Nawaid Usmani

List of Publications by Year
in descending order

83	2,290	361388	276858
papers	citations	20 h-index	41 g-index

87	87	87	4070
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Autonomous Prostate Segmentation in 2D B-Mode Ultrasound Images. Applied Sciences (Switzerland), 2022, 12, 2994.	2.5	0
2	Accurate Tissue Deformation Modeling Using a Kalman Filter and ADMM-Based Projective Dynamics. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2194-2203.	5.8	4
3	Impact of dose-capping chemotherapy in concurrent chemoradiotherapy in rectal cancer patients. Journal of Oncology Pharmacy Practice, 2021, 27, 1596-1603.	0.9	1
4	Dosimetric Parameters Predicting Late Small Bowel Toxicity in Patients With Rectal Cancer Receiving Neoadjuvant Chemoradiation. Practical Radiation Oncology, 2021, 11, e70-e79.	2.1	3
5	Trans-ancestry genome-wide association meta-analysis of prostate cancer identifies new susceptibility loci and informs genetic risk prediction. Nature Genetics, 2021, 53, 65-75.	21.4	264
6	Additional SNPs improve risk stratification of a polygenic hazard score for prostate cancer. Prostate Cancer and Prostatic Diseases, 2021, 24, 532-541.	3.9	16
7	Polygenic hazard score is associated with prostate cancer in multi-ethnic populations. Nature Communications, 2021, 12, 1236.	12.8	40
8	Intraoperative optimization of seed implantation plan in breast brachytherapy. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 1027-1035.	2.8	1
9	Robotic Ultrasound Scanning With Real-Time Image-Based Force Adjustment: Quick Response for Enabling Physical Distancing During the COVID-19 Pandemic. Frontiers in Robotics and AI, 2021, 8, 645424.	3.2	23
10	A polymorphism in the promoter of FRAS1 is a candidate SNP associated with metastatic prostate cancer. Prostate, 2021, 81, 683-693.	2.3	5
11	More Is Not Better When It Comes to Treating Rectal Cancer With Multimodal Chemoradiation Beyond the Standard Radiation Dose of 5040 cGy. Diseases of the Colon and Rectum, 2021, Publish Ahead of Print, .	1.3	3
12	The Digital Divide: A Retrospective Survey of Digital Rectal Examinations during the Workup of Rectal Cancers. Healthcare (Switzerland), 2021, 9, 855.	2.0	2
13	Effects of Exercise on Cancer Treatment Efficacy: A Systematic Review of Preclinical and Clinical Studies. Cancer Research, 2021, 81, 4889-4895.	0.9	34
14	Clinical Outcomes of the CHIRP Trial: A Phase II Prospective Randomized Trial of Conventionally Fractionated Versus Moderately Hypofractionated Prostate and Pelvic Nodal Radiation Therapy in Patients With High-Risk Prostate Cancer. Practical Radiation Oncology, 2021, 11, 384-393.	2.1	12
15	Feasibility, Safety, and Preliminary Efficacy of Exercise During and After Neoadjuvant Rectal Cancer Treatment: A Phase II Randomized Controlled Trial. Clinical Colorectal Cancer, 2021, 20, 216-226.	2.3	14
16	Gastrointestinal and genitourinary toxicity profiles of metformin versus placebo in men with prostate cancer receiving prostate radiotherapy: interim toxicity results of a double-blinded, multicenter, phase II randomized controlled trial. Radiation Oncology, 2021, 16, 212.	2.7	7
17	Effects of exercise during and after neoadjuvant chemoradiation on symptom burden and quality of life in rectal cancer patients: a phase II randomized controlled trial. Journal of Cancer Survivorship, 2021, , 1.	2.9	8
18	Radiogenomics Consortium Genome-Wide Association Study Meta-Analysis of Late Toxicity After Prostate Cancer Radiotherapy. Journal of the National Cancer Institute, 2020, 112, 179-190.	6.3	71

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19	Informal caregiver quality of life in a palliative oncology population. Supportive Care in Cancer, 2020, 28, 1695-1702.	2.2	24
20	PEG-PLGA nanospheres loaded with nanoscintillators and photosensitizers for radiation-activated photodynamic therapy. Acta Biomaterialia, 2020, 117, 335-348.	8.3	24
21	The CHEK2 Variant C.349A>G Is Associated with Prostate Cancer Risk and Carriers Share a Common Ancestor. Cancers, 2020, 12, 3254.	3.7	16
22	2021 Canadian Urological Association (CUA)-Canadian Uro Oncology Group (CUOG) guideline: Management of castration-resistant prostate cancer (CRPC) (full-text). Canadian Urological Association Journal, 2020, 15, E81-9.	0.6	10
23	Cohort profile: the Alberta Prostate Cancer Research Initiative (APCaRI) Registry and Biorepository facilitates technology translation to the clinic through the use of linked, longitudinal clinical and patient-reported data and biospecimens from men in Alberta, Canada. BMJ Open, 2020, 10, e037222.	1.9	0
24	An Integrator-Backstepping Control Approach for Three-Dimensional Needle Steering. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2204-2214.	5.8	5
25	2019 Canadian Urological Association (CUA)-Canadian Uro Oncology Group (CUOG) guidelines for the management of castration-resistant prostate cancer (CRPC). Canadian Urological Association Journal, 2019, 13, 307-314.	0.6	21
26	An Admittance-Controlled Robotic Assistant for Semi-Autonomous Breast Ultrasound Scanning. , 2019, , .		19
27	Shared heritability and functional enrichment across six solid cancers. Nature Communications, 2019, 10, 431.	12.8	88
28	Prognostic utility of pre- and post-treatment FDG-PET parameters in anal squamous cell carcinoma. Radiotherapy and Oncology, 2019, 136, 21-28.	0.6	20
29	Circulating Metabolic Biomarkers of Screen-Detected Prostate Cancer in the ProtecT Study. Cancer Epidemiology Biomarkers and Prevention, 2019, 28, 208-216.	2.5	21
30	Initial clinical assessment of â€œcenter-specificâ€•automated treatment plans for low-dose-rate prostate brachytherapy. Brachytherapy, 2018, 17, 476-488.	0.5	3
31	Surgeon-in-the-Loop 3-D Needle Steering Through Ultrasound-Guided Feedback Control. IEEE Robotics and Automation Letters, 2018, 3, 469-476.	5.1	6
32	Humanâ€“Machine Collaboration Modalities for Semi-Automated Needle Insertion Into Soft Tissue. IEEE Robotics and Automation Letters, 2018, 3, 477-483.	5.1	9
33	Intraoperative Tissue Youngâ€™s Modulus Identification During Needle Insertion Using a Laterally Actuated Needle. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 371-381.	4.7	9
34	Predictors of adherence to aerobic exercise in rectal cancer patients during and after neoadjuvant chemoradiotherapy. Psychology, Health and Medicine, 2018, 23, 224-231.	2.4	9
35	Model Averaging and Input Transformation for 3D Needle Steering. Journal of Medical Robotics Research, 2018, 03, 1841004.	1.2	1
36	Germline variation at 8q24 and prostate cancer risk in men of European ancestry. Nature Communications, 2018, 9, 4616.	12.8	43

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37	Exercise during and after neoadjuvant rectal cancer treatment (the EXERT trial): study protocol for a randomized controlled trial. Trials, 2018, 19, 35.	1.6	14
38	Model-Based Needle Steering in Soft Tissue via Lateral Needle Actuation. IEEE Robotics and Automation Letters, 2018, 3, 3930-3936.	5.1	11
39	Association analyses of more than 140,000 men identify 63 new prostate cancer susceptibility loci. Nature Genetics, 2018, 50, 928-936.	21.4	652
40	Fine-mapping of prostate cancer susceptibility loci in a large meta-analysis identifies candidate causal variants. Nature Communications, 2018, 9, 2256.	12.8	88
41	Quantifying 125 I placement accuracy in prostate brachytherapy using postimplant transrectal ultrasound images. Brachytherapy, 2017, 16, 306-312.	0.5	5
42	Clinical factors and dosimetry associated with the development of prostate brachytherapyâ€“related urethral strictures: A matched caseâ€“control study. Brachytherapy, 2017, 16, 797-805.	0.5	6
43	A data-driven soft sensor for needle deflection in heterogeneous tissue using just-in-time modelling. Medical and Biological Engineering and Computing, 2017, 55, 1401-1414.	2.8	17
44	Feedback-linearization-based 3D needle steering in a Frenet-Serret frame using a reduced order bicycle model. , 2017, , .		7
45	Semi-Automated Needle Steering in Biological Tissue Using an Ultrasound-Based Deflection Predictor. Annals of Biomedical Engineering, 2017, 45, 924-938.	2.5	9
46	A probabilistic threshold analysis of metformin (Met) with enzalutamide (Enza) to determine the cost and added efficacy needed to make such a combination theray cost-effective (CE).. Journal of Clinical Oncology, 2017, 35, e577-e577.	1.6	0
47	Unexpected Seed Migration in Prostate Brachytherapy Implants Coincident with Change in Seed Stranding Product. Cureus, 2017, 9, e1243.	0.5	2
48	Ultrasound-Guided Model Predictive Control of Needle Steering in Biological Tissue. Journal of Medical Robotics Research, 2016, 01, 1640007.	1.2	30
49	Constrained optimal control of needle deflection for semi-manual steering. , 2016, , .		6
50	Needle path control during insertion in soft tissue using a force-sensor-based deflection estimator. , 2016, , .		4
51	Introducing notched flexible needles with increased deflection curvature in soft tissue. , 2016, , .		7
52	Real-time needle shape prediction in soft-tissue based on image segmentation and particle filtering. , 2016, , .		12
53	An integrator-backstepping control approach for out-of-plane needle deflection minimization. , 2016, , .		4
54	Partial estimation of needle tip orientation in generalized coordinates in ultrasound image-guided needle insertion. , 2016, , .		8

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55	Patient reported quality of life after helical IMRT based concurrent chemoradiation of locally advanced anal cancer. Radiotherapy and Oncology, 2016, 120, 228-233.	0.6	31
56	A Real-Time Estimator for Needle Deflection During Insertion Into Soft Tissue Based on Adaptive Modeling of Needleâ€“Tissue Interactions. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2601-2612.	5.8	20
57	Needle Tracking and Deflection Prediction for Robot-Assisted Needle Insertion Using 2D Ultrasound Images. Journal of Medical Robotics Research, 2016, 01, 1640001.	1.2	18
58	Exercise motivation in rectal cancer patients during and after neoadjuvant chemoradiotherapy. Supportive Care in Cancer, 2016, 24, 2919-26.	2.2	14
59	Estimating needle tip deflection in biological tissue from a single transverse ultrasound image: application to brachytherapy. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1347-1359.	2.8	14
60	Adaptive Quasi-Static Modelling of Needle Deflection During Steering in Soft Tissue. IEEE Robotics and Automation Letters, 2016, 1, 916-923.	5.1	23
61	Sliding-Based Switching Control for Image-Guided Needle Steering in Soft Tissue. IEEE Robotics and Automation Letters, 2016, 1, 860-867.	5.1	23
62	Mechanics of Tissue Cutting During Needle Insertion in Biological Tissue. IEEE Robotics and Automation Letters, 2016, 1, 800-807.	5.1	52
63	Multiactuator Haptic Feedback on the Wrist for Needle Steering Guidance in Brachytherapy. IEEE Robotics and Automation Letters, 2016, 1, 852-859.	5.1	34
64	Towards understanding the breast cancer epigenome: a comparison of genome-wide DNA methylation and gene expression data. Oncotarget, 2016, 7, 3002-3017.	1.8	19
65	Role of serial multiparametric magnetic resonance imaging in prostate cancer active surveillance. World Journal of Radiology, 2016, 8, 410.	1.1	12
66	Prospective phase II study of tomotherapy based chemoradiation treatment for locally advanced anal cancer. Radiotherapy and Oncology, 2015, 117, 234-239.	0.6	17
67	Extended bicycle model for needle steering in soft tissue. , 2015, , .		10
68	3D shape visualization of curved needles in tissue from 2D ultrasound images using RANSAC. , 2015, , .		18
69	A virtual sensor for needle deflection estimation during soft-tissue needle insertion. , 2015, , .		11
70	Needle shape estimation in soft tissue based on partial ultrasound image observation. , 2015, , .		5
71	Does location of prostate cancer by sextant biopsies predict for relapse after 125I seed implant brachytherapy?. Brachytherapy, 2015, 14, 788-794.	0.5	3
72	Implanted brachytherapy seed movement reflecting transrectal ultrasound probe-induced prostate deformation. Brachytherapy, 2015, 14, 809-817.	0.5	7

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73	[11C]-Choline PET/CT-guided simultaneous integrated boost to dominant intraprostatic lesions using intensity-modulated radiation therapy with helical tomotherapy technique for dose escalation. Journal of Radiation Oncology, 2015, 4, 87-93.	0.7	0
74	The Prediction of Radiotherapy Toxicity Using Single Nucleotide Polymorphismâ˜Based Models: A Step Toward Prevention. Seminars in Radiation Oncology, 2015, 25, 281-291.	2.2	52
75	A mechanics-based model for simulation and control of flexible needle insertion in soft tissue. , 2015, , .		35
76	Role for ¹¹C-choline PET in active surveillance of prostate cancer. Canadian Urological Association Journal, 2015, 9, 98.	0.6	2
77	Distinguishing prostate-specific antigen bounces from biochemical failure after low-dose rate prostate brachytherapy. Journal of Contemporary Brachytherapy, 2014, 3, 247-253.	0.9	10
78	Single-nucleotide polymorphisms studied for associations with urinary toxicity from 125I prostate brachytherapy implants. Brachytherapy, 2014, 13, 285-291.	0.5	6
79	Comparison of low and intermediate source strengths for 125I prostate brachytherapy implants. Brachytherapy, 2013, 12, 442-448.	0.5	5
80	Force-Sensor-Based Estimation of Needle Tip Deflection in Brachytherapy. Journal of Sensors, 2013, 2013, 1-10.	1.1	23
81	Can Images Obtained With High Field Strength Magnetic Resonance Imaging Reduce Contouring Variability of the Prostate?. International Journal of Radiation Oncology Biology Physics, 2011, 80, 728-734.	0.8	28
82	Lack of significant intraprostatic migration of stranded iodine-125 sources in prostate brachytherapy implants. Brachytherapy, 2011, 10, 275-285.	0.5	16
83	Time course of prostatic edema post permanent seed implant determined by magnetic resonance imaging. Brachytherapy, 2010, 9, 354-361.	0.5	32