

# 7<sup>th</sup> Joint MICCAI Workshop on Computing and Visualization for Intravascular Imaging and Computer Assisted Stenting (MICCAI CVII-STENT)

Garnada, Spain

## Call for Papers

Once again, the two much successful MICCAI-Workshop series (CVII and STENT) on technological and scientific research concerned with endovascular procedures are united into a single workshop at MICCAI 2018. A continuous communication between surgeons/physicians, scientific and industrial researchers is crucial for bringing forward innovative solutions to the clinics: we aim to provide an interchange platform for medical experts and technological researchers concerned with all aspects of endovascular interventions.

The workshop will focus on technological advances in imaging, treatment, and computer-assisted operations for diagnostic and intraoperative imaging. Such techniques offer increasingly useful information regarding vascular anatomy and function and are poised to have dramatic impact on the diagnosis, analysis, modeling, and treatment of vascular diseases. This year we are pleased to announce talks by:

- PDDr.-Ing. Markus Kowarschik, Siemens Healthcare, Munich, Germany

with further speakers to be confirmed.



### Important Dates:

#### Intention for submission

Monday 4 June 2018

#### 8 page paper submission

Monday 11 June 2018

#### Author notification

Friday 6 July 2018

#### Camera-ready submission

Monday 16 July 2018

#### Workshop

Sunday 16 Sept. 2018

**MICCAI2018**  
*Granada*  
SPAIN

**Paper submissions** are welcome on all topics related to intravascular imaging and computer assisted stenting. **Topics include but are not limited to:**

## CVII

- Atherosclerotic plaque image analysis and characterization
- Quantification of vascular morphology and function
- Tissue classification of intravascular images
- Computer-aided diagnosis of vascular disease
- Segmentation and anatomic modeling from IVUS, OCT, CTA, X-ray angiography, IVMR, ...
- Image-based biomechanical models of vascular anatomy and function
- Registration of intravascular images
- Image processing methods for intravascular contrast agent applications
- Hemodynamic image-based modeling
- Percutaneous imaging/intervention, including IVUS, OCT and IVMR.

## STENT

- Imaging for struts/stent detection, reconstruction, and assessment
- Computer-aided interventions for stenting procedures
- Detection and visualization of fluid dynamic changes induced by stents
- Computer-aided diagnosis of post-deployment diseases
- Planning and navigation of vascular treatments
- Segmentation, registration and anatomic modeling of vascular images
- Image-based biomechanical and hemodynamic models of stents, vascular anatomy, and function
- Analysis and improvement of stent design
- Virtual stenting and virtual deployment
- Monitoring and follow-up for stent implants

**We are also welcoming Machine learning-related approaches in interventional imaging**

### Notes:

**Papers should follow the MICCAI submission format ([here](#)), and submit your paper ([here](#))**

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### Organizational Chairs

Su-Lin Lee, Imperial College London, UK  
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Stefanie Demirci, Technical University of Munich, Germany  
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**For more information, visit our page at**  
<http://campar.in.tum.de/CVIISTENT2018/WebHome>