Nacim Betrouni

List of Publications by Year
in descending order

128 papers	3,117 citations	201385 27 h-index	174990 52 g-index
139 all docs	139 docs citations	139 times ranked	4147 citing authors

#	Article	IF	Citations
1	Neurophysiological recordings improve the accuracy of the evaluation of the outcome in perinatal hypoxic ischemic encephalopathy. European Journal of Paediatric Neurology, 2022, 36, 51-56.	0.7	1
2	Anxiety in Parkinson's disease: A resting-state high density EEG study. Neurophysiologie Clinique, 2022, 52, 202-211.	1.0	8
3	EEG-based functional connectivity and executive control in patients with Parkinson's disease and freezing of gait. Clinical Neurophysiology, 2022, 137, 207-215.	0.7	6
4	Functional networks underlying freezing of gait: a resting-state electroencephalographic study. Neurophysiologie Clinique, 2022, , .	1.0	1
5	The frontostriatal subtype of mild cognitive impairment in Parkinson's disease, but not the posterior cortical one, is associated with specific EEG alterations. Cortex, 2022, , .	1.1	0
6	Heterogeneity of PD-MCI in Candidates to Subthalamic Deep Brain Stimulation: Associated Cortical and Subcortical Modifications. Journal of Parkinson's Disease, 2022, , 1-20.	1.5	0
7	Texture Features of Magnetic Resonance Images Predict Poststroke Cognitive Impairment: Validation in a Multicenter Study. Stroke, 2022, 53, 3446-3454.	1.0	2
8	Do kinematic gait parameters help to discriminate between fallers and non-fallers with Parkinson's disease?. Clinical Neurophysiology, 2021, 132, 536-541.	0.7	7
9	Texture-based markers from structural imaging correlate with motor handicap in Parkinson's disease. Scientific Reports, 2021, 11, 2724.	1.6	10
10	Quantitative approach to early neonatal EEG visual analysis in hypoxic-ischemic encephalopathy severity: Bridging the gap between eyes and machine. Neurophysiologie Clinique, 2021, 51, 121-131.	1.0	17
11	Posterior Cortical Cognitive Deficits Are Associated With Structural Brain Alterations in Mild Cognitive Impairment in Parkinson's Disease. Frontiers in Aging Neuroscience, 2021, 13, 668559.	1.7	15
12	Texture Features of Magnetic Resonance Images: an Early Marker of Post-stroke Cognitive Impairment. Translational Stroke Research, 2020, 11, 643-652.	2.3	26
13	Texture Features of Magnetic Resonance Images: A Marker of Slight Cognitive Deficits in Parkinson's Disease. Movement Disorders, 2020, 35, 486-494.	2.2	19
14	Anxiety in Parkinson's disease is associated with changes in the brain fear circuit. Parkinsonism and Related Disorders, 2020, 80, 89-97.	1.1	16
15	Preliminary Study of the Perception of Emotions Expressed by Virtual Agents in the Context of Parkinson's Disease. , 2020, , .		0
16	The pleural thickening approximation from thoracic CT scans. Multimedia Tools and Applications, 2019, 78, 13033-13046.	2.6	2
17	Electroencephalography‐based machine learning for cognitive profiling in Parkinson's disease: Preliminary results. Movement Disorders, 2019, 34, 210-217.	2.2	49
18	Malignant pleural mesothelioma segmentation for photodynamic therapy planning. Computerized Medical Imaging and Graphics, 2018, 65, 79-92.	3.5	5

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19	EP-1556: Early deltaradiomics and PSA after radiotherapy for prostate cancer: a CKNOPRO trial ancillary study. Radiotherapy and Oncology, 2018, 127, S839-S840.	0.3	0
20	Diffusion weighted MRI as an early predictor of tumor response to hypofractionated stereotactic boost for prostate cancer. Scientific Reports, 2018, 8, 10407.	1.6	22
21	Real-time light dosimetry for intra-cavity photodynamic therapy: Application for pleural mesothelioma treatment. Photodiagnosis and Photodynamic Therapy, 2017, 18, 155-161.	1.3	4
22	Laser interstitial thermotherapy application for breast surgery: Current situation and new trends. Breast, 2017, 33, 145-152.	0.9	18
23	Quantified analysis of histological components and architectural patterns of gleason grades in apparent diffusion coefficient restricted areas upon diffusion weighted MRI for peripheral or transition zone cancer locations. Journal of Magnetic Resonance Imaging, 2017, 46, 1786-1796.	1.9	14
24	Vascular targeted photodynamic therapy with TOOKADÂ® Soluble (WST11) in localized prostate cancer: efficiency of automatic pre-treatment planning. Lasers in Medical Science, 2017, 32, 1301-1307.	1.0	22
25	5-ALA Photodynamic Therapy in Neurosurgery, Towards the Design of a Treatment Planning System: A Proof of Concept. Irbm, 2017, 38, 34-41.	3.7	7
26	Focal therapy as primary treatment for localized prostate cancer: definition, needs and future. Future Oncology, 2017, 13, 727-741.	1.1	28
27	Malignant pleural mesothelioma segmentation from thoracic CT scans. , 2017, , .		2
28	Impact of arterial input function selection on the accuracy of dynamic contrastâ€enhanced MRI quantitative analysis for the diagnosis of clinically significant prostate cancer. Journal of Magnetic Resonance Imaging, 2016, 43, 737-749.	1.9	21
29	Semi-automated rib cage segmentation in CT images for mesothelioma detection. , 2016, , .		5
30	Stacking denoising auto-encoders in a deep network to segment the brainstem on MRI in brain cancer patients: A clinical study. Computerized Medical Imaging and Graphics, 2016, 52, 8-18.	3.5	40
31	Gland and Zonal Segmentation of Prostate on T2W MR Images. Journal of Digital Imaging, 2016, 29, 730-736.	1.6	27
32	Illumination profile characterization of a light device for the dosimetry of intra-pleural photodynamic therapy for mesothelioma. Photodiagnosis and Photodynamic Therapy, 2016, 16, 23-26.	1.3	7
33	On Image Segmentation Methods Applied to Glioblastoma: State of Art and New Trends. Irbm, 2016, 37, 131-143.	3.7	28
34	Targeted approaches and innovative illumination solutions: A new era for photodynamic therapy applications in gynecologic oncology?. Photodiagnosis and Photodynamic Therapy, 2016, 13, 128-129.	1.3	8
35	Assessment of the specificity of a new folate-targeted photosensitizer for peritoneal metastasis of epithelial ovarian cancer to enable intraperitoneal photodynamic therapy. A preclinical study. Photodiagnosis and Photodynamic Therapy, 2016, 13, 130-138.	1.3	39
36	Intrapleural photodynamic therapy for malignant pleural mesothelioma: A new dosimetry approach. , 2016, , .		0

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37	Is STAPLE algorithm confident to assess segmentation methods in PET imaging?. Physics in Medicine and Biology, 2015, 60, 9473-9491.	1.6	15
38	Fischer 344 Rat: A Preclinical Model for Epithelial Ovarian Cancer Folate-Targeted Therapy. International Journal of Gynecological Cancer, 2015, 25, 1194-1200.	1.2	11
39	Understanding the pathological implications of MRI. Current Opinion in Urology, 2015, 25, 198-204.	0.9	7
40	Comparison of three light doses in the photodynamic treatment of actinic keratosis using mathematical modeling. Journal of Biomedical Optics, 2015, 20, 058001.	1.4	14
41	ProstateAtlas SimDCE: A simulation tool for dynamic contrast enhanced imaging of prostate. Irbm, 2015, 36, 166-169.	3.7	2
42	A new phantom to assess and correct geometrical distortions for Magnetic Resonance Imaging: Design and preliminary experiments. Irbm, 2015, 36, 52-60.	3.7	2
43	Computer-aided analysis of prostate multiparametric MR images: an unsupervised fusion-based approach. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1515-1526.	1.7	2
44	Intrapleural Photodynamic Therapy for Mesothelioma: What Place and Which Future?. Annals of Thoracic Surgery, 2015, 99, 2237-2245.	0.7	14
45	Light emitting fabric technologies for photodynamic therapy. Photodiagnosis and Photodynamic Therapy, 2015, 12, 1-8.	1.3	68
46	Is Daylight-PDT a good treatment option during solar eclipse?. Photodiagnosis and Photodynamic Therapy, 2015, 12, 376-377.	1.3	1
47	Focal Laser Interstitial Thermotherapy. , 2015, , 179-190.		0
48	New treatment techniques for axillary hyperhidrosis. Journal of Cosmetic and Laser Therapy, 2014, 16, 230-235.	0.3	4
49	Multiparametric MRI-Targeted TRUS Prostate Biopsies Using Visual Registration. BioMed Research International, 2014, 2014, 1-11.	0.9	30
50	Target ablation—Image-guided therapy in prostate cancer11Arnaud Marien is supported by a Grant from ARC. Inderbir Gill is a paid consultant for Hansen Medical and EDAP. Osamu Ukimura is an Advisory Board Member of SonaCare Medical LLC. All others have nothing to disclose.. Urologic Oncology: Seminars and Original Investigations, 2014, 32, 912-923.	0.8	46
51	Spectral clustering applied for dynamic contrast-enhanced MR analysis of time—intensity curves. Computerized Medical Imaging and Graphics, 2014, 38, 702-713.	3.5	8
52	A survey of prostate modeling for image analysis. Computers in Biology and Medicine, 2014, 53, 190-202.	3.9	11
53	New treatment options for onychomycosis. Journal of Cosmetic and Laser Therapy, 2014, 16, 306-310.	0.3	2
54	The role of MRI-targeted and confirmatory biopsies for cancer upstaging at selection in patients considered for active surveillance for clinically low-risk prostate cancer. World Journal of Urology, 2014, 32, 951-958.	1.2	44

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55	Introducing spatial neighbourhood in Evidential C-Means for segmentation of multi-source images: Application to prostate multi-parametric MRI. Information Fusion, 2014, 19, 61-72.	11.7	22
56	Three-dimensional skeletonization and symbolic description in vascular imaging: preliminary results. International Journal of Computer Assisted Radiology and Surgery, 2013, 8, 233-246.	1.7	6
57	Focal therapy of prostate cancer: energies and procedures. Urologic Oncology: Seminars and Original Investigations, 2013, 31, 155-167.	0.8	84
58	3D simulation of pelvic system numerical simulation for a better understanding of the contribution of the uterine ligaments. International Urogynecology Journal, 2013, 24, 2093-2098.	0.7	19
59	Numerical simulation of endovenous laser treatment of the incompetent great saphenous vein with external air cooling. Lasers in Medical Science, 2013, 28, 833-844.	1.0	7
60	Endovenous laser treatment of the great saphenous vein: Measurement of the pullback speed of the fiber by magnetic tracking. Irbm, 2013, 34, 252-256.	3.7	3
61	Efficiency of 5-ALA mediated photodynamic therapy on hypoxic prostate cancer: A preclinical study on the Dunning R3327-AT2 rat tumor model. Photodiagnosis and Photodynamic Therapy, 2013, 10, 296-303.	1.3	18
62	Laser-assisted lipolysis in the treatment of gynecomastia: a prospective study in 28 patients. Lasers in Medical Science, 2013, 28, 375-382.	1.0	28
63	Image-guided laser therapies for prostate cancer. Irbm, 2013, 34, 28-32.	3.7	3
64	An anatomically realistic and adaptable prostate phantom for laser thermotherapy treatment planning. Medical Physics, 2013, 40, 022701.	1.6	8
65	Laser-assisted lipolysis for knee remodelling: A prospective study in 30 patients. Journal of Cosmetic and Laser Therapy, 2012, 14, 59-66.	0.3	9
66	Development of a new illumination procedure for photodynamic therapy of the abdominal cavity. Journal of Biomedical Optics, 2012, 17, 038001.	1.4	11
67	Focal Laser Ablation of Prostate Cancer: Definition, Needs, and Future. Advances in Urology, 2012, 2012, 1-10.	0.6	39
68	Laser interstitial thermotherapy of small breast fibroadenomas: Numerical simulations. Lasers in Surgery and Medicine, 2012, 44, 832-839.	1.1	16
69	A dose verification tool for high-dose-rate interstitial brachytherapy treatment planning in accelerated partial breast irradiation. Brachytherapy, 2012, 11, 359-368.	0.2	3
70	ProstAtlas: A digital morphologic atlas of the prostate. European Journal of Radiology, 2012, 81, 1969-1975.	1.2	11
71	MedataWeb: A shared platform for multimodality medical images and Atlases. Irbm, 2012, 33, 223-226.	3.7	5
72	Photodynamic therapy in urology: What can we do now and where are we heading?. Photodiagnosis and Photodynamic Therapy, 2012, 9, 261-273.	1.3	55

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73	Elastic image registration for guiding focal laser ablation of prostate cancer: Preliminary results. Computer Methods and Programs in Biomedicine, 2012, 108, 213-223.	2.6	14
74	Focal laser interstitial thermotherapy (LITT) at 980 nm for prostate cancer: treatment feasibility in Dunning R3327-AT2 rat prostate tumour. BJU International, 2012, 109, 452-458.	1.3	31
75	Prostate cancer characterization on MR images using fractal features. Medical Physics, 2011, 38, 83-95.	1.6	89
76	Approche hybride combinant champs de Markov et modÃ¨le statistique de forme pour lâ€™extraction des contours de la prostate en IRM. Irbm, 2011, 32, 251-265.	3.7	0
77	Recalage gÃ©omÃ©trique non rigide pour le guidage de la thÃ©rapie focale laser du cancer de la prostate. Irbm, 2011, 32, 284-287.	3.7	0
78	Nouvelle mÃ©thode de segmentation des volumes dâ€™intÃ©rÃªt en TEPÂ: utilisation de la thÃ©orie des possibilitÃ©s. Irbm, 2011, 32, 351-362.	3.7	2
79	A model to estimate the outcome of prostate cancer photodynamic therapy with TOOKAD Soluble WST11. Physics in Medicine and Biology, 2011, 56, 4771-4783.	1.6	47
80	Use of swLORETA to localize the cortical sources of target- and distracter-elicited P300 components. Clinical Neurophysiology, 2011, 122, 1991-2002.	0.7	27
81	Small cell carcinoma of the upper urinary tract (UUT-SCC): Report of a rare entity and systematic review of the literature. Cancer Treatment Reviews, 2011, 37, 366-372.	3.4	43
82	Combined Multiparametric MRI and Targeted Biopsies Improve Anterior Prostate Cancer Detection, Staging, and Grading. Urology, 2011, 78, 1356-1362.	0.5	137
83	Zonal segmentation of prostate using multispectral magnetic resonance images. Medical Physics, 2011, 38, 6093-6105.	1.6	41
84	A New Method for Volume Segmentation of PET Images, Based on Possibility Theory. IEEE Transactions on Medical Imaging, 2011, 30, 409-423.	5.4	41
85	Local fractal and multifractal features for volumic texture characterization. Pattern Recognition, 2011, 44, 1690-1697.	5.1	54
86	Focal Laser Ablation of Prostate Cancer: Numerical Simulation of Temperature and Damage Distribution. BioMedical Engineering OnLine, 2011, 10, 45.	1.3	42
87	Pre-therapy 18F-FDG PET quantitative parameters help in predicting the response to radioimmunotherapy in non-Hodgkin lymphoma. European Journal of Nuclear Medicine and Molecular Imaging, 2010, 37, 494-504.	3.3	78
88	La gÃ©omÃ©trie fractale pour lâ€™analyse de signaux mÃ©dicauxÂ: Ã©tat de lâ€™art. Irbm, 2010, 31, 189-208.	3.7	7
89	Fractal features for localization of temporal lobe epileptic foci using SPECT imaging. Computers in Biology and Medicine, 2010, 40, 469-477.	3.9	15
90	A non rigid registration and deformation algorithm for ultrasound & MR images to guide prostate cancer therapies. , 2010, 2010, 3711-4.		4

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91	Real-time magnetic resonance imaging texture characterization of necrosis during laser interstitital thermotherapy procedures. , 2010, , .		1
92	Dijkstra's algorithm applied to 3D skeletonization of the brain vascular tree: Evaluation and application to symbolic. , 2010, 2010, 3081-4.		9
93	Les méthodes de seuillage en TEPÂ: un état de l'art. Medecine Nucleaire, 2010, 34, 119-131.	0.2	9
94	Fusion d'images en médecine nucléaireÂ: des concepts à l'application clinique. Medecine Nucleaire, 2010, 34, 431-438.	0.2	0
95	Intérât de la TEP au 18F-FDG préthérapeutique pour prédire la réponse à la radio-immunothérapie dans les lymphomes non hodgkiniens. Medecine Nucleaire, 2010, 34, 647-654.	0.2	0
96	An optimized set of 3D fractal and multifractal features for the epileptogenic focus characterization in SPECT imaging. , 2009, , .		0
97	Unsupervised texture segmentation using active contours driven by the Chernoff gradient flow. , 2009, , .		3
98	Towards an accurate and robust method based on fuzzy logic principles for the reconstruction and quantification of large volumes from MR and CT images. British Journal of Radiology, 2009, 82, 228-234.	1.0	1
99	Attention impairment in temporal lobe epilepsy: A neurophysiological approach via analysis of the P300 wave. Human Brain Mapping, 2009, 30, 2267-2277.	1.9	35
100	Le recalage en imagerie médicaleÂ: de la conception à la validation. Irbm, 2009, 30, 60-71.	3.7	6
101	Computer-assisted diagnosis of prostate cancer using DCE-MRI data: design, implementation and preliminary results. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 1-10.	1.7	77
102	Combining a deformable model and a probabilistic framework for an automatic 3D segmentation of prostate on MRI. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 181-188.	1.7	58
103	Volume quantification by fuzzy logic modelling in freehand ultrasound imaging. Ultrasonics, 2009, 49, 646-652.	2.1	3
104	Fractal and multifractal analysis: A review. Medical Image Analysis, 2009, 13, 634-649.	7.0	787
105	Fast Unsupervised Texture Segmentation Using Active Contours Model Driven by Bhattacharyya Gradient Flow. Lecture Notes in Computer Science, 2009, , 193-200.	1.0	2
106	Correction of images in an open-configuration MR imaging system for radiation therapy planning and Interventional MRI. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 283-289.	1.7	4
107	Classification of brain SPECT imaging using 3D local multifractal spectrum for epilepsy detection. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 341-346.	1.7	6
108	Automatic MRI Brain Segmentation with Combined Atlas-Based Classification and Level-Set Approach. Lecture Notes in Computer Science, 2008, , 770-778.	1.0	9

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109	Automatic 3D segmentation of prostate in MRI combining a priori knowledge, Markov fields and Bayesian framework. , 2008, 2008, 2992-5.		6
110	Toward automatic zonal segmentation of prostate by combining a deformable model and a probabilistic framework. , 2008, , .		2
111	3D multifractal analysis: Application for epilipsy detection in spect imaging. , 2008, , .		1
112	Characterization and 3D correction of geometric distortion in low-field open-magnet MRI. , 2008, 2008, 3649-52.		0
113	3D mutifractal analysis: A new tool for epileptic fit sources detection in SPECT images. , 2008, 2008, 3912-5.		2
114	A new method based on both fuzzy set and possibility theories for tumor volume segmentation on PET images. , 2008, 2008, 3122-5.		7
115	Multidimensional Models for Methodological Validation in Multifractal Analysis. Mathematical Modelling of Natural Phenomena, 2008, 3, 33-47.	0.9	1
116	An easy‐to‐use phantom and protocol for weekly PET quality assessment: A multicenter study. Medical Physics, 2008, 35, 3922-3934.	1.6	5
117	Magnetic Resonance Imaging Spatial and Time Study of Lung Water Content in Newborn Lamb: Methods and Preliminary Results. Investigative Radiology, 2008, 43, 470-480.	3.5	10
118	3D automatic segmentation and reconstruction of prostate on MR images. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5259-62.	0.5	11
119	Prostate cancer computer-assisted diagnosis software using dynamic contrast-enhanced MRI. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5567-70.	0.5	14
120	Needle positioning in interventional MRI procedure: real time optical localisation and accordance with the roadmap. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2748-51.	0.5	10
121	Multidimensional Models for Methodological Validation in Multifractal Analysis. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5543-6.	0.5	3
122	Ultrasound image guided patient setup for prostate cancer conformal radiotherapy. Pattern Recognition Letters, 2007, 28, 1808-1817.	2.6	14
123	Automatic Segmentation of Pelvic Structures From Magnetic Resonance Images for Prostate Cancer Radiotherapy. International Journal of Radiation Oncology Biology Physics, 2007, 68, 592-600.	0.4	106
124	From MIP image to MRA segmentation using fuzzy set theory. Computerized Medical Imaging and Graphics, 2007, 31, 128-140.	3.5	21
125	Segmentation of abdominal ultrasound images of the prostate using a priori information and an adapted noise filter. Computerized Medical Imaging and Graphics, 2005, 29, 43-51.	3.5	61
126	A 2D/3D matching based on a hybrid approach: improvement to the imaging flow for AVM radiosurgery. , 2005, 2005, 3071-3.		1

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127	Multimodal matching by maximisation of mutual information and optical flow technique. , 2004, 2004, 1679-82.		3
128	Registration, Matching, and Data Fusion in 2D/3D Medical Imaging: Application to DSA and MRA. Lecture Notes in Computer Science, 2003, , 778-785.	1.0	12