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#### Tentative Program

**8:00**      **Registration, Speaker Check-in and Poster Setup**

**8:15**      **Welcome & Opening Remarks**

Chair: Cristian A. Linte

**8:20**      **Keynote Address: Dr. Guang-Zhong Yang, Imperial College London**

Chair: Cristian A. Linte

**9:10**      **Oral Session I (2 papers + Discussion): Endoscopic Imaging & Applications**

Chair: Purang Abolmaesumi

# 1 Visual Odometry in Stereo Endoscopy by using PEaRL to handle Partial Scene Deformation

# 2 A Simple and Accurate Camera-sensor Calibration for Surgical Endoscopes and Microscopes

**10:00**      **Coffee Break**

**10:30**      **Oral Session II (3 papers + Discussion): Applications in Augmented Reality**

Chair: Pascal Fallavollita

# 1 Augmented Reality in Neurovascular Surgery: First Experiences

# 2 Augmented-reality environment for locomotor training in children with neurological injuries

# 3 Augmented Reality-Enhanced Endoscopic Images for Annuloplasty Ring Sizing

**11:50**      **Poster teasers**

**12:00**      **Lunch**

**13:00**      **Keynote Address: Dr. Craig Peters, Children's National Health System**

Chair: Ziv Yaniv

**13:50**      **Poster Session**

# 1 Graphics Processor Unit (GPU) Accelerated Shallow Transparent Layer Detection in Optical Coherence Tomographic (OCT) images for real-time Corneal Surgical Guidance

# 2 Simulation of Ultrasound Images for Validation of MR to Ultrasound Registration in Neurosurgery

# 3 Fusion of Inertial Sensing to Compensate for Partial Occlusions in Optical Tracking Systems

# 4 Improvement of a Virtual Pivot for Minimally Invasive Surgery Simulators using Haptic Augmentation

# 5 A New Cost-Effective Approach to Pedicular Screw Placement

# 6 Linear Object Registration of Interventional Tools

# 7 A Framework for Semi-Automatic Fiducial Localization in Volumetric Images

**15:00**      **Coffee Break**

**15:30**      **Oral Session III (3 papers + Discussion): Ultrasound Imaging and Guidance Applications**

Chair: David R. Holmes III

# 1 Instrument Tracking and Visualization for Ultrasound Catheter Guided Procedures

# 2 Towards video guidance for ultrasound, using a prior high-resolution 3D surface map of the external anatomy

# 3 Ultrasound Image Overlay onto Endoscopic Image by Fusing 2D-3D Tracking of Laparoscopic Ultrasound Probe

**16:50**      **Awards & Closing Remarks**

Chair: Ziv Yaniv