Jocelyne C Troccaz

List of Publications by Year
in descending order

122	2,543	201674	233421
papers	citations	27 h-index	45 g-index

136	136	136	2015
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new robot architecture for tele-echography. IEEE Transactions on Automation Science and Engineering, 2003, 19, 922-926.	2.3	138
2	Automated segmentation of the prostate in 3D MR images using a probabilistic atlas and a spatially constrained deformable model. Medical Physics, 2010, 37, 1579-1590.	3.0	121
3	Frontiers of Medical Robotics: From Concept to Systems to Clinical Translation. Annual Review of Biomedical Engineering, 2019, 21, 193-218.	12.3	99
4	Clinical Results of Percutaneous Pelvic Surgery. Computer Assisted Surgery Using Ultrasound Compared to Standard Fluoroscopy. Computer Aided Surgery, 2001, 6, 204-211.	1.8	98
5	Computer Assisted Spine Surgery. Clinical Orthopaedics and Related Research, 1997, 337, 86-96.	1.5	95
6	MRI/TRUS data fusion for prostate brachytherapy. Preliminary results. Medical Physics, 2004, 31, 1568-1575.	3.0	93
7	Prostate biopsy tracking with deformation estimation. Medical Image Analysis, 2012, 16, 562-576.	11.6	85
8	Fluoroscopy-based navigation system in spine surgery. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2007, 221, 813-820.	1.8	84
9	A realistic deformable prostate phantom for multimodal imaging and needleâ€insertion procedures. Medical Physics, 2012, 39, 2031-2041.	3.0	81
10	Targeted MRI-guided Prostate Biopsies for the Detection of Prostate Cancer: Initial Clinical Experience With Real-time 3-Dimensional Transrectal Ultrasound Guidance and Magnetic Resonance/Transrectal Ultrasound Image Fusion. Urology, 2013, 81, 1372-1378.	1.0	78
11	Computer assisted medical interventions. IEEE Engineering in Medicine and Biology Magazine, 1995, 14, 254-263.	0.8	76
12	Semi-active guiding systems in surgery. A two-dof prototype of the passive arm with dynamic constraints (PADyC). Mechatronics, 1996, 6, 399-421.	3.3	62
13	A 3-D Ultrasound Robotic Prostate Brachytherapy System With Prostate Motion Tracking. IEEE Transactions on Robotics, 2012, 28, 1382-1397.	10.3	58
14	Aid to Percutaneous Renal Access by Virtual Projection of the Ultrasound Puncture Tract onto Fluoroscopic Images. Journal of Endourology, 2007, 21, 460-465.	2.1	54
15	Atlas-based prostate segmentation using an hybrid registration. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 485-492.	2.8	52
16	Guiding systems for computer-assisted surgery: introducing synergistic devices and discussing the different approaches. Medical Image Analysis, 1998, 2, 101-119.	11.6	51
17	Development of Miniaturized Light Endoscope-Holder Robot for Laparoscopic Surgery. Journal of Endourology, 2007, 21, 911-914.	2.1	49
18	A Six-Degree-of-Freedom Passive Arm with Dynamic Constraints (PADyC) for Cardiac Surgery Application: Preliminary Experiments. Computer Aided Surgery, 2001, 6, 340-351.	1.8	48

#	Article	IF	Citations
19	A compact, compliant laparoscopic endoscope manipulator. , 0, , .		41
20	Mapping of Transrectal Ultrasonographic Prostate Biopsies. Journal of Ultrasound in Medicine, 2009, 28, 455-460.	1.7	40
21	Urologic robots and future directions. Current Opinion in Urology, 2009, 19, 114-119.	1.8	39
22	Robot-Based Tele-Echography. Journal of Ultrasound in Medicine, 2007, 26, 1611-1616.	1.7	34
23	Conformal external radiotherapy of prostatic carcinoma: requirements and experimental results. Radiotherapy and Oncology, 1993, 29, 176-183.	0.6	33
24	Development of a Novel Robot for Transperineal Needle Based Interventions: Focal Therapy, Brachytherapy and Prostate Biopsies. Journal of Urology, 2012, 188, 1369-1374.	0.4	33
25	Building a hybrid patient's model for augmented reality in surgery: A registration problem. Computers in Biology and Medicine, 1995, 25, 149-164.	7.0	32
26	TER: A System for Robotic Tele-echography. Lecture Notes in Computer Science, 2001, , 326-334.	1.3	32
27	Initial Validation of a Virtual-Reality Learning Environment for Prostate Biopsies: Realism Matters!. Journal of Endourology, 2014, 28, 453-458.	2.1	30
28	MRI/TRUS data fusion for brachytherapy. International Journal of Medical Robotics and Computer Assisted Surgery, 2006, 2, 256-261.	2.3	29
29	Patient Set-Up Using Portal Images: 2D/2D Image Registration Using Mutual Information. Computer Aided Surgery, 2000, 5, 246-262.	1.8	28
30	Rigid Registration of Freehand 3D Ultrasound and CT-Scan Kidney Images. Lecture Notes in Computer Science, 2004, , 837-844.	1.3	28
31	Design of an ultrasound-guided robotic brachytherapy needle-insertion system. , 2009, 2009, 250-3.		26
32	Prostate Biopsies Guided by Three-Dimensional Real-Time (4-D) Transrectal Ultrasonography on a Phantom: Comparative Study versus Two-Dimensional Transrectal Ultrasound-Guided Biopsies. European Urology, 2007, 52, 1097-1105.	1.9	25
33	Assessment of a percutaneous iliosacral screw insertion simulator. Orthopaedics and Traumatology: Surgery and Research, 2009, 95, 471-477.	2.0	25
34	Image-Guided Interventional Robotics: Lost in Translation?. Proceedings of the IEEE, 2022, 110, 932-950.	21.3	25
35	Achieving Dextrous Grasping by Integrating Planning and Vision-Based Sensing. International Journal of Robotics Research, 1995, 14, 445-464.	8.5	21
36	The use of localizers, robots and synergistic devices in CAS. Lecture Notes in Computer Science, 1997, , 725-736.	1.3	20

#	Article	IF	Citations
37	Computer-assisted access to the kidney. International Journal of Medical Robotics and Computer Assisted Surgery, 2005, 1, 58-66.	2.3	20
38	Estimation of urinary stone composition by automated processing of CT images. Urological Research, 2009, 37, 241-245.	1.5	20
39	A six-degree-of-freedom passive arm with dynamic constraints (PADyC) for cardiac surgery application: Preliminary experiments. Computer Aided Surgery, 2001, 6, 340-351.	1.8	19
40	Prostate Biopsy Assistance System with Gland Deformation Estimation for Enhanced Precision. Lecture Notes in Computer Science, 2009, 12, 67-74.	1.3	19
41	Towards a realistic echographic simulator. Medical Image Analysis, 2006, 10, 71-81.	11.6	18
42	Computer assisted spine surgery: A first step toward clinical, application in orthopaedics. , 1992, , .		17
43	Pre- and intra-irradiation multimodal image registration: principles and first experiments. Radiotherapy and Oncology, 1993, 29, 244-252.	0.6	16
44	Automatic Robotic Steering of Flexible Needles from 3D Ultrasound Images in Phantoms and Ex Vivo Biological Tissue. Annals of Biomedical Engineering, 2018, 46, 1385-1396.	2.5	16
45	Medical Image Computing and Computer-Aided Medical Interventions Applied to Soft Tissues: Work in Progress in Urology. Proceedings of the IEEE, 2006, 94, 1665-1677.	21.3	15
46	MR prior based automatic segmentation of the prostate in TRUS images for MR/TRUS data fusion. , 2010, , .		14
47	A virtual reality simulator combining a learning environment and clinical case database for image-guided prostate biopsy. , 2013, , .		14
48	Computer and Robot-Assisted Medical Intervention. , 2009, , 1451-1466.		14
49	BiopSym: a simulator for enhanced learning of ultrasound-guided prostate biopsy. Studies in Health Technology and Informatics, 2009, 142, 301-6.	0.3	14
50	Towards 3DÂUltrasound Image Based Soft Tissue Tracking: A Transrectal Ultrasound Prostate Image Alignment System. , 2007, 10, 26-33.		13
51	Computer-aided hepatic tumour ablation: requirements and preliminary results. Comptes Rendus - Biologies, 2002, 325, 309-319.	0.2	12
52	Fast Segmentation of the Mitral Valve Leaflet in Echocardiography. Lecture Notes in Computer Science, 2006, , 225-235.	1.3	12
53	Consistency in Augmented Reality Systems. Lecture Notes in Computer Science, 2001, , 111-122.	1.3	11
54	Image-free cup navigation inaccuracy: A two-study approach. Computer Aided Surgery, 2007, 12, 176-180.	1.8	10

#	Article	IF	Citations
55	3-D Ultrasound Probe Calibration for Computer-Guided Diagnosis and Therapy. Lecture Notes in Computer Science, 2006, , 248-259.	1.3	10
56	Development and testing of a compact endoscope manipulator for minimally invasive surgeryâ€. Computer Aided Surgery, 2005, 10, 1-13.	1.8	10
57	Computer Assisted Pericardial Puncture: Work in Progress. Computer Aided Surgery, 1997, 2, 356-364.	1.8	9
58	Simulation-based training for prostate biopsies: towards the validation of the Biopsym simulator. Minimally Invasive Therapy and Allied Technologies, 2020, 29, 359-365.	1.2	9
59	Experiments with the TER Tele-echography Robot. Lecture Notes in Computer Science, 2002, , 138-146.	1.3	9
60	Accurate Guidance for Percutaneous Access to a Specific Target in Soft Tissues: Preclinical Study of Computer-Assisted Pericardiocentesis. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 1999, 9, 259-266.	1.0	8
61	Computer-Guided Pericardiocentesis: Experimental Results and Clinical Perspectives. Herz, 2000, 25, 761-768.	1.1	8
62	Simulators for medical training: application to vascular ultrasound imaging. , 2000, 11, 51-65.		7
63	Robotic Tele-Ultrasound System (TER): Slave Robot Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 425-430.	0.4	7
64	Validating the Transfer of Skills Acquired on a Prostate Biopsy Simulator: A Prospective, Randomized, Controlled Study. Journal of Surgical Education, 2020, 77, 953-960.	2.5	7
65	Short-term memory effects of an auditory biofeedback on isometric force control: Is there a differential effect as a function of transition trials?. Human Movement Science, 2011, 30, 436-445.	1.4	6
66	First Clinical Experience in Urologic Surgery with a Novel Robotic Lightweight Laparoscope Holder. Journal of Endourology, 2013, 27, 58-63.	2.1	6
67	Results of a cohort of 200 hormone-naÃ¯ve consecutive patients with prostate cancer treated with iodine 125 permanent interstitial brachytherapy by the same multidisciplinary team. Cancer Radiotherapie: Journal De La Societe Francaise De Radiotherapie Oncologique, 2014, 18, 643-648.	1.4	6
68	Segmentation, Separation and Pose Estimation of Prostate Brachytherapy Seeds in CT Images. IEEE Transactions on Biomedical Engineering, 2015, 62, 2012-2024.	4.2	6
69	Automatic needle localization in 3D ultrasound images for brachytherapy. , 2018, , .		6
70	3D Interactive Ultrasound Image Deformation for Realistic Prostate Biopsy Simulation. Lecture Notes in Computer Science, 2014, , 122-130.	1.3	6
71	Computer-augmented surgery. Human Movement Science, 1996, 15, 445-475.	1.4	5
72	Intensity-based registration of freehand 3D ultrasound and CT-scan images of the kidney. International Journal of Computer Assisted Radiology and Surgery, 2007, 2, 31-41.	2.8	5

#	Article	IF	Citations
73	3D-2D ultrasound feature-based registration for navigated prostate biopsy: A feasibility study. , 2016, 2016, 4109-4112.		5
74	Hybrid 2Dâ€“3D ultrasound registration for navigated prostate biopsy. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 987-995.	2.8	5
75	Towards 3D Ultrasound Guided Needle Steering Robust to Uncertainties, Noise, and Tissue Heterogeneity. IEEE Transactions on Biomedical Engineering, 2021, 68, 1166-1177.	4.2	5
76	Biopsym: a learning environment for trans-rectal ultrasound guided prostate biopsies. Studies in Health Technology and Informatics, 2011, 163, 242-6.	0.3	5
77	IGOR: Image guided operating robot. Methodology, applications. , 1992, , .		4
78	Safety Issues in Surgical Robotics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 19-26.	0.4	4
79	An Information Fusion Method for the Automatic Delineation of the Bone-Soft Tissues Interface in Ultrasound Images. Lecture Notes in Computer Science, 2004, , 218-229.	1.3	4
80	Using CamiTK for rapid prototyping of interactive Computer Assisted Medical Intervention applications. , 2013, 2013, 4933-6.		4
81	Anatomical mirroring. , 2016, , .		4
82	Beveled-tip needle-steering using 3D ultrasound, mechanical-based Kalman filter and curvilinear ROI prediction. , 2016, , .		4
83	Computer ASsisted PERicardial punctures: Animal feasability study. Lecture Notes in Computer Science, 1997, , 283-294.	1.3	4
84	Simulating Complex Organ Interactions: Evaluation of a Soft Tissue Discrete Model. Lecture Notes in Computer Science, 2005, , 175-182.	1.3	4
85	Special Issue on Assembly and Task Planning for Manufacturing. IEEE Transactions on Automation Science and Engineering, 1996, 12, 157.	2.3	3
86	Interactive robots for medical applications. , 2002, , 175-180.		3
87	Iliosacral Screw Placement With Ultrasound-Based Navigation versus Conventional Fluoroscopy. Techniques in Orthopaedics, 2003, 18, 184-190.	0.2	3
88	Transrectal ultrasound prostate biopsy tracking with efficient and accurate deformation estimation. , 2009, , .		3
89	Automatic 3D seed location and orientation detection in CT image for prostate brachytherapy. , 2014, , .		3
90	Using rotation for steerable needle detection in 3D color-Doppler ultrasound images. , 2015, 2015, 1544-7.		3

#	Article	IF	Citations
91	Hand-eye calibration of a robot - UltraSound probe system without any 3D localizers. , 2015, 2015, 21-4.		3
92	Initialized Iterative Closest Point for bone recognition in ultrasound volumes. , 2016, , .		3
93	Machine learning and registration for automatic seed localization in 3D US images for prostate brachytherapy. Medical Physics, 2021, 48, 1144-1156.	3.0	3
94	Medical robotics: where we come from, where we are and where we could go. Industrial Robot, 2008, 35, .	2.1	3
95	Multiâ€eXpert fusion: An ensemble learning framework to segment 3D TRUS prostate images. Medical Physics, 2022, 49, 5138-5148.	3.0	3
96	Guest editorial and guide to the issue. IEEE Transactions on Automation Science and Engineering, 2003, 19, 763-764.	2.3	2
97	P6D-1 3D/4D Ultrasound Registration of Bone. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	2
98	Towards realâ€time freeâ€hand biopsy navigation. Medical Physics, 2021, 48, 3904-3915.	3.0	2
99	Output Multimodal Interaction: The Case of Augmented Surgery. , 2007, , 177-192.		2
100	Medical Robotics Workshop â€“ MRWS. Computer Aided Surgery, 2004, 9, 167-171.	1.8	2
101	Design, control and testing of a novel compact laparoscopic endoscope manipulator. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2003, 217, 329-341.	1.0	2
102	Using a Smart Phone for Information Rendering in Computer-Aided Surgery. Lecture Notes in Computer Science, 2011, , 202-209.	1.3	2
103	CASPER, a Computer ASsisted PERicardial puncture system: first clinical results. Computer Aided Surgery, 2005, 10, 15-21.	1.8	2
104	A novel registrationâ€based algorithm for prostate segmentation via the combination of SSM and CNN. Medical Physics, 2022, 49, 5268-5282.	3.0	2
105	Surgical Robots at TIMC: Where We Are and Where We Go. Springer Tracts in Advanced Robotics, 2005, , 145-156.	0.4	1
106	CASPER, a Computer ASsisted PERicardial puncture system: first clinical results. Computer Aided Surgery, 2005, 10, 15-21.	1.8	1
107	Projet RosaceÂ: robot sÃ©curisÃ© dâ€™assistance Ã la chirurgie endoscopique. Irbm, 2010, 31, 122-126.	5.6	1
108	2142 FREE HAND 3D-TRUS PROSTATE BIOPSIES MAPPING. Journal of Urology, 2010, 183, .	0.4	1

#	Article	IF	Citations
109	Prosper: Image and robot-guided prostate brachytherapy. Irbm, 2011, 32, 63-65.	5.6	1
110	Biomechanical breast modelling to improve patient positioning during breast cancer radiotherapy. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 278-279.	1.6	1
111	Living book of anatomy (LBA) project. , 2015, , .		1
112	PROSBOT â€“ Model and image controlled prostatic robot. Irbm, 2015, 36, 118-125.	5.6	1
113	Computer-Aided Hepatic Tumour Ablation. Lecture Notes in Computer Science, 2001, , 1145-1146.	1.3	1
114	Image-free cup navigation inaccuracy: A two-study approach. Computer Aided Surgery, 2007, 12, 176-180.	1.8	1
115	<title>Controlling a robot task using external redundant sensors</title>. , 1994, , .		0
116	Geste MÃ©dico-Chirurgical AssistÃ© Par Ordinateur - Application Ã La VisÃ©e AutomatisÃ©e Du PÃ©dicule VertÃ©bral. Archives of Physiology and Biochemistry, 1995, 103, C123-C123.	2.1	0
117	AID TO PERCUTANEOUS RENAL NEPHROLITHOTOMY (PCNL): COMPUTERIZED FLUORO-ASSISTED REAL TIME ULTRASONIC RENAL PUNCTURE. Journal of Urology, 2008, 179, 589-589.	0.4	0
118	IntÃ©rÃªt du guidage 3D et de la localisation des biopsies de prostate par voie endorectale. ProgrÃ¨s En Urologie - FMC, 2011, 21, F86-F89.	0.1	0
119	Robust rigid registration for non invasive Computer Assisted Orthopedic Surgery. Preliminary results. , 2015, , .		0
120	External validation of a prostate biopsy simulator. Progres En Urologie, 2021, 31, 1115-1122.	0.8	0
121	Education tools for surgery: a simulator for pelvic surgery. , 2002, , 1073-1073.		0
122	La chirurgie augmentÃ©e Ã Grenoble. , 2009, , .	0.1	0