## ORAL PRESENTATION SESSIONS

### Wednesday 16th

| Abstract ID | Presenting Author | | Oral Presentations - 1 (Imaging & Visualisation) | Start 15:00 | Finish 16:00 |
|---|---|---|---|---|---|
| 35 | Di Filippo | Gaia | Advanced Anatomical Site Identification in Laryngoscopy: A Prototypical Contrastive Learning Approach for Quality Control | 15:00 | 15:10 |
| 21 | Shilon | Lior | Online Guidewire Tracking in B-mode Ultrasound: A Kinematic-Gated U-Net Pipeline for Endovascular Robotic Guidance | 15:10 | 15:20 |
| 69 | Jensen | Nicolai | A Synchronized Multimodal Data Collection Framework for AI-Based Autonomous Echocardiography | 15:20 | 15:30 |
| 73 | Roberti | Andrea | EndoWrist Joint Configuration Estimation from Monocular Video via Depth Reconstruction and URDF Alignment | 15:30 | 15:40 |
| 84 | Bernardini | Chiara | Optimizing Path Planning for Enhanced Robotic Ultrasound 3D Reconstruction | 15:40 | 15:50 |
| 109 | Calmé | Benjamin | Autonomous Endoscopic Navigation Based on Real-Time Lumen Segmentation | 15:50 | 16:00 |

| Abstract ID | Presenting Author | | Oral Presentations - 2 (Surgical Robots & Autonomy) | Start 17:30 | Finish 18:30 |
|---|---|---|---|---|---|
| 13 | De Mattos | Leonardo | Remote Center of Motion Evaluation of a Compliant Joint for Neuroendoscopy | 17:30 | 17:40 |
| 44 | Massin | Joseph | Computationally efficient workspace boundary determination for two-segment continuum robots | 17:40 | 17:50 |
| 85 | Iyama | Yuriko | Deformation-Aware Autonomous Circular Cutting in Robot-Assisted Surgery Using MFT-Based Tracking and Online Scissor Pose Planning | 17:50 | 18:00 |
| 95 | Davoodi | Ayoob | Delay Compensation for Micro-Macro Bilateral Teleoperation in Robot-Assisted Transoral Laser Microsurgery | 18:00 | 18:10 |
| 108 | Dawood | Abu Bakar | Inverse Design Framework for Tissue-Mimicking Phantoms: Applications in Computer and Robot-Assisted Surgery | 18:10 | 18:20 |

### Thursday 17th

| Abstract ID | Presenting Author | | Oral Presentations - 3 (Human Factors & Surgical Performance) | Start 09:00 | Finish 10:00 |
|---|---|---|---|---|---|
| 11 | Akpo | Eugenia Mawuenya | Bimanual Structure in Surgical Preparation | 09:00 | 09:10 |
| 23 | Galvan | Giulia | Evaluation of Foundation Models for predicting visual outcomes after Epiretinal Membrane Surgery | 09:10 | 09:20 |
| 24 | Cattafesta | Deborah | Vision-Based Hand-Motion Analysis for Ergonomic Assessment in Emulated Robot-Assisted Partial Nephrectomy | 09:20 | 09:30 |
| 49 | Osman | Ali | Towards Sensor-Free Surgical Skill Assessment Using Video-Based Multimodal Learning | 09:30 | 09:40 |
| 89 | Cheng | Zhuoqi | Real-Time AI Generative Feedback for full-lung bronchoscopy instruction | 09:40 | 09:50 |
| 92 | Damiano | Rossella | Real-Time Instance Segmentation in the Operating Room with Selective Refinement of Rare Surgical Instruments | 09:50 | 10:00 |

| Abstract ID | Presenting Author | | Oral Presentations - 4 (Sensing & Control 1) | Start 15:30 | Finish 16:30 |
|---|---|---|---|---|---|
| 17 | Lu | Chuang | GelFlip: A Flip-Open Visual-Tactile Palpation Probe for Dual-Mode Sensing in Minimally Invasive Surgery | 15:30 | 15:40 |
| 55 | Tombini | Ingrid | Human-Robot Shared Control for Markerless Pedicle Subtraction Osteotomy Procedure | 15:40 | 15:50 |
| 12 | Falagario | Chiara | Electrical Impedance Tomography in Constrained Endoscopy Applications | 15:50 | 16:00 |
| 26 | Galvan | Giulia | Deep Learning-Based contact detection for Robot-Assisted retinal surgery using microscope and OCT imaging | 16:00 | 16:10 |
| 28 | Tian | Huanyu | Weakly Supervised Depth Estimation and Control of a Micropipette | 16:10 | 16:20 |
| 65 | DeLorey | Charles | A Tactile Sensing Array for Force Quantification in Robot Assisted Surgery | 16:20 | 16:30 |

## Thursday 17th (Continued)

| Abstract ID | Presenting Author | | Oral Presentations - 5 (Magnetics) | Start 17:00 | Finish 18:30 |
|---|---|---|---|---|---|
| 45 | Panizzolo | Riccardo | An electromagnetic catheter for on-demand release and in-situ manipulation of magnetic therapeutic cargoes | 17:00 | 17:10 |
| 41 | Frieler | Simon | Selectively Triggerable Biopsy Capsule via Multi-stage Magnetic Torsion Springs | 17:10 | 17:20 |
| 42 | Romanello | Vito | Volumetric Magnetic Model and Polar-Coordinate Inverse Solver for Model-Based Control of a Magnetically Actuated Capsule Robot | 17:20 | 17:30 |
| 82 | Chandler | James | Endoscopic Deployment of Magnetic Soft Continuum Robots for Targeted Gastrointestinal Therapy | 17:30 | 17:40 |
| 46 | Sahin | Ismail | Forward-Model-Based Anomaly Detection for Magnetic Localization Systems | 17:40 | 17:50 |
| 76 | Khalid | Muhammad Abdullah | Magnetic–Fluidic Soft Robotic Catheter Tip for Enhanced Access in Superior Mesenteric Artery Aneurysm Intervention | 17:50 | 18:00 |
| 60 | Bernabei | Matteo | A deployable, magnetically driven soft robotic platform for laparoscopic surgery: modeling, design and preliminary validation works | 18:00 | 18:10 |
| 68 | Sahin | Ismail | AI Generated Synthetic Data for Accelerating the Development of Data-Driven Magnetic Localization Models | 18:10 | 18:20 |
| 97 | Brown | Alexander | Bi-directional Magnetic Vine Robot for Enhanced Endoscopic Navigation | 18:20 | 18:30 |

## Friday 18th

| Abstract ID | Presenting Author | | Oral Presentations - 6 (Novel Devices) | Start 09:00 | Finish 10:10 |
|---|---|---|---|---|---|
| 101 | Greenidge | Nikita | A Low-Cost Smartphone-Based Diabetic Retinopathy Screening System Integrating AI Classification for Resource-Limited Settings | 09:00 | 09:10 |
| 70 | Burak | Ozdemir | Reconfigurable Magnetic Catheter Delivery with a Pressure-Lockable Hybrid Continuum Robot | 09:10 | 09:20 |
| 22 | Dreyer | Juliana | A Miniaturized Everting Robot with a Large Working Channel for Ureteroscopy Using Twisted Tail Pushing | 09:20 | 09:30 |
| 48 | Yanez Trujillo | Andrea Libertad | Towards Miniature Soft Vine Robots for Ultrasound Imaging of the Uterine Cervix | 09:30 | 09:40 |
| 75 | Suulker | Cem | Improved Passive Navigation in Soft Growing Eversion Robots Through Embodied Intelligence via Constrictive Bands | 09:40 | 09:50 |
| 86 | Dean | Thomas | Origami Polyimide Sleeves for Protection of Variable Length Soft Endoscopic Actuators | 09:50 | 10:00 |
| 98 | Brown | Alexander | Towards Automated Fabrication of Soft Robotic Endoscope Tips for Affordable Gastroscopy | 10:00 | 10:10 |

| Abstract ID | Presenting Author | | Oral Presentations - 7 (Sensing & Control 2) | Start 16:00 | Finish 17:00 |
|---|---|---|---|---|---|
| 107 | Williams | Jackson | Towards a Sensorised Balloon for Lumen and Polyp Detection using Electrical Impedance Tomography | 16:00 | 16:10 |
| 102 | Lopes | Maria | Proximal Sensing of Instrument Rotation in Endovascular Procedures | 16:10 | 16:20 |
| 105 | Wachtel | Lukas | Towards Combined Diffuse Reflectance and Electrical Impedance Spectroscopy for Colorectal Tissue Characterisation | 16:20 | 16:30 |
| 72 | Pogacnik | Zeno | Experimental Characterization of NURD in OCT Catheters Under Curvature and Rotational Speed Variations | 16:30 | 16:40 |
| 67 | Ulrich | Ambroise | Shape control of a concentric tube continuum robot for surface ECoG brain implant insertion in a highly constrained environment | 16:40 | 16:50 |
| 66 | Jackson | Ben | Magnetic Force Sensing in Ophthalmic Surgical Robot Forceps: Design, Integration, and Validation | 16:50 | 17:00 |