S-4 S-7 S-8 S-9	Pelvic parameters measurement with sterEOS: a preliminary reliability study	- · · · ·						Surgetica
	Extended field-of-view of the knee bone surface using ultrasound Towards a patient-specific simulation of the balloon angioplasty treatment technique	Dorniol Morgane Nasan Maged Al-Helou Bernard	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	8th – 12h 8th – 12h 8th – 12h	Surgetica Surgetica Surgetica
S-10 S-12	Nervous System Exploration Using Tractography To Enhance Pelvic Surgery Transvaginal Uterine Biopsy: Robot Comanipulation Surface imaging for patient positioning in radiotherapy	Muller Cécile Tajeddine Nassim Nazir Souha	Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6h Monday 17th – 10h	Tuesday 1	8th – 12h 8th – 12h 8th – 12h	Surgetica Surgetica Surgetica
S-16 S-18 S-20	Orientability evaluation of concentric tube robots deployed in natural orifices Computer Assisted Early Diabetic Retinopathy Detection from Retinal Fundus Image using Transfer Learning Model Simulation for preoperative planning, balloon inflation for tibial plateau fracture reduction	Peyron Quentin Kumar Basant Aubert Kévin	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	8th – 12h 8th – 12h 8th – 12h	Surgetica Surgetica Surgetica
S-21 S-22	Computer Assisted Detection of Good View Frame from USG Video for ONSD Measurement Patient's specific computer simulations to assist coronary artery bypass surgery	Kumar Basant Drochon Agnes	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	.8th – 12h .8th – 12h	Surgetica Surgetica
S-24 S-25 S-27	CFD based study of blood stagnation caused by LVAD inflow cannula angulation Transesophogeal HIFU cardiac fibrilation therapy guidance by two perpendicular US images Potential of global vision system for learning laparoscopy surgical skills	Ben Abid Amal Dahman Batoul Vijayan Sinara	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	.8th – 12h .8th – 12h .8th – 12h	Surgetica Surgetica Surgetica
S-28 S-31 S-34	Segmenting Surgical Tasks using Temporal Convolutional Neural Network An Experimental Protocol on Attentional Abilities in Classic and Robot-Assisted Laparoscopy Mixed Reality Experiment for Hemodialysis Treatment	Millan Mégane Ferrier-Barbut Eleonore Lohou Christophe	Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6h Monday 17th – 10h	Tuesday 1	8th – 12h 8th – 12h 8th – 12h	Surgetica Surgetica Surgetica
S-36 S-38 S-39	Image-based registration for lung nodule localization during VATS Additive Manufacturing of a Microbiota Sampling Capsule Based on a Bistable Mechanism Towards a novel man-machine interface to speed up training on robot-assisted surgery	Alvarez Pablo Ben Salem Mouna Gil Gustavo	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	.8th – 12h .8th – 12h .8th – 12h	Surgetica Surgetica Surgetica
S-42 S-46	Percutaneous osteoplasty Development of a finite element model of prostate validated by a realistic prostate phantom	Garnon Julien Dieng Mohamed	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	.8th – 12h .8th – 12h	Surgetica Surgetica
S-47 S-48 S-50	FEM-based confidence assessment of non-rigid registration Tumor heterogeneity estimation from DW-MRI and histology data by linking macro- and micro-information in a quantitative way Improved prostate cancer radiotherapy planning with decreased dose in a rectal sub-region highly predictive for toxicity	Baksic Paul Yin Yi Acosta Oscar	Surgetica Surgetica	Monday 17th – 1 Monday 17th – 1 Monday 17th – 1	6hMonday 17th – 10h6hMonday 17th – 10h	Tuesday 1 Tuesday 1	.8th – 12h .8th – 12h .8th – 12h	Surgetica Surgetica Surgetica
S-53 001 002	Experimental test bench for the hemodynamic study of coronary arteries: bifurcation, stent, aneurysm Image quality of low tube voltage on 2nd generation dual-source CT angiography for partial nephrectomy 3D simulation: a phantom study Non-contrast to contrasted abdominal CT volume regression using fully convolutional network	Lagache Manuel K. Ohashi M. Oda	CAR / CARS	Monday 17th – 1 Thursday 20th – Thursday 20th –	10h Wednesday 19th – 7	h Friday 21t		Surgetica CARS 1 CARS 1
003 004 005	Anatomical keypoints localization in 3D CT scans using regression CNN Deep learning-based dual-energy computed tomography imaging 70 kVp CT angiography for preoperative assessment of robot assisted partial nephrectomy (RAPN): comparison with 120 kVp imaging	F. Lalys Y. Chen W. Tani	CAR / CARS	Thursday 20th – Thursday 20th – Thursday 20th –	10h Wednesday 19th – 7	h Friday 21t	h – 17h15	CARS 1 CARS 1 CARS 1
006 007 008	Image noise characteristic of deep learning-based reconstruction image in precision detector computed tomography Artifacts reduction for analyzing postmortem CT images by using deep learning Analysis of colon curvatures in CT colonography images in different patient positions	A. Urikura S. Chai G. Fichtinger	CAR / CARS	Thursday 20th – Thursday 20th – Thursday 20th –	10h Wednesday 19th – 7	h Friday 21t	h – 17h15	CARS 1 CARS 1 CARS 1
009 010 011	Reference misalignment detection and correction for atrial fibrillation catheter ablation Clinical Information Analyzer system to support surgery toward realization of AI surgery Bone suppression for chest X-ray image using a convolutional neural filter	A. J. Stewart K. Kusuda N. Matsubara	CAR / CARS CAR / CARS	Thursday 20th – Thursday 20th – Thursday 20th –	10hWednesday19th – 710hWednesday19th – 7	h Friday 21t h Friday 21t	h – 17h15 h – 17h15	CARS 1 CARS 1 CARS 1
012 013 014	Dynamic contrast-enhanced CT diagnosis of primary liver cancers using transfer learning of pre-trained convolutional neural network Online calibration of a mobile C-arm using inertial sensors A feasibility study in order to achieveCBCT Improving realism in patient-specific abdominal Ultrasound simulation using CycleGANs	A. Yamada I. Lemammer S. Vitale	CAR / CARS CAR / CARS	Thursday 20th – Thursday 20th – Thursday 20th –	10hWednesday 19th – 710hWednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 1 CARS 1 CARS 1 CARS 1
015 016	Deep Learning-based Digital Subtraction Angiography Image Generation Downsampled Cerebral CT Perfusion Image Restoration with CNN	Y. Chen H. Zhu	CAR / CARS CAR / CARS	Thursday 20th – Thursday 20th –	10hWednesday 19th – 710hWednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 1 CARS 1
017 018 019	Markerless pose estimation of a endoscope-compatible fiberprobe for optical biopsy : a feasibility study Mesh Optimization and Centerline Extraction of Vascularture for Endovascular Intervention Simulation 3D Deep Learning approach to predict breast tumor response to chemotherapy using two DCE-MRI volumes	O. Zenteno W. Si M. El Adoui	CAR / CARS	Thursday 20th – Thursday 20th – Friday 21th – 10t	10h Wednesday 19th – 7	h Friday 21t	h – 17h15	CARS 1 CARS 1 CARS 2
020 021 022	Development of automated estimation of disproportionately enlarged subarachnoid space in head CT Fast and automatic liver segmentation for interventional oncology procedures of liver cancer Primary technical efficacy of stereotactic microwave ablation compared to non-navigated conventional MWA for ablation of liver malignancies	N. Takahashi A. Landreau L. Luerken	CAR / CARS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7	h Friday 21t	h – 17h15	CARS 2 CARS 2 CARS 2
023 024 025	Segmentation of glandular area in clinical mammograms using deep learning aimed at volumetric breast density measurement Feasibility of 2D-3D intensity-based rigid registration for liver radioembolization guidance Dose distribution analysis of hybrid intensity-modulated radiation therapy for locally advanced lungcancer	M. Yamamuro H. Hammami Y. Okamoto	CAR / CARS CAR / CARS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2 CARS 2
026 027	Model-based Registration of Deaeration Deformation for in vivo Animal Lungs Ultrasonic image-guided robotic system for nerve block anesthesia	K. Kobayashi S. Chen Y. Okura	CAR / CARS CAR / CARS	Friday 21th – 10 Friday 21th – 10 Friday 21th – 10 Friday 21th – 10	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2 CARS 2 CARS 2
028 029 030	Effects of super resolution processing using deep learning technique for SPECT images First approach to analyse the body fluid status automatically Development of Automatic Assessment Method for Meniscus in Ultrasonography Computerised volumetric breast density measurements based on anatomical knowledge on digitalmammedrams	K. Skerl H. Watanabe	CAR / CARS CAR / CARS	Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2
031 032 033	Computerised volumetric breast density measurements based on anatomical knowledge on digitalmammograms 3D fully convolutional network-based head structure segmentation on multi-modal images fromsparse annotation Intravoxel incoherent motion perfusion magnetic resonance imaging of water molecules in the ratcortex after common carotid artery occlusion at 11.7T	Y. Asai K. Mori S. Fujiwara	CAR / CARS CAR / CARS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h – 17h15 h – 17h15	CARS 2 CARS 2 CARS 2
034 035 036	Semi-automated small intestine segmentation by fully convolutional networks and Hessian analysis Can thin-slice diffusion weighted imaging promise reliable measurement of apparent diffusioncoefficient? : phantom study Preliminary Study on Extraction of Blood Vessels from Fluoroscopic Images Using DeepConvolutional Neural Network	K. Mori T. Yoshida R. Kimura	CAR / CARS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7	h Friday 21t	h — 17h15	CARS 2 CARS 2 CARS 2
037 038 039	Automated Segmentation of Prostate Gland with Superpixel based and Active Contour based Methodology using Diffusion-Weighted MR Imaging Detection of Spinal Ultrasound Landmarks Using Convolutional Neural Networks Segmentation of uterus and uterine fibroids in MR images using convolutional neural networks for HIFU surgery planning	A. Mehndiratta M. Asselin G. Yang	CAR / CARS CAR / CARS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2 CARS 2
040 041 042	Segmentation of aorta dissection CT images using convolution neural networks Measurement of pressure value in mammographic breast compression Segmentation of Hepatic arterial Cone-beam CT Angiography: Comparison of vessels enhancement methods	G. Yang H. Nishide S. Toure	CAR / CARS CAR / CARS	Friday 21th – 10 Friday 21th – 10 Friday 21th – 10 Friday 21th – 10	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2 CARS 2 CARS 2
043 044	Towards Developing a New Diffeomorphism Strategy for Non Rigid Medical Image Registration Design and Clinical Test of a Passive Ultrasound Probe Holder Mechanism for UltrasonographyGuided Arterial Puncturing	S. Dakua BJ. Yi	CAR / CARS CAR / CARS	Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2
045 046 047	Regional-surface-based registration for image-guided neurosurgery: Effects of scan modes onregistration accuracy Analysis and Optimization of the Robot Setup for Robotic-Ultrasound-Guided Radiation Therapy A novel RBF-based predictive tool for facial distraction surgery in growing children with syndromiccraniosynostosis	Y. Dong M. Schlüter F. Angullia	CAR / CARS CAR / CARS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Wednesday 19th – 7 n Wednesday 19th – 7	h Friday 21t h Friday 21t	h — 17h15 h — 17h15	CARS 2 CARS 2 CARS 2
048 049 050	Sucker design improvement of stiffness-adjustable grasping pads for laparoscopic surgeries Improved laparoscopic access guidance for Verres needle procedures by means of proximallyattached audio evaluation Bleeding and Hemostasis Region Extraction using a Support Vector Machine for AutomaticHemostasis Surgery with Abdominal Cavity Irrigation	Y. Nakajima A. Illanes Y. Matsunaga	ISCAS	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30	Friday 21t	h — 17h15	ISCAS 1 ISCAS 1 ISCAS 1
051 052 053	Global patient tracking with trifocal reconstruction in computer-assisted ENT-surgery Endoscopic vs. volumetric OCT imaging of the mastoid bone structure for pose estimation inminimally invasive cochlear implant surgery Integration of intra-operative brain functional positions into the standard brain using SPM	G. Diakov MH. Laves K. Ohshima	ISCAS	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30	Friday 21t	h – 17h15	ISCAS 1 ISCAS 1 ISCAS 1
054 055 056	An automatic unmarked guidewire navigation: application to a remote-controlled vascularinterventional robot system Improvement of Intraoperative plantar pressure measuring system considering physiological loadcondition 3D printed model-based simulation of laparoscopic surgery for cancer of the descending colon withan abdominal aortic aneurysm: A new surgical technique	L. Gu I. Sakuma D. Hojo	ISCAS	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30	Friday 21t	h – 17h15	ISCAS 1 ISCAS 1 ISCAS 1
057 058 059	Impact of a motorised articulated laparoscopic needle holder with ergonomic handle on the gesturesmoothness: a pilot study A Generic Cable-Driven Manipulator for Targeted Transrectal MR-guided Prostate Biopsy:Preliminary Design and Intervention Planning Development of Mechanical 3D Ultrasound Scanning Devices for Image-guided Interventions	A. Dufaug N. Navkar A. Fenster	ISCAS ISCAS	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30 10h Tuesday 18th – 7h30 10h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	ISCAS 1 ISCAS 1 ISCAS 1
060 061	A robotic surgical arm dockable on an endoscope to prevent organ injury during insertion Design of 4-DOFs master device and preliminary test for flexible endoscopic robot surgery	D. H. Lee J. Ahn	ISCAS ISCAS	Thursday 20th – Friday 21th – 10h	10h Tuesday 18th – 7h30 n Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	ISCAS 1 ISCAS 2
062 063 064	Design, Characterization and Optimization of a Soft Fluidic Actuator for Minimally Invasive Surgery Design of a parametric knee implant model based on Active Shape Model output data forindividualized knee implants Augmented reality guidance for zygomatic implant navigation system based on fully-tracked strategy	G. Decroly P. Sembdner X. Chen	ISCAS ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30 n Tuesday 18th – 7h30	Friday 21t	h — 17h15 h — 17h15	ISCAS 2 ISCAS 2 ISCAS 2
065 066 067	Cerebral white matter abnormalities can affect cognitive improvement after carotid endarterectomyin carotid artery steno-occlusive patients Development of brain surgery assistance system that integrate forceps with continuous tumorresection function and tumor cell isolation device Augmented reality-assisted ventricular puncture with marker-based scene registration	J. Yoshida T. Nagame C. Kunz	ISCAS ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30 n Tuesday 18th – 7h30	Friday 21t Friday 21t	h – 17h15	ISCAS 2 ISCAS 2 ISCAS 2
068 069 070	Volume rendering depth mapping for fast vessel identification during intracranial deep electrodeplanning Accuracy Evaluation of a Drill Guidance System for Orthopaedic Surgery Three-Dimensional Displacement after a Medializing Calcaneal Osteotomy in relation to the HindfootAlignment and Osteotomy Angle	A. Higueras-Esteban I. Georgilas A. Burssens	ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30	Friday 21t	h – 17h15	ISCAS 2 ISCAS 2 ISCAS 2
071 072 073	Robust 3D kinematic measurement of femoral component using machine learning Towards a markerless Computer Assisted Orthopaedic Surgery system A targeting system for distal locking of intramedullary nails based on electromagnetic navigation	T. Yamazaki S. Sta X. Chen	ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30	Friday 21t	h – 17h15	ISCAS 2 ISCAS 2 ISCAS 2
074 075 076	Zebra striping and Moiré mapping assessment for hemifacial deformity Printing of contour-adapted bone scaffolds based on calcium phosphate cements Three-dimensional laparoscopic vision improves forceps motion more in the depth direction than inthe horizontal direction	Y. Takeichi S. Holtzhausen Y. Yamazaki	ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30	Friday 21t	h – 17h15	ISCAS 2 ISCAS 2 ISCAS 2
077 078 079	New objective skill assessment system for the laparoscopic intestinal anastomosis model andevaluation of validity Clinical Usability Testing of TTTS Fetal Surgery Planning and Simulation Framework Introducing surgical landscape guidance for intelligent assistance in minimally-invasive surgery	M. Uemura J. Torrents-Barrena J. C. Rosenthal	ISCAS ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30 n Tuesday 18th – 7h30	Friday 21t	h – 17h15 h – 17h15	ISCAS 2 ISCAS 2 ISCAS 2
080 081 082	Acoustic emission integration for ultrasound guidance: a feasibility study for needle based clinicalprocedures Band markers for three-dimensional pose tracking of catheters using single-view fluoroscopy Evaluation of an augmented reality guidance system for laparoscopic liver ablations	A. Illanes D. Lee K. Cleary	ISCAS ISCAS	Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h Friday 21th – 10h	n Tuesday 18th – 7h30 n Tuesday 18th – 7h30	Friday 21t Friday 21t	h – 17h15 h – 17h15	ISCAS 2 ISCAS 2 ISCAS 2 ISCAS 2
083 084	Workflow assessment as a preclinical development tool: surgical process models of threetechniques for minimally invasive cochlear implantation Proposal for self-evolving CAD system that uses CNN	S. Müller K. Abe	ISCAS CAD-AI	Friday 21th – 10h Thursday 20th –	n Tuesday 18th – 7h30 10h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	ISCAS 2 CADAI
085 086 087	Quantification of the diagnosis of depression through application of image recognition technology Heterogeneity of longitudinal brain imaging phenotypes in Alzheimer's disease based onunsupervised clustering of blood marker profiles Subtype classification of triple negative breast cancers by using radiomic feature and miRNA	Y. Maki G. Martí Juan N. Wada	CAD-AI CAD-AI	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30 10h Tuesday 18th – 7h30 10h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	CADAI CADAI CADAI
088 089 090	Automated differential diagnosis of benign and malignant breast lesions on the mammograms Femur fracture classification from X-ray images with Few-shot learning: A preliminary study Towards Automatic Lesion Classification in the Upper Aerodigestive Tract Using OCT and Deep Transfer Learning Methods	A. Kolchev C. Lee M. Schlüter	CAD-AI	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30	Friday 21t	h – 17h15	CADAI CADAI CADAI
091 092 093	Detection of Lung Nodules and Suprahyoid Head and Neck Lesions in High-Resolution CT Scans Discrimination of the invasive of lung adenocarcinoma in computed tomography image using homology method Deep generative model-based unsupervised detection of inappropriate images in a chest X-ray dataset	E. Kapoor K. Nakane T. Nakao	CAD-AI	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30	Friday 21t	h – 17h15	CADAI CADAI CADAI
094 095 096	Improvement of classification performance of pulmonary nodules in CT images using multiple deepconvolutional generative adversarial networks Computer Aided Diagnosis of Cirrhosis and Hepatocellular Carcinoma using Multi-Phase Abdomen CT Improved Method of An Automated Detection of Gastric Cancer using FCN and Feature Based FalsePositive Reduction	Y. Onishi A. Mehndiratta K. Enomoto	CAD-AI	Thursday 20th – Thursday 20th – Thursday 20th –	10h Tuesday 18th – 7h30	Friday 21t	h – 17h15	CADAI CADAI CADAI
097 098 099	Automated malignancy analysis of microscopic lung images using a deep convolutional neuralnetwork and generative adversarial networks Optimization of the BMD measurement procedure in photo-stimulable phosphor (PSP) digitalintraoral imaging systems Computer-aided Patient-specific Plate Design Software for Cranial Reconstruction Surgery	A. Teramoto A. Katsumata S. Park	СМІ	,	10hTuesday 18th – 7h30- 14h45 (interactive session)Tuesday 18th – 7h30- 14h45 (interactive session)Tuesday 18th – 7h30	Friday 21t	h – 17h15	CADAI CMI CMI
100 101 102	Web-based platform of planning and visualization for orthognathic surgery Image quality of cone beam CT under different exposure parameters High-quality 3D modeling and its VR animation of skull and jaw using an algorithm of structure frommotion	S. Y. Woo Z. Zhang Y. Hayakawa	CMI CMI	Wednesday 19th Wednesday 19th	 14h45 (interactive session) 14h45 (interactive session) 14h45 (interactive session) 14h45 (interactive session) Tuesday 18th – 7h30 Tuesday 18th – 7h30 	Friday 21t	h — 17h15 h — 17h15	CMI CMI CMI
103 104	Automatic Three-Dimensional Cephalometric Annotation System Using Three-Dimensional Convolutional Neural Networks Clinical accuracy of computer guided osteotomy stents in titanium screws drilling in mandibular fractures	 Y. Hayakawa S. H. Kang H. Abou Elwafa J. Pascau 	CMI CMI	Wednesday 19th Wednesday 19th	 – 14h45 (interactive session) – 14h45 (interactive session) – 14h45 (interactive session) Tuesday 18th – 7h30 	Friday 21t Friday 21t	h — 17h15 h — 17h15	CMI CMI CMI CMI
105 106 107	Non-invasive computer-assisted dental implant surgery based on optical tracking and 3D printing Modified Point- and Surface-based Registration and their Accuracy Evaluation Methods for ComputerAssisted Maxillofacial Surgical System Periodontitis detection and classification in panoramic radiographs using Deep Convolutional NeuralNetwork (DCNN)	S. J. Lee T. H. Yong	CMI CMI	Wednesday 19th Wednesday 19th	 14h45 (interactive session) 14h45 (interactive session) 14h45 (interactive session) 14h45 (interactive session) Tuesday 18th - 7h30 Tuesday 18th - 7h30 Tuesday 18th - 7h30 	Friday 21t Friday 21t	h — 17h15 h — 17h15	CMI CMI
-1 -2 -3	Towards Intraoperative Use of Ambient Mass Spectrometry Imaging for Cardiac Tissue Learning Needle Tip Localization from Digital Subtraction in 2D Ultrasound Catheter Localization in 3D Ultrasound Using Voxel-of-Interest-based ConvNets for Cardiac Intervention	R. Ellis C. Mwikirize H. Yang	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	LOh Tuesday 18th – 7h30 LOh Tuesday 18th – 7h30	Friday 21t	h — 17h15 h — 17h15	IPCAI1 IPCAI1 IPCAI1
-4 -5 -6	Uncertainty-aware Performance Assessment of Optical Imaging Modalities with Invertible Neural Networks Implicit Domain Adaptation with Conditional Generative Adversarial Networks for Depth Prediction in Endoscopy Estimation of Tissue Oxygen Saturation based on Image to Image Translation	T. Adler A. Rau Q. Li	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	LOh Tuesday 18th – 7h30 LOh Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI1 IPCAI1 IPCAI1
SS-1 SS-2 SS-3	Flexible and Comprehensive Patient-Specific Mitral Valve Silicone Models with Chordae Tendinae Made From 3D-Printable Molds Towards an Automatic Preoperative Pipeline for Image-Guided Temporal Bone Surgery Dynamic, Patient-Specific Mitral Valve Modelling for Percutaneous Valve Repair Planning	S. Engelhardt J. Fauser O. Ginty	IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	LOh Tuesday 18th – 7h30	Friday 21t	h — 17h15	IPCAI1 IPCAI1 IPCAI1
SS-4 SS-5 TN-1	Automatic Biplane Left Ventricular Ejection Fraction Estimation with Mobile Point-of-care Ultrasound Using Multi-task Learning and Adversarial Training Prediction of Laparoscopic Procedure Duration Using Unlabeled, Multimodal Sensor Data Limits of Electromagnetic Tracking for High Precision Interventions	M. Jafari S. Bodenstedt D. Kügler	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	LOh Tuesday 18th – 7h30 LOh Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI1 IPCAI1 IPCAI2
TN-2 TN-3 TN-4	Flexible Needle and Patient Tracking using Fractional Scanning for Reduced Dose in Interventional CT Procedures Deformable Multi-Modal Registration for Navigation in Beating-Heart Cardiac Surgery Immersive Virtual Reality Environment for Medicine	G. Medan J. Peoples L. Groves	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI2 IPCAI2 IPCAI2 IPCAI2
TN-4 TN-5 TN-6 AU-1	Learning Soft-Tissue Behavior of Organs for Surgical Navigation with Convolutional Neural Networks On the Feasibility of 3D/4D Ultrasound Transperineal Image-Guidance for Robotic Radical Prostatectomy Interactive Flying Frustums (IFFs): Spatially-Aware Surgical Data Visualization	M. Pfeiffer P. Mathur J. Fotouhi	IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI2
AU-2 AU-3	Pedicle Screw Navigation using Surface Registration on the Microsoft HoloLens Automatic tissue classification in textured models: A novel approach to intraoperative integration of structured light scanning	F. Liebmann B. Chan	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI2 IPCAI2
AU-4 AU-5 AU-6	A Novel Gaze-supported Multimodel Human Computer Interaction for Ultrasound Machines Deep Neural Maps for Unsupervised Visualization of High Grade Cancer in Prostate Biopsies A "Pick-Up" Stereoscopic Camera with Visual-Motor Aligned Control for the da Vinci Surgical System: A Preliminary Study	H. Zhu A. Sedghi A. Avinash	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI2 IPCAI2 IPCAI2
SDS-1 SDS-2 SDS-3	Weakly Supervised Method for Spatio-Temporal Tool Tracking in Laparoscopic Videos Teacher/Student Approach for Semi-Supervised Surgical Phase Recognition Objective Assessment of Intraoperative Technical Skill in Capsulorhexis with Temporal Neural Networks	C. Nwoye T. Yu T.S. Kim	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI2 IPCAI2 IPCAI2
SDS-4 SDS-5 SDS-6	Visual Domain Adaptation with Self-Training for Face Detection in the Operating Room Active Learning using Deep Bayesian Networks for Surgical Workflow Analysis Video-based Surgical Skill Assessment using Deep Neural Networks	T. Issenhuth S. Bodenstedt I. Funke		Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30	Friday 21t	h – 17h15	IPCAI2 IPCAI2 IPCAI2
RV-1 RV-2 RV-3	Design Optimization of A Contact-Aided Continuum Robot for Endobronchial Interventions Based on Anatomical Constraints Preliminary Study of An RNN Based Active Interventional Robotic System (AIRS) in Retinal Microsurgery Leveraging RSF and PET Images for Prognosis of Multiple Myeloma at Diagnosis	L. Ros Freixedes C. He L. Morvan	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI2 IPCAI2 IPCAI2
RV-4 RV-5 LA-1	An In-vivo Porcine Dataset and Evaluation Methodologyto Measure Soft-Body Laparoscopic Liver Registration Accuracy with an Extended Algorithm that Handles Collisions Fully Auto Automatic Self-gated 4D-MRI Construction from Free-breathing 2D Acquisitions Applied on Liver Images Localizing Dexterous Surgical Tools in X-ray for Image-based Navigation	R. Modrzejewski L. VazquezRomaguera C. Gao	IPCAI IPCAI	Tuesday 18th – 1 Tuesday 18th – 1 Tuesday 18th – 1 Wednesday 19th	L3h Tuesday 18th – 7h30 L3h Tuesday 18th – 7h30	Friday 21t Friday 21t	h – 17h15 h – 17h15	IPCAI2 IPCAI2 IPCAI2 IPCAI3
LA-1 LA-2 LA-3 LA-4	Evaluation of Head Segmentation Quality for Treatment Planning of Tumor Treating Fields in Brain Tumors Psychophysiological Data and Computer Vision to Assess Cognitive Load and Team Dynamics in Cardiac Surgery	R. Shamir R.D. Dias G. Wheeler	IPCAI IPCAI	Wednesday 19th Wednesday 19th Wednesday 19th Wednesday 19th	- 10h Tuesday 18th - 7h30 - 10h Tuesday 18th - 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI3 IPCAI3 IPCAI3 IPCAI3
LA-5 LA-6	Unity and VTK for VR Medical Image Analysis – an Initial Clinical Evaluation EM Navigation of a Raman Spectroscopy Needle for Prostate Cancer Confirmation: Preliminary ex-vivo Study in 3D Slicer Combining Visual Cues and Interactions for 3D-2D Registration in Liver Laparoscopy	R. Shams Y.E. Lopez	IPCAI IPCAI	Wednesday 19th Wednesday 19th	- 10h Tuesday 18th - 7h30 - 10h Tuesday 18th - 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI3 IPCAI3
LA-9	Novel Instrument Design for Electromagnetic Navigation Bronchoscopy OP 4.1: A User-Centered Platform for the Operation Room of the Future EchoBot: An Open-Source Robotic Ultrasound System	H. Jaeger K. März A. Østvik	IPCAI IPCAI	Wednesday 19th Wednesday 19th Wednesday 19th	- 10h Tuesday 18th - 7h30 - 10h Tuesday 18th - 7h30	Friday 21t Friday 21t	h — 17h15 h — 17h15	IPCAI3 IPCAI3 IPCAI3
LA-10	3D Ultrasound Image Guidance System for Focal Liver Tumor Therapies Miniature C-arm Simulator Using Wireless Accelerometer Based Tracking	D. Gillies D. Allen		Wednesday 19th Wednesday 19th				IPCAI3 IPCAI3

NOTE: All IPCAI poster authors have three additional posters sessions, on a voluntary basis (Tuesday 18th – 15h30 ; Wednesday 19th – 12h30 ; Wednesday 19th – 15h30). NOTE2: All IPCAI posters can also be setup on Monday 17th at 10h.