POSTER PRESENTATION SESSIONS

Thursday 17th

Abstract ID	Presenting Author		Poster Pitches 1	Start 10:00	Finish 11:00
-			**Guest Speaker:** Prof. Hongliang Ren	10:00	10:20
6	Lloyd	Peter	A Concentric Tube Catheter, Actuated and Imaged via MRI	10:20	10:22
112	Diaz-Hernandez	Maria Monserrat	Characterization of Robotic Needle Insertion for Automatic Biopsy Sampling of Dynamic Multilayer Polymeric Lung Phantoms	10:22	10:24
16	Yeh	Keng-Hua	Teleoperation of a Six-DOF Parallel Manipulator for Spinal Decompression Surgery - Evaluation via Eggshell Grinding Experiments	10:24	10:26
29	Tian	Sizhe	Compliance-Based Sensor Placement for Force Sensing on a Sensorized Prostate Phantom	10:26	10:28
32	Reina	Mattia	Optimization-based compliance control for surgical continuum robots	10:28	10:30
34	Li	Xinxin	A Novel 2-DOF Continuous Hydraulic Motor for MR Intervention Robotics	10:30	10:32
37	Nisky	Ilana	Elastic Loop Transfer Task: Bimanual Manipulation of Elastic Objects in Robot-Assisted Surgery	10:32	10:34
38	Martin Rodriguez	Ruben	A soft endoscopic robot for minimally invasive in situ bioprinting	10:34	10:36
40	Jakobi	Jonas	AR Visualization of Workspace Overlap for Collision Prevention in Robot-Assisted Surgery with Hugo™ RAS	10:36	10:38
43	Liu	Xinran	A Physics-Informed Neural Network for FBG-Based Force Vector and Location Identification along a Flexible Catheter	10:38	10:40
47	Ma	Zhihao	Optimising Prostate Cancer Diagnosis with AI-Assisted Surface-Based Ultrasound-Derived Prostate-Specific Antigen Density	10:40	10:42
50	Guo	Xiangyu	Markerless Real-Time Target Tracking and Pose Estimation for Robot-Assisted Terahertz Imaging of Human Skin	10:42	10:44
59	Cabellero Jorna	Daniel	Applying AI techniques to EMG sensor data to predict localized muscle fatigue in RAS training: Standing and sitting postural approach	10:44	10:46
18	Shabanianalavi	Daniel	A Transparent Simulation-Centered Co-Robotic Platform for Human-Supervised Spinal Surgery	10:46	10:48
33	Callera	Arianna	Development of a Pancreatic Phantom for Surgical Training	10:48	10:50
39	Leonov	Roman	Intuitive Robot-Assisted Drilling with Haptic Feedback and Multi-Layer Safety Constraints	10:50	10:52
57	Casals	Alicia	Kinematic considerations in laparoscopic surgical robots. Impact on usability	10:52	10:54
78	Wei	Qiyu	Physics-Guided Residual Modeling for Transient Prediction in Pneumatic Soft Continuum Robots	10:54	10:56
81	May	Yael L.	Quantitative Magnetic Centralisation for Millirobot MRI Localisation	10:56	10:58
99	Rosa	Benoit	2 Step Constraint Resolution With Regularization For Robotic Endoscopes With Environment Contacts	10:58	11:00
110	Dimitriadis	Alexandros	Deep Learning 3D Surgical Tool Pose Estimation using Geometry-Aware Correction	11:00	11:02
27	Artinian	Azad	Exploiting Kinematic Redundancy for Active Stiffness Modulation of Continuum Concentric Push-Pull Robots	11:02	11:04
54	Gamberini	Giulia	A SOFA-Based Virtual Reality Simulator for Vascular Procedures Integrated with the da Vinci Research Kit	11:04	11:06

Friday 18th

Abstract ID	Presenting Author		Poster Pitches 2	Start 10:10	Finish 11:00
52	Davy	Joshua	Magnetic Actuation of Vine Robots for Tortuous Surgical Navigations	10:10	10:12
53	Gamberini	Giulia	Multi-fidelity model for thermal lesion prediction in robotic Ultrasound-Guided High-Intensity Focused Ultrasound surgery	10:12	10:14
74	Roberti	Andrea	Vision-Based Surgical Skill Assessment for Ring Transfer Tasks Using YOLO Segmentation	10:14	10:16
56	Sánchez-Margallo	Juan A.	Advanced 5G Standalone Infrastructure for Remote Surgical Robotics: Design and Validation of the OSLO Platform	10:16	10:18
58	Cabellero Jorna	Daniel	Evaluating localized muscle fatigue during suturing tasks in MIS surgical training	10:18	10:20
79	Wei	Qiyu	Preliminary Characterisation of Angular Overshoot and Oscillation in a Pneumatic Soft Continuum Robot	10:20	10:22
61	Anchal	Sahil	A Low-Power Multi-Sensor Navigation Architecture for Spatial Mapping of Endoscopic Capsules	10:22	10:24
62	Waterston	Manisha	Constraint Programming for Robotic Arm–Assisted Delivery of Ultrasound-Guided High-Intensity Focused Ultrasound (USgHIFU)	10:24	10:26
63	Piccinelli	Nicola	Dense Estimation of Retinal Tectonics via Radial Basis Function Interpolation	10:26	10:28
64	Jones	Dominic	A Multimodal Laparoscopic Training Dataset for Automated Surgical Skill Assessment in Low-Resource Settings	10:28	10:30
31	Loureiro da Rocha	Manuel Maria	Benchmarking object detectors for naso-endoscopic anatomical features	10:30	10:32
83	Greenidge	Nikita	A Pre-Experimental Scan-Planning Simulator for Hexapod-Mounted On-Chip Terahertz Sensing	10:32	10:34
87	Li	Ruixuan	Trackerless Freehand Ultrasound 3D Reconstruction in Orthopedic Surgery	10:34	10:36
88	Cheng	Zhuoqi	Electrical Bio-Impedance Sensing on 2-Layered Tissue Model	10:36	10:38
91	Zhang	Yao	Feasibility of Machine Learning-Based Tissue Discrimination Using Electrical Bioimpedance Sensing	10:38	10:40
93	Toilos	Christos	Evaluating Kinematic Tracking Stability and Load-Dependent Error in the da Vinci Research Kit (dVRK)	10:40	10:42
94	Qi	Yuxuan	Pneumatically Actuated MRI-Compatible Robot for Spinal Needle Procedures	10:42	10:44
96	Van den Bogaert	Marthe	Vibroacoustic-Based Bone Density Differentiation During Robotic Drilling	10:44	10:46
103	Wu	Di	Design of a Surgical Gripper with Tunable Constant Gripping Force for Safe Tissue Handling	10:46	10:48
104	Finocchiaro	Martina	An Open-Source Environment for Autonomous Robotic Colonoscopy Navigation	10:48	10:50
80	Ma	Zhihao	Intracardiac Soft Robotic Design for CPR Application	10:50	10:52
19	Ji	Tianchen	A Re-positionable and Axially Re-orientable Pivot-Joint Steering Mechanism for Tip-Everting Soft Growing Robots	10:52	10:54