

Jean Pouliot

List of Publications by Year in descending order

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112
papers

5,064
citations

81900
39
h-index

95266
68
g-index

112
all docs

112
docs citations

112
times ranked

2944
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-dose megavoltage cone-beam CT for radiation therapy. International Journal of Radiation Oncology Biology Physics, 2005, 61, 552-560.	0.8	346
2	Quality assurance for image-guided radiation therapy utilizing CT-based technologies: A report of the AAPM TG-179. Medical Physics, 2012, 39, 1946-1963.	3.0	251
3	Electronic portal imaging device detection of radioopaque markers for the evaluation of prostate position during megavoltage irradiation: A clinical study. International Journal of Radiation Oncology Biology Physics, 1997, 37, 205-212.	0.8	240
4	Inverse planning anatomy-based dose optimization for HDR-brachytherapy of the prostate using fast simulated annealing algorithm and dedicated objective function. Medical Physics, 2001, 28, 773-779.	3.0	223
5	Megavoltage cone-beam CT: System description and clinical applications. Medical Dosimetry, 2006, 31, 51-61.	0.9	181
6	(Non)-migration of radiopaque markers used for on-line localization of the prostate with an electronic portal imaging device. International Journal of Radiation Oncology Biology Physics, 2003, 56, 862-866.	0.8	144
7	MRI-guided HDR prostate brachytherapy in standard 1.5T scanner. International Journal of Radiation Oncology Biology Physics, 2004, 59, 1414-1423.	0.8	139
8	Feasibility of high-dose-rate brachytherapy salvage for local prostate cancer recurrence after radiotherapy: The University of California-San Francisco experience. International Journal of Radiation Oncology Biology Physics, 2007, 67, 1106-1112.	0.8	136
9	Inverse planning for HDR prostate brachytherapy used to boost dominant intraprostatic lesions defined by magnetic resonance spectroscopy imaging. International Journal of Radiation Oncology Biology Physics, 2004, 59, 1196-1207.	0.8	135
10	The need for application-based adaptation of deformable image registration. Medical Physics, 2013, 40, 011702.	3.0	132
11	Daily electronic portal imaging for morbidly obese men undergoing radiotherapy for localized prostate cancer. International Journal of Radiation Oncology Biology Physics, 2004, 59, 6-10.	0.8	114
12	Phase II Trial of Combined High-Dose-Rate Brachytherapy and External Beam Radiotherapy for Adenocarcinoma of the Prostate: Preliminary Results of RTOG 0321. International Journal of Radiation Oncology Biology Physics, 2010, 78, 751-758.	0.8	111
13	Optimization of permanent 125I prostate implants using fast simulated annealing. International Journal of Radiation Oncology Biology Physics, 1996, 36, 711-720.	0.8	98
14	Low dose megavoltage cone beam computed tomography with an unflattened 4 MV beam from a carbon target. Medical Physics, 2008, 35, 5777-5786.	3.0	81
15	Patient dose considerations for routine megavoltage cone-beam CT imaging. Medical Physics, 2007, 34, 1819-1827.	3.0	80
16	Inverse planning for interstitial gynecologic template brachytherapy: truly anatomy-based planning. International Journal of Radiation Oncology Biology Physics, 2002, 54, 1243-1251.	0.8	79
17	Seed misplacement and stabilizing needles in transperineal permanent prostate implants. Radiotherapy and Oncology, 2000, 55, 59-63.	0.6	77
18	Registration of MR prostate images with biomechanical modeling and nonlinear parameter estimation. Medical Physics, 2006, 33, 446-454.	3.0	72

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19	Dose calculation using megavoltage cone-beam CT. International Journal of Radiation Oncology Biology Physics, 2007, 67, 1201-1210.	0.8	72
20	Early clinical experience with anatomy-based inverse planning dose optimization for high-dose-rate boost of the prostate. International Journal of Radiation Oncology Biology Physics, 2002, 54, 86-100.	0.8	67
21	Comparison of inverse planning simulated annealing and geometrical optimization for prostate high-dose-rate brachytherapy. Brachytherapy, 2004, 3, 147-152.	0.5	66
22	Surgical resection and permanent iodine-125 brachytherapy for brain metastases. Journal of Neuro-Oncology, 2009, 91, 83-93.	2.9	66
23	Site-specific deformable imaging registration algorithm selection using patient-based simulated deformations. Medical Physics, 2013, 40, 041911.	3.0	66
24	Measurement of craniocaudal catheter displacement between fractions in computed tomography-based high dose rate brachytherapy of prostate cancer. Journal of Applied Clinical Medical Physics, 2007, 8, 1-13.	1.9	62
25	Sensorless Motion Planning for Medical Needle Insertion in Deformable Tissues. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 217-225.	3.2	62
26	Automated seed detection and three-dimensional reconstruction. II. Reconstruction of permanent prostate implants using simulated annealing. Medical Physics, 2001, 28, 2272-2279.	3.0	61
27	Optimization of HDR brachytherapy dose distributions using linear programming with penalty costs. Medical Physics, 2006, 33, 4012-4019.	3.0	55
28	Evaluation of PCISO for customized, 3D printed, gynecologic HDR brachytherapy applicators. Journal of Applied Clinical Medical Physics, 2015, 16, 246-253.	1.9	55
29	Calibration of an amorphous-silicon flat panel portal imager for exit-beam dosimetry. Medical Physics, 2006, 33, 584-594.	3.0	52
30	Permanent prostate implant using high activity seeds and inverse planning with fast simulated annealing algorithm: A 12-year Canadian experience. International Journal of Radiation Oncology Biology Physics, 2007, 67, 334-341.	0.8	52
31	Image-guided radiotherapy using megavoltage cone-beam computed tomography for treatment of paraspinal tumors in the presence of orthopedic hardware. International Journal of Radiation Oncology Biology Physics, 2006, 66, 323-326.	0.8	50
32	Clinical applications of custom-made vaginal cylinders constructed using three-dimensional printing technology. Journal of Contemporary Brachytherapy, 2016, 3, 208-214.	0.9	49
33	Class solution in inverse planned HDR prostate brachytherapy for dose escalation of DIL defined by combined MRI/MRSI. Radiotherapy and Oncology, 2008, 88, 148-155.	0.6	48
34	3D inverse treatment planning for the tandem and ovoid applicator in cervical cancer. International Journal of Radiation Oncology Biology Physics, 2005, 63, 1270-1274.	0.8	47
35	Monte Carlo simulations of prostate implants to improve dosimetry and compare planning methods. Medical Physics, 1999, 26, 1952-1959.	3.0	46
36	Automated seed detection and three-dimensional reconstruction. I. Seed localization from fluoroscopic images or radiographs. Medical Physics, 2001, 28, 2265-2271.	3.0	44

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37	The robustness of dose distributions to displacement and migration of 125I permanent seed implants over a wide range of seed number, activity, and designs. International Journal of Radiation Oncology Biology Physics, 2004, 58, 1298-1308.	0.8	44
38	IPIP: A new approach to inverse planning for HDR brachytherapy by directly optimizing dosimetric indices. Medical Physics, 2011, 38, 4045-4051.	3.0	42
39	Inverse treatment planning based on MRI for HDR prostate brachytherapy. International Journal of Radiation Oncology Biology Physics, 2005, 61, 1267-1275.	0.8	41
40	Three-dimensional conformal external beam radiotherapy compared with permanent prostate implantation in low-risk prostate cancer based on endorectal magnetic resonance spectroscopy imaging and prostate-specific antigen level. International Journal of Radiation Oncology Biology Physics, 2006, 65, 65-72.	0.8	41
41	Performance variations among clinically available deformable image registration tools in adaptive radiotherapy – how should we evaluate and interpret the result?. Journal of Applied Clinical Medical Physics, 2016, 17, 328-340.	1.9	41
42	Dose Recalculation and the Dose-Guided Radiation Therapy (DGRT) Process Using Megavoltage Cone-Beam CT. International Journal of Radiation Oncology Biology Physics, 2009, 74, 583-592.	0.8	40
43	A three-dimensional head-and-neck phantom for validation of multimodality deformable image registration for adaptive radiotherapy. Medical Physics, 2014, 41, 121709.	3.0	40
44	A two-dimensional deformable phantom for quantitatively verifying deformation algorithms. Medical Physics, 2011, 38, 4583-4586.	3.0	38
45	Dosimetric impact of prostate volume change between CT-based HDR brachytherapy fractions. International Journal of Radiation Oncology Biology Physics, 2004, 59, 1208-1216.	0.8	37
46	Optimisation-based thermal treatment planning for catheter-based ultrasound hyperthermia. International Journal of Hyperthermia, 2010, 26, 39-55.	2.5	37
47	Expandable and rigid endorectal coils for prostate MRI: Impact on prostate distortion and rigid image registration. Medical Physics, 2005, 32, 3569-3578.	3.0	36
48	Comparison of three strategies in management of independent movement of the prostate and pelvic lymph nodes. Medical Physics, 2010, 37, 5006-5013.	3.0	36
49	Megavoltage Imaging, Megavoltage Cone Beam CT and Dose-Guided Radiation Therapy. , 2007, 40, 132-142.		35
50	Dosimetric Impact of Interfraction Catheter Movement in High-Dose Rate Prostate Brachytherapy. International Journal of Radiation Oncology Biology Physics, 2011, 80, 85-90.	0.8	35
51	The Residual Setup Errors of Different IGRT Alignment Procedures for Head and Neck IMRT and the Resulting Dosimetric Impact. International Journal of Radiation Oncology Biology Physics, 2013, 86, 170-176.	0.8	34
52	Dosimetric analysis of radiation therapy oncology group 0321: The importance of urethral dose. Practical Radiation Oncology, 2014, 4, 27-34.	2.1	33
53	A variable speed translating couch technique for total body irradiation. Medical Physics, 2000, 27, 1127-1130.	3.0	32
54	Analysis of interaction between number of implant catheters and dose-volume histograms in prostate high-dose-rate brachytherapy using a computer model. International Journal of Radiation Oncology Biology Physics, 2003, 56, 586-591.	0.8	31

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55	A training phantom for ultrasound-guided needle insertion and suturing. Brachytherapy, 2014, 13, 413-419.	0.5	30
56	Dosimetric impact of the variation of the prostate volume and shape between pretreatment planning and treatment procedure. International Journal of Radiation Oncology Biology Physics, 2002, 53, 215-221.	0.8	29
57	Toward adaptive stereotactic robotic brachytherapy for prostate cancer: Demonstration of an adaptive workflow incorporating inverse planning and an MR stealth robot. Minimally Invasive Therapy and Allied Technologies, 2010, 19, 189-202.	1.2	28
58	Inverse-planned modulated total-body irradiation. Medical Physics, 2012, 39, 2761-2764.	3.0	28
59	Anatomy-based inverse planning dose optimization in HDR prostate implant: A toxicity study. Radiotherapy and Oncology, 2005, 75, 318-324.	0.6	26
60	Towards real-time 3D ultrasound planning and personalized 3D printing for breast HDR brachytherapy treatment. Radiotherapy and Oncology, 2015, 114, 335-338.	0.6	26
61	Assessment of image quality and dose calculation accuracy on kV CBCT, MV CBCT, and MV CT images for urgent palliative radiotherapy treatments. Journal of Applied Clinical Medical Physics, 2016, 17, 279-290.	1.9	25
62	Does IGRT ensure target dose coverage of head and neck IMRT patients?. Radiotherapy and Oncology, 2012, 104, 83-90.	0.6	24
63	Relative biological effectiveness enhancement of a 125I brachytherapy seed with characteristic x rays from its constitutive materials. Medical Physics, 2002, 29, 1397-1402.	3.0	23
64	Physical performance and image optimization of megavoltage cone-beam CT. Medical Physics, 2009, 36, 1421-1432.	3.0	23
65	High-Dose Rate Brachytherapy Using Inverse Planning Simulated Annealing for Locoregionally Advanced Cervical Cancer: A Clinical Report With 2-Year Follow-Up. International Journal of Radiation Oncology Biology Physics, 2009, 75, 1329-1334.	0.8	23
66	NPIP: A skew line needle configuration optimization system for HDR brachytherapy. Medical Physics, 2012, 39, 4339-4346.	3.0	23
67	Urethra low-dose tunnels: Validation of and class solution for generating urethra-sparing dose plans using inverse planning simulated annealing for prostate high-dose-rate brachytherapy. Brachytherapy, 2012, 11, 348-353.	0.5	23
68	Class solution for inversely planned permanent prostate implants to mimic an experienced dosimetrist. Medical Physics, 2006, 33, 2773-2782.	3.0	22
69	Inverse planning simulated annealing for magnetic resonance imaging-based intracavitary high-dose-rate brachytherapy for cervical cancer. Brachytherapy, 2008, 7, 242-247.	0.5	22
70	Optimization of dose distribution for HDR brachytherapy of the prostate using Attraction-Repulsion Model. International Journal of Radiation Oncology Biology Physics, 2006, 64, 643-649.	0.8	20
71	Correction of megavoltage cone-beam CT images for dose calculation in the head and neck region. Medical Physics, 2008, 35, 900-907.	3.0	20
72	Radiation Dosimetry of a Conformal Heat-brachytherapy Applicator. Technology in Cancer Research and Treatment, 2004, 3, 347-358.	1.9	18

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73	Adaptation of the CVT algorithm for catheter optimization in high dose rate brachytherapy. Medical Physics, 2013, 40, 111724.	3.0	18
74	Dose uncertainty due to computed tomography (CT) slice thickness in CT-based high dose rate brachytherapy of the prostate cancer. Medical Physics, 2004, 31, 2543-2548.	3.0	17
75	Comparison of Dosimetric and Biologic Effective Dose Parameters for Prostate and Urethra Using ¹³¹ Cs and ¹²⁵ I for Prostate Permanent Implant Brachytherapy. International Journal of Radiation Oncology Biology Physics, 2008, 72, 247-254.	0.8	17
76	Physics strategies for sparing neural stem cells during whole-brain radiation treatments. Medical Physics, 2011, 38, 5338-5344.	3.0	17
77	Offline multiple adaptive planning strategy for concurrent irradiation of the prostate and pelvic lymph nodes. Medical Physics, 2014, 41, 021704.	3.0	17
78	Catheter-based ultrasound hyperthermia with HDR brachytherapy for treatment of locally advanced cancer of the prostate and cervix. Proceedings of SPIE, 2011, 7901, 790100.	0.8	15
79	Dosimetric aspects of inverse-planned modulated-arc total-body irradiation. Medical Physics, 2012, 39, 5263-5271.	3.0	13
80	Correction of megavoltage cone-beam CT images of the pelvic region based on phantom measurements for dose calculation purposes. Journal of Applied Clinical Medical Physics, 2009, 10, 33-42.	1.9	12
81	A dosimetric evaluation of using a single treatment plan for multiple treatment fractions within a given applicator insertion in gynecologic brachytherapy. Brachytherapy, 2013, 12, 487-494.	0.5	12
82	Phase I study of dose escalation to dominant intraprostatic lesions using high-dose-rate brachytherapy. Journal of Contemporary Brachytherapy, 2018, 10, 193-201.	0.9	12
83	Evaluating the impact of extended field-of-view <sc>CT</sc> reconstructions on <sc>CT</sc> values and dosimetric accuracy for radiation therapy. Medical Physics, 2019, 46, 892-901.	3.0	12
84	Observation study of electronic portal images for off-line verification. Radiotherapy and Oncology, 2000, 54, 47-55.	0.6	11
85	Quality Assurance of Onboard Megavoltage Computed Tomography Imaging and Target Localization Systems for On- and Off-Line Image-Guided Radiotherapy. International Journal of Radiation Oncology Biology Physics, 2008, 71, S62-S65.	0.8	9
86	Relationship between isotope half-life and prostatic edema for optimal prostate dose coverage in permanent seed implants. Medical Physics, 2008, 35, 1970-1977.	3.0	9
87	Investigation of geometric distortions on magnetic resonance and cone beam computed tomography images used for planning and verification of high-dose rate brachytherapy cervical cancer treatment. Brachytherapy, 2010, 9, 266-273.	0.5	9
88	Development of a PET-Transrectal Ultrasound Prostate Imaging System. IEEE Transactions on Nuclear Science, 2011, 58, 674-681.	2.0	9
89	Feasibility of MV CBCT-based treatment planning for urgent radiation therapy: dosimetric accuracy of MV CBCT-based dose calculations. Journal of Applied Clinical Medical Physics, 2015, 16, 458-471.	1.9	9
90	A method for restricting intracatheter dwell time variance in high-dose-rate brachytherapy plan optimization. Brachytherapy, 2016, 15, 246-251.	0.5	8

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91	EM-enhanced US-based seed detection for prostate brachytherapy. Medical Physics, 2018, 45, 2357-2368.	3.0	8
92	Patient-Specific Monte Carlo-Based Dose-Kernel Approach for Inverse Planning in Afterloading Brachytherapy. International Journal of Radiation Oncology Biology Physics, 2011, 81, 1582-1589.	0.8	7
93	Clinical Investigations Interactive, multi-modality image registrations for combined MRI/MRSI-planned HDR prostate brachytherapy. Journal of Contemporary Brachytherapy, 2011, 1, 26-31.	0.9	7
94	Image registration for prostate MR spectroscopy using modeling and optimization of force and stiffness parameters. , 2004, 2004, 1722-5.		6
95	Proton therapy is the best radiation treatment modality for prostate cancer. Medical Physics, 2007, 34, 375-378.	3.0	5
96	A spatially encoded dose difference maximal intensity projection map for patient dose evaluation: A new first line patient quality assurance tool. Medical Physics, 2011, 38, 1748-1753.	3.0	5
97	Inverse planning optimization for hybrid prostate permanent-seed implant brachytherapy plans using two source strengths. Journal of Applied Clinical Medical Physics, 2010, 11, 64-77.	1.9	4
98	High Dose Rate Brachytherapy. , 2010, , 245-278.		4
99	Image-Guided Intensity-Modulated Radiotherapy for Clinically Localized Prostate Cancer. , 2008, , 183-196.		4
100	<title>Electron beam verification with an a-Si flat-panel electronic portal imaging device</title>. , 2002, , .		3
101	The effect of the radial function on I-125 seeds used for permanent prostate implantation. Medical Dosimetry, 2004, 29, 204-209.	0.9	3
102	Clinical Benefits of Inverse Planning for High Dose Rate Prostate Brachytherapy. , 2007, , 1730-1734.		3
103	Initial experiments toward automated robotic implantation of skew-line needle arrangements for HDR brachytherapy. , 2012, , .		3
104	Modern Principles of Brachytherapy Physics. , 2010, , 224-244.		3
105	75 Permanent prostate implants and acute urinary obstruction: A multivariate analysis on edema and dosimetric parameters. Radiotherapy and Oncology, 2000, 55, 45-46.	0.6	2
106	Megavoltage cone-beam CT to complement CT-based treatment planning for HDR brachytherapy. Brachytherapy, 2006, 5, 85-86.	0.5	2
107	Are Lateral Electronic Portal Images Adequate for Accurate On-Line Daily Targeting of the Prostate? Results of a Prospective Study. Medical Dosimetry, 2008, 33, 22-29.	0.9	2
108	Measurement of small lesions near metallic implants with mega-voltage cone beam CT. , 2008, , .		1

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109	Exact reachability analysis for planning skew-line needle arrangements for automated brachytherapy. , 2014, , .		1
110	Clinical Benefits of Inverse Planning for Permanent Prostate Implant. , 2007, , 1906-1910.		0
111	Response to "In regards to Kirby et al ., Physics strategies for sparing neural stem cells during whole-brain radiation treatments,"[Med. Phys. 38, 5338 (2011)]. Medical Physics, 2012, 39, 1679-1679.	3.0	0
112	Adaptive Radiation Therapy using Megavoltage Cone-Beam CT. , 2007, , 1780-1784.		0