to Detect Acute Skin Toxicity From Breast Radiation Therapy Using Supervised Machine Learning	Outcome prediction
[677]	ML	2020	Risk stratification of locally advanced non-small cell lung cancer (Nsclc) patients treated with chemo-radiotherapy: An institutional analysis	Outcome prediction
[678]	ML	2020	Predicting salvage laryngectomy in patients treated with primary nonsurgical therapy for laryngeal squamous cell carcinoma using machine learning	Outcome prediction
[679]	ML	2020	Comparison of patient stratification by computed tomography radiomics and hypoxia positron emission tomography in head-and-neck cancer radiotherapy	Outcome prediction
[680]	ML	2020	A multi-scanner study of MRI radiomics in uterine cervical cancer: prediction of in-field tumor control after definitive radiotherapy based on a machine learning method including peritumoral regions	Outcome prediction
[681]	ML	2020	Development and Validation of a Comprehensive Multivariate Dosimetric Model for Predicting Late Genitourinary Toxicity Following Prostate Cancer Stereotactic Body Radiotherapy	Outcome prediction

[682]	ML	2020	Quantitative ultrasound delta-radiomics during radiotherapy for monitoring treatment responses in head and neck malignancies	Outcome prediction
[683]	ML	2020	A predictive model of radiation-related fibrosis based on the radiomic features of magnetic resonance imaging and computed tomography	Outcome prediction
[684]	ML	2020	Radiomic Analysis of CT Predicts Tumor Response in Human Lung Cancer with Radiotherapy	Outcome prediction
[685]	DL	2021	Combining computed tomography and biologically effective dose in radiomics and deep learning improves prediction of tumor response to robotic lung stereotactic body radiation therapy	Outcome prediction
[686]	DL	2021	A deep learning-based dual-omics prediction model for radiation pneumonitis	Outcome prediction
[687]	DL	2021	Attention Guided Lymph Node Malignancy Prediction in Head and Neck Cancer	Outcome prediction
[688]	DL	2021	Integrating Multiomics Information in Deep Learning Architectures for Joint Actuarial Outcome Prediction in Non-Small Cell Lung Cancer Patients After Radiation Therapy	Outcome prediction
[689]	DL	2021	Fully Automatic Head and Neck Cancer Prognosis Prediction in PET/CT	Outcome prediction
[690]	DL	2021	Identification of Risk of Cardiovascular Disease by Automatic Quantification of Coronary Artery Calcifications on Radiotherapy Planning CT Scans in Patients with Breast Cancer	Outcome prediction
[691]	DL	2021	Prediction of soft tissue sarcoma response to radiotherapy using longitudinal diffusion MRI and a deep neural network with generative adversarial network-based data augmentation	Outcome prediction
[692]	DL	2021	Radiogenomic and deep learning network approaches to predict kras mutation from radiotherapy plan ct	Outcome prediction
[693]	DL	2021	Novel methodology to assess the effect of contouring variation on treatment outcome	Outcome prediction
[694]	DL	2021	Extended application of a CT-based artificial intelligence prognostication model in patients with primary lung cancer undergoing stereotactic ablative radiotherapy	Outcome prediction
[695]	DL	2021	3D Deep Learning Model for the Pretreatment Evaluation of Treatment Response in Esophageal Carcinoma: A Prospective Study (ChiCTR2000039279)	Outcome prediction
[696]	DL	2021	The role of deep learning-based survival model in improving survival prediction of patients with glioblastoma	Outcome prediction
[697]	DL	2021	Radiomics AI prediction for head and neck squamous cell carcinoma (HNSCC) prognosis and recurrence with target volume approach	Outcome prediction
[698]	DL	2021	A deep survival interpretable radiomics model of hepatocellular carcinoma patients	Outcome prediction
[699]	DL	2021	Integration of Deep Learning Radiomics and Counts of Circulating Tumor Cells Improves Prediction of Outcomes of Early Stage NSCLC Patients Treated With Stereotactic Body Radiation Therapy	Outcome prediction
[700]	DL	2021	Analysis of Curative Effect and Prognostic Factors of Radiotherapy for Esophageal Cancer Based on the CNN	Outcome prediction
[701]	ML	2021	Classification of early stage non-small cell lung cancers on computed tomographic images into histological types using radiomic features: interobserver delineation variability analysis	Outcome prediction
[702]	ML	2021	Comparison of nomogram with machine learning techniques for prediction of overall survival in patients with tongue cancer	Outcome prediction

[703]	ML	2021	A data science approach for early-stage prediction of Patient's susceptibility to acute side effects of advanced radiotherapy	Outcome prediction
[704]	ML	2021	Radiomics analysis on CT images for prediction of radiation-induced kidney damage by machine learning models	Outcome prediction
[705]	ML	2021	Radiomic modeling to predict risk of vertebral compression fracture after stereotactic body radiation therapy for spinal metastases	Outcome prediction
[706]	ML	2021	Biological dosiomic features for the prediction of radiation pneumonitis in esophageal cancer patients	Outcome prediction
[707]	ML	2021	Statistical Modeling of Longitudinal Data with Non-Ignorable Non-Monotone Missingness with Semiparametric Bayesian and Machine Learning Components	Outcome prediction
[708]	ML	2021	An artificial immune system with bootstrap sampling for the diagnosis of recurrent endometrial cancers	Outcome prediction
[709]	ML	2021	Using computed tomography-based radiomics to predict outcomes for hepatocellular carcinoma patients receiving stereotactic body radiotherapy	Outcome prediction
[710]	ML	2021	A machine learning-based survival prediction model of high grade glioma by integration of clinical and dose-volume histogram parameters	Outcome prediction
[711]	ML	2021	Radiation Versus Immune Checkpoint Inhibitor Associated Pneumonitis: Distinct Radiologic Morphologies	Outcome prediction
[712]	ML	2021	Computed tomography-based radiomic model predicts radiological response following stereotactic body radiation therapy in early-stage non-small-cell lung cancer and pulmonary oligo-metastases	Outcome prediction
[713]	ML	2021	Predicting outcomes in anal cancer patients using multi-centre data and distributed learning – A proof-of-concept study	Outcome prediction
[714]	ML	2021	Performance stability evaluation of atlas-based machine learning radiation therapy treatment planning in prostate cancer	Dose prediction
[715]	ML	2021	Dosimetric Planning Tradeoffs to Reduce Heart Dose Using Machine Learning-Guided Decision Support Software in Patients with Lung Cancer	Outcome prediction
[716]	ML	2021	Quantitative ultrasound radiomics in predicting recurrence for patients with node-positive head-neck squamous cell carcinoma treated with radical radiotherapy	Outcome prediction
[717]	ML	2021	Prediction of recurrence by machine learning in salivary gland cancer patients after adjuvant (chemo) radiotherapy	Outcome prediction
[718]	ML	2021	Kurtosis is An MRI Radiomics Feature Predictor of Poor Prognosis in Patients with GBM	Outcome prediction
[719]	ML	2021	MRI-based clinical-radiomics model predicts tumor response before treatment in locally advanced rectal cancer	Outcome prediction
[720]	ML	2021	Predict multicategory causes of death in lung cancer patients using clinicopathologic factors	Outcome prediction
[721]	ML	2021	Framework for machine learning of ct and pet radiomics to predict local failure after radiotherapy in locally advanced head and neck cancers	Outcome prediction
[722]	ML	2021	Immune landscape and subtypes in primary resectable oral squamous cell carcinoma: Prognostic significance and predictive of therapeutic response	Outcome prediction

[723]	ML	2021	External Validation of the Bone Metastases Ensemble Trees for Survival (BMETS) Machine Learning Model to Predict Survival in Patients With Symptomatic Bone Metastases	Outcome prediction
[724]	ML	2021	Developing and validating ultrasound-based radiomics models for predicting high-risk endometrial cancer	Outcome prediction
[725]	ML	2021	Ultrasound delta-radiomics during radiotherapy to predict recurrence in patients with head and neck squamous cell carcinoma	Outcome prediction
[726]	ML	2021	Automated model versus treating physician for predicting survival time of patients with metastatic cancer	Outcome prediction
[727]	ML	2021	Interpretable machine learning model for locoregional relapse prediction in oropharyngeal cancers	Outcome prediction
[728]	ML	2021	Radiomics outperforms semantic features for prediction of response to stereotactic radiosurgery in brain metastases	Outcome prediction
[729]	ML	2021	Novel Immune-Related Gene-Based Signature Characterizing an Inflamed Microenvironment Predicts Prognosis and Radiotherapy Efficacy in Glioblastoma	Outcome prediction
[730]	ML	2021	Genetic Variations in the Transforming Growth Factor-β1 Pathway May Improve Predictive Power for Overall Survival in Non-small Cell Lung Cancer	Outcome prediction
[731]	ML	2021	Prediction of post-radiotherapy locoregional progression in HPV-associated oropharyngeal squamous cell carcinoma using machine-learning analysis of baseline PET/CT radiomics	Outcome prediction
[732]	ML	2021	Improving Early Identification of Significant Weight Loss Using Clinical Decision Support System in Lung Cancer Radiation Therapy	Outcome prediction
[733]	ML	2021	Estimating heterogeneous survival treatment effect in observational data using machine learning	Outcome prediction
[734]	ML	2021	Comparison of machine learning methods for prediction of osteoradionecrosis incidence in patients with head and neck cancer	Outcome prediction
[735]	ML	2021	MRI-based delta-radiomics predicts pathologic complete response in high-grade soft-tissue sarcoma patients treated with neoadjuvant therapy	Outcome prediction
[736]	ML	2021	A priori prediction of local failure in brain metastasis after hypo-fractionated stereotactic radiotherapy using quantitative MRI and machine learning	Outcome prediction
[737]	ML	2021	Stromal composition predicts recurrence of early rectal cancer after local excision	Outcome prediction
[738]	ML	2021	Intrinsic radiomic expression patterns after 20 Gy demonstrate early metabolic response of oropharyngeal cancers	Outcome prediction
[739]	ML	2021	Machine-Learning Models for Multicenter Prostate Cancer Treatment Plans	Outcome prediction
[740]	ML	2021	Functional Connectivity Density for Radiation Encephalopathy Prediction in Nasopharyngeal Carcinoma	Outcome prediction
[741]	ML	2021	A Novel Machine Learning Algorithm Combined With Multivariate Analysis for the Prognosis of Renal Collecting Duct Carcinoma	Outcome prediction
[742]	ML	2021	Photographic image processing to predict radiation dermatitis in breast cancer patients using machine learning algorithms	Outcome prediction
[743]	ML	2021	Telomere length dynamics and chromosomal instability for predicting individual radiosensitivity and risk via machine learning	Outcome prediction

[744]	ML	2021	Evaluation of acute hematological toxicity by machine learning in gynecologic cancers using postoperative radiotherapy	Outcome prediction
[745]	ML	2021	Development and validation of genomic predictors of radiation sensitivity using preclinical data	Outcome prediction
[746]	ML	2021	Machine learning and feature selection methods for egfr mutation status prediction in lung cancer	Outcome prediction
[747]	ML	2021	Exploratory ensemble interpretable model for predicting local failure in head and neck cancer: The additive benefit of CT and intra-treatment cone-beam computed tomography features	Outcome prediction
[748]	ML	2021	MRI-Based Radiomics Input for Prediction of 2-Year Disease Recurrence in Anal Squamous Cell Carcinoma	Outcome prediction
[749]	ML	2021	Independent validation of a comprehensive machine learning approach predicting survival after radiotherapy for bone metastases	Outcome prediction
[750]	ML	2021	Progression-free survival prediction in patients with nasopharyngeal carcinoma after intensity-modulated radiotherapy: Machine learning vs. traditional statistics	Outcome prediction
[751]	ML	2021	Assessment of clinical radiosensitivity in patients with head-neck squamous cell carcinoma from pre-treatment quantitative ultrasound radiomics	Outcome prediction
[752]	ML	2021	Classification of tolerable/intolerable mucosal toxicity of head-and-neck radiotherapy schedules with a biomathematical model of cell dynamics	Outcome prediction
[753]	ML	2021	Dosiomics-based prediction of radiation-induced hypothyroidism in nasopharyngeal carcinoma patients	Outcome prediction
[754]	ML	2021	Training radiomics-based CNNs for clinical outcome prediction: Challenges, strategies and findings	Outcome prediction
[755]	ML	2021	Tumor stemness and immune infiltration synergistically predict response of radiotherapy or immunotherapy and relapse in lung adenocarcinoma	Outcome prediction
[756]	ML	2021	Machine learning for dose-volume histogram based clinical decision-making support system in radiation therapy plans for brain tumors	Treatment planning
[757]	ML	2021	Low-grade chronic inflammation and immune alterations in childhood and adolescent cancer survivors: A contribution to accelerated aging?	Outcome prediction
[758]	ML	2021	Multi-institutional dose-segmented dosiomic analysis for predicting radiation pneumonitis after lung stereotactic body radiation therapy	Outcome prediction
[759]	ML	2021	Machine Learning Approaches for Prognostication of Newly Diagnosed Glioblastoma	Outcome prediction
[760]	ML	2021	Incorporating dose–volume histogram parameters of swallowing organs at risk in a videofluoroscopy-based predictive model of radiation-induced dysphagia after head and neck cancer intensity-modulated radiation therapy	Outcome prediction
[761]	ML	2021	Distinct lipid profiles of radiation-induced carotid plaques from atherosclerotic carotid plaques revealed by UPLC-QTOF-MS and DESI-MSI	Outcome prediction
[762]	ML	2021	Normal tissue complication probability (NTCP) models for predicting temporal lobe injury after intensity-modulated radiotherapy in nasopharyngeal carcinoma: A large registry-based retrospective study from China	Outcome prediction
[763]	ML	2021	Surface-Based Falff: A Potential Novel Biomarker for Prediction of Radiation Encephalopathy in Patients With Nasopharyngeal Carcinoma	Outcome prediction

[764]	ML	2021	Prediction of response to neoadjuvant chemoradiotherapy with machine learning in rectal cancer: A pilot study	Outcome prediction
[765]	ML	2021	Prediction of Radiation Pneumonitis With Machine Learning in Stage III Lung Cancer: A Pilot Study	Outcome prediction
[766]	ML	2021	Prediction of survival and progression-free survival using machine learning in stage iii lung cancer: A pilot study	Outcome prediction
[767]	ML	2021	Weighted-Support Vector Machine Learning Classifier of Circulating Cytokine Biomarkers to Predict Radiation-Induced Lung Fibrosis in Non-Small-Cell Lung Cancer Patients	Outcome prediction
[768]	ML	2021	Machine learning-based FDG PET-CT radiomics for outcome prediction in larynx and hypopharynx squamous cell carcinoma	Outcome prediction
[769]	ML	2021	A Clinical-Radiomics Nomogram Based on Computed Tomography for Predicting Risk of Local Recurrence After Radiotherapy in Nasopharyngeal Carcinoma	Outcome prediction
[770]	ML	2021	Identifying Individualized Risk Profiles for Radiotherapy-Induced Lymphopenia Among Patients With Esophageal Cancer Using Machine Learning	Outcome prediction
[771]	DL	2018	The Patient-Reported Information Multidimensional Exploration (PRIME) Framework for Investigating Emotions and Other Factors of Prostate Cancer Patients with Low Intermediate Risk Based on Online Cancer Support Group Discussions	Patient care and management
[772]	ML	2019	askMUSIC: Leveraging a Clinical Registry to Develop a New Machine Learning Model to Inform Patients of Prostate Cancer Treatments Chosen by Similar Men	Patient care and management
[773]	ML	2019	MRI-derived radiomics to guide post-operative management for high-risk prostate cancer	Patient care and management
[774]	ML	2019	Machine Learning to Predict Delays in Adjuvant Radiation following Surgery for Head and Neck Cancer	Patient care and management
[775]	DL	2020	Development of a real-time indoor location system using bluetooth low energy technology and deep learning to facilitate clinical applications	Patient care and management
[776]	DL	2020	MRI-based radiomics of sarcomas in the preclinical arm of a Co-clinical trial	Patient care and management
[777]	DL	2020	Facial expression monitoring system for predicting patient’s sudden movement during radiotherapy using deep learning	Patient care and management
[778]	ML	2020	Edge computing for having an edge on cancer treatment: A mobile app for breast image analysis	Patient care and management
[779]	ML	2020	System for High-Intensity Evaluation during Radiation Therapy (SHIELD-RT): A Prospective Randomized Study of Machine Learning–Directed Clinical Evaluations during Radiation and Chemoradiation	Patient care and management
[780]	ML	2020	Automatic incident triage in radiation oncology incident learning system	Patient care and management

[781]	ML	2020	A bibliometric analysis of 23,492 publications on rectal cancer by machine learning: basic medical research is needed	Patient care and management
[782]	DL	2021	Deep neural network models to automate incident triage in the radiation oncology incident learning system	Patient care and management
[783]	ML	2021	Investigating the role of transportation barriers in cancer patients' decision making regarding the treatment process	Patient care and management
[784]	DL	2019	A study of positioning orientation effect on segmentation accuracy using convolutional neural networks for rectal cancer	Patient positioning
[785]	DL	2019	A deep learning framework for automatic detection of arbitrarily shaped fiducial markers in intrafraction fluoroscopic images	Patient positioning
[786]	DL	2019	Markerless Pancreatic Tumor Target Localization Enabled By Deep Learning	Patient positioning
[787]	DL	2020	Breast cancer patient auto-setup using residual neural network for CT-guided therapy	Patient positioning
[788]	DL	2020	Technical Note: Deep Learning approach for automatic detection and identification of patient positioning devices for radiation therapy	Patient positioning
[789]	DL	2018	A deep learning-based prediction model for gamma evaluation in patient-specific quality assurance	Plan and machine QA
[790]	ML	2018	Guided undersampling classification for automated radiation therapy quality assurance of prostate cancer treatment	Plan and machine QA
[791]	DL	2019	Deep learning for patient-specific quality assurance: Identifying errors in radiotherapy delivery by radiomic analysis of gamma images with convolutional neural networks	Plan and machine QA
[792]	ML	2019	Machine learning for automated quality assurance in radiotherapy: A proof of principle using EPID data description	Plan and machine QA
[793]	ML	2019	Predicting gamma passing rates for portal dosimetry-based IMRT QA using machine learning	Plan and machine QA
[794]	DL	2020	Verification of the machine delivery parameters of a treatment plan via deep learning	Plan and machine QA
[795]	DL	2020	Error detection using a convolutional neural network with dose difference maps in patient-specific quality assurance for volumetric modulated arc therapy	Plan and machine QA
[796]	ML	2020	Error detection and classification in patient-specific IMRT QA with dual neural networks	Plan and machine QA
[797]	ML	2020	Application and comparison of machine learning models for predicting quality assurance outcomes in radiation therapy treatment planning	Plan and machine QA
[798]	ML	2020	Beam data modeling of linear accelerators (linacs) through machine learning and its potential applications in fast and robust linac commissioning and quality assurance	Plan and machine QA
[799]	DL	2021	Deep learning-augmented radioluminescence imaging for radiotherapy dose verification	Plan and machine QA
[800]	DL	2021	Error detection model developed using a multi-task convolutional neural network in patient-specific quality assurance for volumetric-modulated arc therapy	Plan and machine QA

[801]	DL	2021	Systematic method for a deep learning-based prediction model for gamma evaluation in patient-specific quality assurance of volumetric modulated arc therapy	Plan and machine QA
[802]	DL	2021	Virtual Patient-Specific Quality Assurance of IMRT Using UNet++: Classification, Gamma Passing Rates Prediction, and Dose Difference Prediction	Plan and machine QA
[803]	ML	2021	Improvement Using Planomics Features on Prediction and Classification of Patient-Specific Quality Assurance Using Head and Neck Volumetric Modulated Arc Therapy Plan,	Plan and machine QA
[804]	ML	2021	A tool for patient-specific prediction of delivery discrepancies in machine parameters using trajectory log files	Plan and machine QA
[805]	ML	2021	Visual light perceptions caused by medical linear accelerator: Findings of machinelearning algorithms in a prospective questionnaire-based case-control study	Plan and machine QA
[806]	ML	2021	The structural similarity index for IMRT quality assurance: radiomics-based error classification	Plan and machine QA
[807]	ML	2021	Quality assurance-based optimization (QAO): Towards improving patient-specific quality assurance in volumetric modulated arc therapy plans using machine learning	Plan and machine QA
[808]	ML	2021	Prospective study of artificial intelligence-based decision support to improve head and neck radiotherapy plan quality	Plan and machine QA
[809]	ML	2021	Deep Network Construction using Autoencoder for Abnormality Detection in Radiotherapy Service	Plan and machine QA
[810]	DL	2018	Comparison of synthetic CT generation algorithms for MRI-only radiation planning in the pelvic region	Synthetic image generation
[811]	DL	2018	Generating synthetic CTs from magnetic resonance images using generative adversarial networks	Synthetic image generation
[812]	DL	2018	Synthetic CT generation using MRI with deep learning: How does the selection of input images affect the resulting synthetic CT?	Synthetic image generation
[813]	DL	2018	Technical Note: U-net-generated synthetic CT images for magnetic resonance imaging-only prostate intensity-modulated radiation therapy treatment planning	synthetic image generation
[814]	DL	2018	Towards MR-only radiotherapy treatment planning: Synthetic CT generation using multi-view deep convolutional neural networks	Synthetic image generation
[815]	ML	2018	Comparative study of algorithms for synthetic CT generation from MRI: Consequences for MRI-guided radiation planning in the pelvic region	Synthetic image generation
[816]	ML	2018	A method to combine target volume data from 3D and 4D planned thoracic radiotherapy patient cohorts for machine learning applications	Image segmentation
[817]	DL	2019	Dosimetric evaluation of synthetic CT for head and neck radiotherapy generated by a patch-based three-dimensional convolutional neural network	Synthetic image generation
[818]	DL	2019	The impact of MRI-CT registration errors on deep learning-based synthetic CT generation	Synthetic image generation
[819]	DL	2019	Deep learning approaches using 2D and 3D convolutional neural networks for generating male pelvic synthetic computed tomography from magnetic resonance imaging	Synthetic image generation
[820]	DL	2019	Unpaired Mr to CT synthesis with explicit structural constrained adversarial learning	Synthetic image generation
[821]	DL	2019	Unpaired whole-body MR to CT synthesis with correlation coefficient constrained adversarial learning	Synthetic image generation

[822]	DL	2019	Generation of synthetic CT images from MRI for treatment planning and patient positioning using a 3-channel U-net trained on sagittal images	Synthetic image generation
[823]	DL	2019	Augmentation of CBCT Reconstructed from Under-Sampled Projections Using Deep Learning	Synthetic image generation
[824]	DL	2019	MRI-only brain radiotherapy: Assessing the dosimetric accuracy of synthetic CT images generated using a deep learning approach	Synthetic image generation
[825]	DL	2019	CBCT correction using a cycle-consistent generative adversarial network and unpaired training to enable photon and proton dose calculation	Synthetic image generation
[826]	DL	2019	Comparing Unet training with three different datasets to correct CBCT images for prostate radiotherapy dose calculations	Synthetic image generation
[827]	DL	2019	Deep learning for MRI-based CT synthesis: A comparison of MRI sequences and neural network architectures	Synthetic image generation
[828]	DL	2019	MRI-only based synthetic CT generation using dense cycle consistent generative adversarial networks	Synthetic image generation
[829]	DL	2019	CBCT-based synthetic MRI generation for CBCT-guided adaptive radiotherapy	Synthetic image generation
[830]	DL	2019	Image quality improvement in cone-beam CT using deep learning	Synthetic image generation
[831]	DL	2019	CT synthesis from MRI images based on deep learning methods for MRI-only radiotherapy	Synthetic image generation
[832]	DL	2019	MR-based treatment planning in radiation therapy using a deep learning approach	Synthetic image generation
[833]	DL	2019	MRI-based treatment planning for liver stereotactic body radiotherapy: Validation of a deep learning-based synthetic CT generation method	Synthetic image generation
[834]	DL	2019	Evaluation of a deep learning-based pelvic synthetic CT generation technique for MRI-based prostate proton treatment planning	Synthetic image generation
[835]	DL	2019	MRI-based treatment planning for proton radiotherapy: Dosimetric validation of a deep learning-based liver synthetic CT generation method	Synthetic image generation
[836]	DL	2019	DeepMCDose: A deep learning method for efficient monte carlo beamlet dose calculation by predictive denoising in MR-guided radiotherapy	Synthetic image generation
[837]	DL	2019	Patient-specific reconstruction of volumetric computed tomography images from a single projection view via deep learning	Synthetic image generation
[838]	DL	2019	Deep learning-based image quality improvement for low-dose computed tomography simulation in radiation therapy	Synthetic image generation
[839]	DL	2019	Synthetic CT Generation Based on T2 Weighted MRI of Nasopharyngeal Carcinoma (NPC) Using a Deep Convolutional Neural Network (DCNN)	Synthetic image generation
[840]	DL	2019	Artifacts reduction method for phase-resolved Cone-Beam CT (CBCT) images via a prior-guided CNN	Synthetic image generation
[841]	ML	2019	Generation of virtual lung single-photon emission computed tomography/CT fusion images for functional avoidance radiotherapy planning using machine learning algorithms	Synthetic image generation
[842]	ML	2019	MRI-based pseudo CT generation using classification and regression random forest	Synthetic image generation
[843]	ML	2019	Synthetic CT reconstruction using a deep spatial pyramid convolutional framework for MR-only breast radiotherapy	Synthetic Image generation

[844]	ML	2019	Dose evaluation of MRI-based synthetic CT generated using a machine learning method for prostate cancer radiotherapy	Synthetic image generation
[845]	ML	2019	MRI-based treatment planning for brain stereotactic radiosurgery: Dosimetric validation of a learning-based pseudo-CT generation method	Synthetic image generation
[846]	DL	2020	Dosimetry-Driven Quality Measure of Brain Pseudo Computed Tomography Generated From Deep Learning for MRI-Only Radiation Therapy Treatment Planning	Synthetic image generation
[847]	DL	2020	Synthetic CT generation from CBCT images via deep learning	Synthetic image generation
[848]	DL	2020	Deep learning-enabled MRI-only photon and proton therapy treatment planning for paediatric abdominal tumours	Synthetic image generation
[849]	DL	2020	Generation of abdominal synthetic CTs from 0.35T MR images using generative adversarial networks for MR-only liver radiotherapy	Synthetic image generation
[850]	DL	2020	Correction for cone beam CT image artifacts via a deep learning method	Synthetic image generation
[851]	DL	2020	Cone-beam CT-derived relative stopping power map generation via deep learning for proton radiotherapy	Synthetic image generation
[852]	DL	2020	Deep learning-based metal artifact reduction using cycle-consistent adversarial network for intensity-modulated head and neck radiation therapy treatment planning	Synthetic image generation
[853]	DL	2020	Deep learning-based virtual noncontrast CT for volumetric modulated arc therapy planning: Comparison with a dual-energy CT-based approach	Synthetic image generation
[854]	DL	2020	Head-and-Neck MRI-only radiotherapy treatment planning: From acquisition in treatment position to pseudo-CT generation [Planification de radiothérapie externe pour la sphère ORL à partir d'imagerie par résonance magnétique: de l'acquisition en position de traitement à la génération de pseudo-scanographie]	Synthetic image generation
[855]	DL	2020	Magnetic resonance image (MRI) synthesis from brain computed tomography (CT) images based on deep learning methods for magnetic resonance (MR)-guided radiotherapy	Synthetic image generation
[856]	DL	2020	Synthesize CT from paired MRI of the same patient with patch-based generative adversarial network	Synthetic image generation
[857]	DL	2020	Abdominal synthetic CT generation from MR Dixon images using a U-net trained with 'semi-synthetic' CT data	Synthetic image generation
[858]	DL	2020	CBCT-based synthetic CT generation using deep-attention cycleGAN for pancreatic adaptive radiotherapy	Synthetic image generation
[859]	DL	2020	A deep learning method for producing ventilation images from 4DCT: First comparison with technegas SPECT ventilation	Synthetic image generation
[860]	DL	2020	Self-contained deep learning-based boosting of 4D cone-beam CT reconstruction	Synthetic image generation
[861]	DL	2020	A single neural network for cone-beam computed tomography-based radiotherapy of head-and-neck, lung and breast cancer	Synthetic image generation
[862]	DL	2020	Comparison of deep learning synthesis of synthetic CTs using clinical MRI inputs	Synthetic image generation
[863]	DL	2020	Evaluation of Deep Learning to Augment Image-Guided Radiotherapy for Head and Neck and Prostate Cancers	Synthetic image generation
[864]	DL	2020	Feasibility of Multiparametric Positron Emission Tomography/Magnetic Resonance Imaging as a One-Stop Shop for Radiation Therapy Planning for Patients with Head and Neck Cancer	Synthetic image generation

[865]	DL	2020	Multi-sequence MR image-based synthetic CT generation using a generative adversarial network for head and neck MRI-only radiotherapy	Synthetic image generation
[866]	DL	2020	Estimating CT from MR Abdominal Images Using Novel Generative Adversarial Networks	Synthetic image generation
[867]	DL	2020	Simulated four-dimensional CT for markerless tumor tracking using a deep learning network with multi-task learning	Synthetic image generation
[868]	DL	2020	Evaluating the Impact of Training Loss on MR to Synthetic CT Conversion	Synthetic image generation
[869]	DL	2020	A generative adversarial network-based (GAN-based) architecture for automatic fiducial marker detection in prostate MRI-only radiotherapy simulation images	Synthetic image generation
[870]	DL	2020	Automatic online quality control of synthetic CTs	Synthetic image generation
[871]	DL	2020	Deep learning-based relative stopping power mapping generation with cone-beam CT in proton radiation therapy	Synthetic image generation
[872]	DL	2020	Pseudo-CT generation from multi-parametric MRI using a novel multi-channel multi-path conditional generative adversarial network for nasopharyngeal carcinoma patients	Synthetic image generation
[873]	DL	2020	Feasibility of synthetic computed tomography generated with an adversarial network for multi-sequence magnetic resonance-based brain radiotherapy	Synthetic image generation
[874]	DL	2020	Convolutional neural network enhancement of fast-scan low-dose cone-beam CT images for head and neck radiotherapy	Synthetic image generation
[875]	ML	2020	Towards a generalised development of synthetic CT images and assessment of their dosimetric accuracy	Synthetic image generation
[876]	ML	2020	Technical Note: Synthesizing of lung tumors in computed tomography images	Synthetic image generation
[877]	ML	2020	A Neural Network Approach for Image Reconstruction from a Single X-Ray Projection	Synthetic image generation
[878]	ML	2020	Machine-learning based MRI radiomics models for early detection of radiation-induced brain injury in nasopharyngeal carcinoma	Synthetic image generation
[879]	DL	2021	Synthetic CT Generation of the Pelvis in Patients with Cervical Cancer: A Single Input Approach Using Generative Adversarial Network	Synthetic image generation
[880]	DL	2021	Multicentre, deep learning, synthetic-CT generation for ano-rectal MR-only radiotherapy treatment planning	Synthetic image generation
[881]	DL	2021	Improving generalization in MR-to-CT synthesis in radiotherapy by using an augmented cycle generative adversarial network with unpaired data	Synthetic image generation
[882]	DL	2021	Improved CyeleGAN for MR to CT synthesis	Synthetic image generation
[883]	DL	2021	Synthetic CT generation from CBCT images via unsupervised deep learning	Synthetic image generation
[884]	DL	2021	Voxel-wise analysis for spatial characterisation of pseudo-ct errors in MRI-only radiotherapy planning	Synthetic image generation
[885]	DL	2021	Automated delineation of head and neck organs at risk using synthetic MRI-aided mask scoring regional convolutional neural network	Synthetic image generation
[886]	DL	2021	Geometric and Dosimetric Evaluation of Deep Learning-Based Automatic Delineation on CBCT-Synthesized CT and Planning CT for Breast Cancer Adaptive Radiotherapy: A Multi-Institutional Study	Synthetic image generation

[887]	DL	2021	A Deep Unsupervised Learning Model for Artifact Correction of Pelvis Cone-Beam CT	Synthetic image generation
[888]	DL	2021	Deep learning-based synthetic CT generation for MR-only radiotherapy of prostate cancer patients with 0.35T MRI linear accelerator	Synthetic image generation
[889]	DL	2021	Evaluation of novel AI-based extended field-of-view CT reconstructions	Synthetic image generation
[890]	DL	2021	Rapid 4D-MRI reconstruction using a deep radial convolutional neural network: Dracula	Synthetic image generation
[891]	DL	2021	Feasibility of Synthetic Computed Tomography Images Generated from Magnetic Resonance Imaging Scans Using Various Deep Learning Methods in the Planning of Radiation Therapy for Prostate Cancer	Synthetic image generation
[892]	DL	2021	Synthetic CT for single-fraction neoadjuvant partial breast irradiation on an MRI-linac	Synthetic image generation
[893]	DL	2021	CT-Based Pelvic T1-Weighted MR Image Synthesis Using UNet, UNet++ and Cycle-Consistent Generative Adversarial Network (Cycle-GAN)	Synthetic image generation
[894]	DL	2021	Synthetic CT generation from weakly paired MR images using cycle-consistent GAN for MR-guided radiotherapy	Synthetic image generation
[895]	DL	2021	Deep learning-based 3D image generation using a single 2D projection image	Synthetic image generation
[896]	DL	2021	Clinical validation of a commercially available deep learning software for synthetic CT generation for brain	Synthetic image generation
[897]	DL	2021	Synthesizing CT images from MR images with deep learning: Model generalization for different datasets through transfer learning	Synthetic image generation
[898]	DL	2021	CBCT-based synthetic CT generation using generative adversarial networks with disentangled representation	Synthetic image generation
[899]	DL	2021	Synthetic dual-energy CT for MRI-only based proton therapy treatment planning using label-GAN	Synthetic image generation
[900]	DL	2021	Performance of deep learning synthetic CTs for MR-only brain radiation therapy	Synthetic image generation
[901]	DL	2021	Virtual magnetic resonance lumbar spine images generated from computed tomography images using conditional generative adversarial networks	Synthetic image generation
[902]	DL	2021	MRI-Only Radiotherapy Planning for Nasopharyngeal Carcinoma Using Deep Learning	Synthetic image generation
[903]	DL	2021	Improvement of image quality for pancreatic cancer using deep learning-generated virtual monochromatic images: Comparison with single-energy computed tomography	Synthetic image generation
[904]	DL	2021	Abdominal synthetic CT reconstruction with intensity projection prior for MRI-only adaptive radiotherapy	Synthetic image generation
[905]	DL	2021	Robustness and Generalizability of Deep Learning Synthetic Computed Tomography for Positron Emission Tomography/Magnetic Resonance Imaging–Based Radiation Therapy Planning of Patients With Head and Neck Cancer	Synthetic image generation
[906]	DL	2021	Synthetic pulmonary perfusion images from 4DCT for functional avoidance using deep learning	Synthetic image generation
[907]	DL	2021	Chest CBCT-based synthetic CT using cycle-consistent adversarial network with histogram matching	Synthetic image generation
[908]	DL	2021	Deep learning-based bone suppression in chest radiographs using CT-derived features: A feasibility study	Synthetic image generation
[909]	DL	2021	Image-based shading correction for narrow-FOV truncated pelvic CBCT with deep convolutional neural networks and transfer learning	Synthetic image generation

[910]	DL	2021	A convolutional neural network for estimating cone-beam CT intensity deviations from virtual CT projections	Synthetic image generation
[911]	DL	2021	Artificial intelligence-based bone-enhanced magnetic resonance image—a computed tomography/magnetic resonance image composite image modality in nasopharyngeal carcinoma radiotherapy	Synthetic image generation
[912]	DL	2021	Pseudo Computed Tomography Image Generation from Brain Magnetic Resonance Image for Radiation Therapy Treatment Planning Using DCNN-UNET	Synthetic image generation
[913]	DL	2021	Cone-beam CT image quality improvement using Cycle-Deblur consistent adversarial networks (Cycle-Deblur GAN) for chest CT imaging in breast cancer patients	Synthetic image generation
[914]	DL	2021	DeepDose: A robust deep learning-based dose engine for abdominal tumours in a 1.5 T MRI radiotherapy system	Synthetic image generation
[915]	DL	2021	Synthetic Computed Tomography Generation from 0.35T Magnetic Resonance Images for Magnetic Resonance-Only Radiation Therapy Planning Using Perceptual Loss Models	Synthetic image generation
[916]	DL	2021	Cone Beam CT (CBCT) Based Synthetic CT Generation Using Deep Learning Methods for Dose Calculation of Nasopharyngeal Carcinoma Radiotherapy	Synthetic image generation
[917]	DL	2021	Generation of contrast-enhanced ct with residual cycle-consistent generative adversarial network (res-cyclegan)	Synthetic image generation
[918]	DL	2021	High through-plane resolution CT imaging with self-supervised deep learning	Synthetic image generation
[919]	DL	2021	Synthetic breath-hold CT generation from free-breathing CT: a novel deep learning approach to predict cardiac dose reduction in deep-inspiration breath-hold radiotherapy	Synthetic image generation
[920]	DL	2021	CT synthesis from MRI using multi-cycle GAN for head-and-neck radiation therapy	Synthetic image generation
[921]	DL	2021	Metal artifact reduction in 2D CT images with self-supervised cross-domain learning	Synthetic image generation
[922]	DL	2021	Improving CBCT quality to CT level using deep learning with generative adversarial network	Synthetic image generation
[923]	DL	2021	MV CBCT-Based Synthetic CT Generation Using a Deep Learning Method for Rectal Cancer Adaptive Radiotherapy	Synthetic image generation
[924]	DL	2021	Tn-net: A spatiotemporal plus prior image-based convolutional neural network for 4d-cbct reconstructions enhancement	Synthetic image generation
[925]	DL	2021	An MR-only acquisition and artificial intelligence based image-processing protocol for photon and proton therapy using a low field MR	Synthetic image generation
[926]	ML	2021	Magnetic resonance-driven pseudo CT image using patch-based multi-modal feature extraction and ensemble learning with stacked generalisation	Synthetic image generation
[927]	ML	2021	An adversarial machine learning framework and biomechanical model-guided approach for computing 3D lung tissue elasticity from end-expiration 3DCT	Synthetic image generation
[928]	ML	2021	Synthetic digital reconstructed radiographs for MR-only robotic stereotactic radiation therapy: A proof of concept	Synthetic image generation
[929]	ML	2021	Improved contrast and noise of megavoltage computed tomography (MVCT) through cycle-consistent generative machine learning	Synthetic image generation

[930]	ML	2021	Learning-based stopping power mapping on dual-energy CT for proton radiation therapy	Synthetic image generation
[931]	ML	2021	Generating pseudo-computerized tomography (P-CT) scan images from magnetic resonance imaging (MRI) images using machine learning algorithms based on fuzzy theory for radiotherapy treatment planning	Synthetic image generation
[932]	ML	2018	Knowledge-based automated planning for oropharyngeal cancer	Treatment planning
[933]	ML	2018	Monte Carlo tree search -based non-coplanar trajectory design for station parameter optimized radiation therapy (SPORT)	Treatment planning
[934]	ML	2018	Creation of knowledge-based planning models intended for large scale distribution: Minimizing the effect of outlier plans	Treatment planning
[935]	ML	2018	Performance comparison of knowledge-based dose prediction techniques based on limited patient data	Treatment planning
[936]	ML	2018	Selection of external beam radiotherapy approaches for precise and accurate cancer treatment	Treatment planning
[937]	ML	2018	On the feasibility of automatically selecting similar patients in highly individualized radiotherapy dose reconstruction for historic data of pediatric cancer survivors	Treatment planning
[938]	DL	2019	A feasibility study on an automated method to generate patient-specific dose distributions for radiotherapy using deep learning	Treatment planning
[939]	DL	2019	Automatic treatment planning based on three-dimensional dose distribution predicted from deep learning technique	Treatment Planning
[940]	DL	2019	Generating Pareto Optimal Dose Distributions for Radiation Therapy Treatment Planning	Treatment Planning
[941]	DL	2019	A feasibility study for predicting optimal radiation therapy dose distributions of prostate cancer patients from patient anatomy using deep learning	Treatment planning
[942]	DL	2019	Using supervised learning and guided monte carlo tree search for beam orientation optimization in radiation therapy	treatment planning
[943]	DL	2019	Intelligent inverse treatment planning via deep reinforcement learning, a proof-of-principle study in high dose-rate brachytherapy for cervical cancer	Treatment Planning
[944]	ML	2019	Approach and assessment of automated stereotactic radiotherapy planning for early stage non-small-cell lung cancer	Treatment planning
[945]	ML	2019	Comprehensive Intra-Institution stepping validation of knowledge-based models for automatic plan optimization	Treatment planning
[946]	ML	2019	Automatic planning of whole breast radiation therapy using machine learning models	Treatment planning
[947]	DL	2020	Using deep learning to predict beam-tunable Pareto optimal dose distribution for intensity-modulated radiation therapy	Treatment planning
[948]	DL	2020	Incorporating human and learned domain knowledge into training deep neural networks: A differentiable dose-volume histogram and adversarial inspired framework for generating Pareto optimal dose distributions in radiation therapy	Treatment planning
[949]	DL	2020	Automatic multi-catheter detection using deeply supervised convolutional neural network in MRI-guided HDR prostate brachytherapy	Treatment planning

[950]	DL	2020	Deep DoseNet: A deep neural network for accurate dosimetric transformation between different spatial resolutions and/or different dose calculation algorithms for precision radiation therapy	Treatment planning
[951]	DL	2020	Data-driven dose calculation algorithm based on deep U-Net	Treatment planning
[952]	DL	2020	Fast Monte Carlo dose calculation based on deep learning	Treatment planning
[953]	DL	2020	Dose prediction for head and neck radiotherapy using a three-dimensional dense dilated U-net architecture	Treatment planning
[954]	DL	2020	Automated Intensity Modulated Radiation Therapy Treatment Planning for Cervical Cancer Based on Convolution Neural Network	Treatment planning
[955]	DL	2020	Automatic Verification of Beam Apertures for Cervical Cancer Radiation Therapy	Treatment planning
[956]	DL	2020	DeepDose: Towards a fast dose calculation engine for radiation therapy using deep learning	Treatment planning
[957]	DL	2020	Automatic IMRT planning via static field fluence prediction (AIP-SFFP): a deep learning algorithm for real-time prostate treatment planning	Treatment planning
[958]	DL	2020	A New Deep-Learning-based Model for Predicting 3D Radiotherapy Dose Distribution in Various Scenarios	Treatment planning
[959]	DL	2020	A Feasibility Study for Predicting 3D Radiotherapy Dose Distribution of Lung VMAT Patients	Treatment planning
[960]	DL	2020	A deep learning model to predict dose–volume histograms of organs at risk in radiotherapy treatment plans	Treatment planning
[961]	DL	2020	Feasibility and analysis of CNN-based candidate beam generation for robotic radiosurgery	Treatment planning
[962]	DL	2020	A fast deep learning approach for beam orientation optimization for prostate cancer treated with intensity-modulated radiation therapy	treatment planning
[963]	DL	2020	Operating a treatment planning system using a deep-reinforcement learning-based virtual treatment planner for prostate cancer intensity-modulated radiation therapy treatment planning	Treatment planning
[964]	DL	2020	Technical Note: A feasibility study on deep learning-based radiotherapy dose calculation	Treatment planning
[965]	DL	2020	Boosting radiotherapy dose calculation accuracy with deep learning	Treatment planning
[966]	DL	2020	A method of using deep learning to predict three-dimensional dose distributions for intensity-modulated radiotherapy of rectal cancer	Treatment planning
[967]	ML	2020	Novel knowledge-based treatment planning model for hypofractionated radiotherapy of prostate cancer patients	Treatment planning
[968]	ML	2020	A knowledge-based intensity-modulated radiation therapy treatment planning technique for locally advanced nasopharyngeal carcinoma radiotherapy	Treatment planning
[969]	ML	2020	Technical note: Interpolated Pareto surface similarity metrics for multi-criteria optimization in radiation therapy	treatment planning
[970]	ML	2020	Knowledge Models as Teaching Aid for Training Intensity Modulated Radiation Therapy Planning: A Lung Cancer Case Study	Treatment planning
[971]	ML	2020	Surrogate-free machine learning-based organ dose reconstruction for pediatric abdominal radiotherapy	Treatment planning

[972]	ML	2020	Integration of the M6 Cyberknife in the Moderato Monte Carlo platform and prediction of beam parameters using machine learning	Treatment planning
[973]	DL	2021	Long short-term memory networks for proton dose calculation in highly heterogeneous tissues	Treatment planning
[974]	DL	2021	Personalized brachytherapy dose reconstruction using deep learning	Treatment planning
[975]	DL	2021	Convolutional neural network and transfer learning for dose volume histogram prediction for prostate cancer radiotherapy	Treatment planning
[976]	DL	2021	Deep dose plugin: Towards real-Time Monte Carlo dose calculation through a deep learning-based denoising algorithm	Treatment planning
[977]	DL	2021	Improving efficiency of training a virtual treatment planner network via knowledge-guided deep reinforcement learning for intelligent automatic treatment planning of radiotherapy	Treatment planning
[978]	DL	2021	Introducing matrix sparsity with kernel truncation into dose calculations for fluence optimization	Treatment planning
[979]	DL	2021	Clinical implementation of automated treatment planning for whole-brain radiotherapy	Treatment planning
[980]	DL	2021	Development and dosimetric assessment of an automatic dental artifact classification tool to guide artifact management techniques in a fully automated treatment planning workflow	Treatment planning
[981]	DL	2021	Predicting Three-Dimensional Dose Distribution of Prostate Volumetric Modulated Arc Therapy Using Deep Learning	Treatment planning
[982]	DL	2021	An artificial intelligence-driven agent for real-time head-and-neck IMRT plan generation using conditional generative adversarial network (cGAN)	Treatment planning
[983]	DL	2021	Prospective Clinical Feasibility Study for MRI-Only Brain Radiotherapy	Treatment planning
[984]	DL	2021	High-Particle Simulation of Monte-Carlo Dose Distribution with 3D ConvLSTMs	Treatment planning
[985]	DL	2021	DeepMC: a deep learning method for efficient Monte Carlo beamlet dose calculation by predictive denoising in magnetic resonance-guided radiotherapy	Treatment planning
[986]	DL	2021	Artificial intelligence based treatment planning of radiotherapy for locally advanced breast cancer	Treatment planning
[987]	DL	2021	Feasibility of automated planning for whole-brain radiation therapy using deep learning	Treatment planning
[988]	ML	2021	Prediction of multi-criteria optimization (MCO) parameter efficiency in volumetric modulated arc therapy (VMAT) treatment planning using machine learning (ML)	Treatment planning
[989]	ML	2021	A multivariate approach to determine electron beam parameters for a Monte Carlo 6 MV Linac model: Statistical and machine learning methods	Treatment planning
[990]	ML	2021	Conditional gradient methods for convex optimization with general affine and nonlinear constraints	Treatment planning
[991]	ML	2021	Clinical integration of machine learning for curative-intent radiation treatment of patients with prostate cancer	Treatment planning
[992]	ML	2021	Outcome-based multiobjective optimization of lymphoma radiation therapy plans	Treatment planning
[993]	ML	2021	The feasibility of a dose painting procedure to treat prostate cancer based on mpMR images and hierarchical clustering	Treatment planning

[994]	ML	2021	A data-driven approach to optimal beam/arc angle selection for liver stereotactic body radiation therapy treatment planning	Treatment planning
[995]	ML	2021	Clinical Experience With Machine Learning-Based Automated Treatment Planning for Whole Breast Radiation Therapy	Treatment Planning

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