



The Joint MICCAI-Workshops on Computing and
Visualization for Intravascular Imaging and Computer
Assisted Stenting (CVII-STENT) 2014

Sunday 14 September 2014

Stata Center, Building 32, Room 144, MIT Campus

MICCAI 2014 BOSTON

Program

0700 Coffee and Registration

0815 Welcome

0820 **Oral Session: Visualisation and Enhancement**

Chairs: Su-Lin Lee and Simone Balocco

Volume Constraint Denoising of Digital Subtraction Angiography Sequences

Richard Brosig*¹; Markus Kowarschik², Nassir Navab¹, Maximilian Baust¹

¹Technical University Munich, Germany

²Siemens Healthcare, Germany

Blob enhancement filter for computer-aided diagnosis of cerebral aneurysms

Tim Jerman*, Žiga Špiclin, Boštjan Likar, Franjo Pernuš

University of Ljubljana, Slovenia

X-ray depth maps - Towards improved interventional visualization and beyond

Wang Xiang^{1,2}, Christian Schulte zu Berge¹, Pascal Fallavollita¹, Nassir Navab¹, Stefanie Demirci^{1*}

¹Technical University Munich, Germany

²Beihang University, China

0920 **Oral Session: Intravascular Imaging Part I**

Chairs: Amin Katouzian and Maria A. Zuluaga

Quantitative comparison of plaque in coronary culprit and non-culprit vessel segments using intravascular ultrasound

Zhi Chen*¹, Andreas Wahl¹, Richard Downe¹, Shanhui Sun¹, Tomas Kovarnik², John Lopez³, Milan Sonka¹

¹University of Iowa, US

²Charles University, Prague, Czech Republic

³Loyola University Stritch School of Medicine, US

Fully automated detection of healthy wall sections in intracoronary optical coherence tomography

Guillaume Zahnd*, Antonios Karanasos, Gijs van Soest, Evelyn Regar, Wiro Niessen, Frank Gijssen, Theo van Walsum
Erasmus MC, Rotterdam, The Netherlands

1000 Coffee Break

1030 **Oral Session: Intravascular Imaging Part II (Cont'd)**

Side-branch guided registration of intravascular ultrasound pullbacks in coronary arteries

Ling Zhang*¹, Richard Downe¹, Zhi Chen¹, Shanhui Sun¹, Andreas Wahle¹, Tatiana Masiarova¹, Tomas Kovarnik¹, John Lopez², Milan Sonka¹
¹University of Iowa, US
²Loyola University Stritch School of Medicine, US

1050 **Invited Speaker**

Prof Adel Malek, MD, PhD
Chief, Division of Neurovascular Surgery
Tufts University School of Medicine

1200 Lunch

1300 **Invited Speakers**

Amin Katouzian, PhD
CEO i2Sense

1400 **Oral Session: Vascular Analysis**

Chairs: Geir Arne Tangen and Markus Kowarschik

Using spatiotemporal patterns of the arterial wall to assist treatment selection for carotid atherosclerosis

Aimilia Gastouniotti*, Marinos Prevenios, Konstantina Nikita
National Technical University of Athens, Greece

Towards blood flow quantification using dense flow volumes

Peter Maday*¹, Markus Kowarschik², Nassir Navab¹, Stefanie Demirci¹
¹Technical University Munich, Germany
²Siemens Healthcare, Germany

Higher order tensor-based segmentation and n-furcation modeling of vascular structures

Suheyla Cetin*, Gözde Ünal
Sabanci University, Turkey

1500 Coffee Break

- 1530 **Panel Discussion**
Chairs: Stefanie Demirci and Gozde Unal
- 1650 Concluding Remarks and Best Paper Award
- 1700 Close