Dan Nguyen

List of Publications by Year
in descending order

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64 papers	2,527 citations	201674 27 h-index	214800 47 g-index
64 all docs	64 docs citations	64 times ranked	1855 citing authors

#	Article	IF	Citations
1	Intentional deep overfit learning (IDOL): A novel deep learning strategy for adaptive radiation therapy. Medical Physics, 2022, 49, 488-496.	3.0	16
2	Siteâ€agnostic 3D dose distribution prediction with deep learning neural networks. Medical Physics, 2022, 49, 1391-1406.	3.0	10
3	Towards a safe and efficient clinical implementation of machine learning in radiation oncology by exploring model interpretability, explainability and data-model dependency. Physics in Medicine and Biology, 2022, 67, 11TR01.	3.0	21
4	Prediction of Type and Recurrence of Atrial Fibrillation after Catheter Ablation via Left Atrial Electroanatomical Voltage Mapping Registration and Multilayer Perceptron Classification: A Retrospective Study. Sensors, 2022, 22, 4058.	3.8	1
5	Semi-automatic sigmoid colon segmentation in CT for radiation therapy treatment planning via an iterative 2.5-D deep learning approach. Medical Image Analysis, 2021, 68, 101896.	11.6	18
6	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. Physics in Medicine and Biology, 2021, 66, 054002.	3.0	23
7	Treating Glioblastoma Multiforme (GBM) with super hyperfractionated radiation therapy: Implication of temporal dose fractionation optimization including cancer stem cell dynamics. PLoS ONE, 2021, 16, e0245676.	2.5	8
8	Improving proton dose calculation accuracy by using deep learning. Machine Learning: Science and Technology, 2021, 2, 015017.	5.0	16
9	Artificial intelligence and machine learning for medical imaging: A technology review. Physica Medica, 2021, 83, 242-256.	0.7	135
10	Deep learning can accelerate and quantify simulated localized correlated spectroscopy. Scientific Reports, 2021, 11, 8727.	3.3	13
11	Deep dose plugin: towards real-time Monte Carlo dose calculation through a deep learning-based denoising algorithm. Machine Learning: Science and Technology, 2021, 2, 025033.	5.0	20
12	Synthetic CT generation from CBCT images via unsupervised deep learning. Physics in Medicine and Biology, 2021, 66, 115019.	3.0	26
13	A reinforcement learning application of a guided Monte Carlo Tree Search algorithm for beam orientation selection in radiation therapy. Machine Learning: Science and Technology, 2021, 2, 035013.	5.0	6
14	Deep Learningâ€“Based COVID-19 Pneumonia Classification Using Chest CT Images: Model Generalizability. Frontiers in Artificial Intelligence, 2021, 4, 694875.	3.4	19
15	A sensitivity analysis of probability maps in deepâ€learningâ€based anatomical segmentation. Journal of Applied Clinical Medical Physics, 2021, 22, 105-119.	1.9	2
16	A feasibility study on deep learningâ€based individualized 3D dose distribution prediction. Medical Physics, 2021, 48, 4438-4447.	3.0	10
17	Latent space arc therapy optimization. Physics in Medicine and Biology, 2021, 66, .	3.0	0
18	A deep learning-based framework for segmenting invisible clinical target volumes with estimated uncertainties for post-operative prostate cancer radiotherapy. Medical Image Analysis, 2021, 72, 102101.	11.6	32

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19	Synthesizing CT images from MR images with deep learning: model generalization for different datasets through transfer learning. Biomedical Physics and Engineering Express, 2021, 7, 025020.	1.2	15
20	Generalizability issues with deep learning models in medicine and their potential solutions: illustrated with cone-beam computed tomography (CBCT) to computed tomography (CT) image conversion. Machine Learning: Science and Technology, 2021, 2, 015007.	5.0	20
21	PSA-Net: Deep learningâ€“based physician styleâ€“aware segmentation network for postoperative prostate cancer clinical target volumes. Artificial Intelligence in Medicine, 2021, 121, 102195.	6.5	24
22	Deep Learning Enables Prostate MRI Segmentation: A Large Cohort Evaluation With Inter-Rater Variability Analysis. Frontiers in Oncology, 2021, 11, 801876.	2.8	6
23	A fast deep learning approach for beam orientation optimization for prostate cancer treated with intensityâ€modulated radiation therapy. Medical Physics, 2020, 47, 880-897.	3.0	18
24	Incorporating human and learned domain knowledge into training deep neural networks: A differentiable doseâ€volume histogram and adversarial inspired framework for generating Pareto optimal dose distributions in radiation therapy. Medical Physics, 2020, 47, 837-849.	3.0	40
25	Technical Note: A feasibility study on deep learningâ€based radiotherapy dose calculation. Medical Physics, 2020, 47, 753-758.	3.0	33
26	Dose prediction with deep learning for prostate cancer radiation therapy: Model adaptation to different treatment planning practices. Radiotherapy and Oncology, 2020, 153, 228-235.	0.6	45
27	Boosting radiotherapy dose calculation accuracy with deep learning. Journal of Applied Clinical Medical Physics, 2020, 21, 149-159.	1.9	20
28	Operating a treatment planning system using a deepâ€reinforcement learningâ€based virtual treatment planner for prostate cancer intensityâ€modulated radiation therapy treatment planning. Medical Physics, 2020, 47, 2329-2336.	3.0	52
29	Mining Domain Knowledge: Improved Framework Towards Automatically Standardizing Anatomical Structure Nomenclature in Radiotherapy. IEEE Access, 2020, 8, 105286-105300.	4.2	8
30	Using deep learning to predict beamâ€tunable Pareto optimal dose distribution for intensityâ€modulated radiation therapy. Medical Physics, 2020, 47, 3898-3912.	3.0	16
31	An introduction to deep learning in medical physics: advantages, potential, and challenges. Physics in Medicine and Biology, 2020, 65, 05TR01.	3.0	123
32	On the robustness of deep learning-based lung-nodule classification for CT images with respect to image noise. Physics in Medicine and Biology, 2020, 65, 245037.	3.0	13
33	A sparse orthogonal collimator for small animal intensityâ€modulated radiation therapy. Part II: hardware development and commissioning. Medical Physics, 2019, 46, 5733-5747.	3.0	10
34	A sparse orthogonal collimator for small animal intensityâ€modulated radiation therapy part I: Planning system development and commissioning. Medical Physics, 2019, 46, 5703-5713.	3.0	7
35	3D radiotherapy dose prediction on head and neck cancer patients with a hierarchically densely connected U-net deep learning architecture. Physics in Medicine and Biology, 2019, 64, 065020.	3.0	204
36	A feasibility study for predicting optimal radiation therapy dose distributions of prostate cancer patients from patient anatomy using deep learning. Scientific Reports, 2019, 9, 1076.	3.3	181

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37	Generating synthesized computed tomography (CT) from cone-beam computed tomography (CBCT) using CycleGAN for adaptive radiation therapy. Physics in Medicine and Biology, 2019, 64, 125002.	3.0	170
38	Threeâ€dimensional dose prediction for lung IMRT patients with deep neural networks: robust learning from heterogeneous beam configurations. Medical Physics, 2019, 46, 3679-3691.	3.0	115
39	MRI-only brain radiotherapy: Assessing the dosimetric accuracy of synthetic CT images generated using a deep learning approach. Radiotherapy and Oncology, 2019, 136, 56-63.	0.6	105
40	Intelligent inverse treatment planning via deep reinforcement learning, a proof-of-principle study in high dose-rate brachytherapy for cervical cancer. Physics in Medicine and Biology, 2019, 64, 115013.	3.0	70
41	Super-Resolution 1H Magnetic Resonance Spectroscopic Imaging Utilizing Deep Learning. Frontiers in Oncology, 2019, 9, 1010.	2.8	49
42	Generating Pareto Optimal Dose Distributions for Radiation Therapy Treatment Planning. Lecture Notes in Computer Science, 2019, , 59-67.	1.3	13
43	A Prospective 4Ï€ Radiation Therapy Clinical Study in Recurrent High-Grade Glioma Patients. International Journal of Radiation Oncology Biology Physics, 2018, 101, 144-151.	0.8	36
44	<scp>VMAT</scp> optimization with dynamic collimator rotation. Medical Physics, 2018, 45, 2399-2410.	3.0	15
45	Integrated beam orientation and scanningâ€spot optimization in intensityâ€modulated proton therapy for brain and unilateral head and neck tumors. Medical Physics, 2018, 45, 1338-1350.	3.0	45
46	Fraction-variant beam orientation optimization for non-coplanar IMRT. Physics in Medicine and Biology, 2018, 63, 045015.	3.0	17
47	Fully automated organ segmentation in male pelvic CT images. Physics in Medicine and Biology, 2018, 63, 245015.	3.0	97
48	Accurate real time localization tracking in a clinical environment using Bluetooth Low Energy and deep learning. PLoS ONE, 2018, 13, e0205392.	2.5	43
49	Segmentation of the prostate and organs at risk in male pelvic CT images using deep learning. Biomedical Physics and Engineering Express, 2018, 4, 055003.	1.2	65
50	Treatment planning comparison of IMPT, VMAT and 4Ï€ radiotherapy for prostate cases. Radiation Oncology, 2017, 12, 10.	2.7	67
51	Deterministic direct aperture optimization using multiphase piecewise constant segmentation. Medical Physics, 2017, 44, 5596-5609.	3.0	12
52	Predicting liver SBRT eligibility and plan quality for VMAT and 4Ï€ plans. Radiation Oncology, 2017, 12, 70.	2.7	28
53	A comprehensive formulation for volumetric modulated arc therapy planning. Medical Physics, 2016, 43, 4263-4272.	3.0	17
54	Computerized triplet beam orientation optimization for MRIâ€guided Coâ€60 radiotherapy. Medical Physics, 2016, 43, 5667-5675.	3.0	14

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55	A novel software and conceptual design of the hardware platform for intensity modulated radiation therapy. Medical Physics, 2016, 43, 917-929.	3.0	14
56	Viability of Noncoplanar VMAT for liver SBRT compared with coplanar VMAT and beam orientation optimized 4Ï€ IMRT. Advances in Radiation Oncology, 2016, 1, 67-75.	1.2	43
57	The development and verification of a highly accurate collision prediction model for automated noncoplanar plan delivery. Medical Physics, 2015, 42, 6457-6467.	3.0	53
58	Dose domain regularization of MLC leaf patterns for highly complex IMRT plans. Medical Physics, 2015, 42, 1858-1870.	3.0	23
59	Incorporating Cancer Stem Cells in Radiation Therapy Treatment Response Modeling and theÂImplication in Glioblastoma Multiforme Treatment Resistance. International Journal of Radiation Oncology Biology Physics, 2015, 91, 866-875.	0.8	31
60	4Ï€ Noncoplanar Stereotactic Body Radiation Therapy for Head-and-Neck Cancer: Potential to Improve Tumor Control and Late Toxicity. International Journal of Radiation Oncology Biology Physics, 2015, 91, 401-409.	0.8	62
61	Feasibility of extreme dose escalation for glioblastoma multiforme using 4Ï€ radiotherapy. Radiation Oncology, 2014, 9, 239.	2.7	42
62	Feasibility of using intermediate x-ray energies for highly conformal extracranial radiotherapy. Medical Physics, 2014, 41, 041709.	3.0	11
63	Feasibility of prostate robotic radiation therapy on conventional C-arm linacs. Practical Radiation Oncology, 2014, 4, 254-260.	2.1	38
64	Integral dose investigation of non-coplanar treatment beam geometries in radiotherapy. Medical Physics, 2013, 41, 011905.	3.0	21