



Joint Workshop on

## New Technologies for Computer/Robot Assisted Surgery 11-13 July 2011, Graz, Austria

*A multi-disciplinary workshop aimed at checking the state-of-the-art in, and advancing the field of, minimally-invasive surgical procedures for the treatment of cardiovascular disease.*

The field of robotic and computer-assisted surgery has never been more productive. More and more universities, institutes and companies are gathering specific knowledge in consortia, and this type of cooperation generates high-quality research outcomes and innovative technical solutions. Thus, the SCATH Project Coordination Board has decided to organize a joint workshop with the aim of:

- Presenting the research conducted at European level in technologies to assist and plan surgery,
- Provide training to early stage and advanced stage researchers,
- Sharing new visions and perspectives in the research fields related to computer/robot assisted surgery.

### Workshop Overview:

	11 <sup>th</sup> July 2011	12 <sup>th</sup> July 2011	13 <sup>th</sup> July 2011
<b>Day's topic</b>	Modeling in surgery	Navigation in surgery	Robotics in surgery
<b>Keynote lecture</b>	Jos Vander Sloten	Ciancarlo Ferrigno	Paolo Fiorini
<b>Morning session</b> (session chairs indicated by *)	<b>*Borja Rodriguez Vila</b> <ul style="list-style-type: none"> <li>•Algorithms for segmentation</li> <li>•Geometrical modeling</li> <li>•Biomechanical modeling               <ul style="list-style-type: none"> <li>- Experimental</li> <li>- Computational</li> </ul> </li> </ul>	<b>*Elena De Momi</b> <ul style="list-style-type: none"> <li>•Cardiovascular navigation</li> <li>•Neurosurgical navigation</li> <li>•Laparoscopic navigation</li> <li>•Orthopedic navigation</li> </ul>	<b>*Dan Elson</b> <ul style="list-style-type: none"> <li>•Robotic catheters</li> <li>•Robotics in laparoscopic surgery</li> <li>•Robotics for orthopedics</li> <li>•Highly specialized surgical robots</li> </ul>
<b>Afternoon session</b>	<b>*Pietro Valdastri</b> <ul style="list-style-type: none"> <li>•Models for simulator and training stations</li> <li>•Modeling for preoperative planning</li> <li>•Real-time models applied to surgery</li> </ul>	<b>*Philippe Poignet</b> <ul style="list-style-type: none"> <li>•Algorithms for rigid and non-rigid registration</li> <li>•SLAM</li> <li>•Visualization</li> </ul>	<b>*Emmanuel Vander Poorten</b> <ul style="list-style-type: none"> <li>•Haptic feedback</li> <li>•Control</li> <li>•Visual servoing</li> </ul>
<b>Social Event</b>	Dinner		To Be Determined

### Deadlines:

- 15<sup>th</sup> January 2011      500 Word Abstract submission Closes
- 15<sup>th</sup> February 2011    Notification of Acceptance
- 15<sup>th</sup> March 2011        Four-page Manuscript Submission Closes
- 31<sup>st</sup> May 2011          Published Proceedings Online (KU Leuven)
- 15<sup>th</sup> June 2011         Early Bird Registration Closes
- 30<sup>th</sup> June 2011        Regular Registration Closes

Organization Committee:

- Technical University of Graz: Prof. Gerhard A. Holzapfel, Dr. David M. Pierce
- Catholic University of Leuven: Prof. Jos Vander Sloten, Mauro Sette

Technical Committee:

- Modeling in Surgery: Dr. David M. Pierce (Technical University of Graz)
- Navigation in Surgery: Dr. Danail Stoyanov (Imperial College London)
- Robotics in Surgery: Mauro Sette (Catholic University of Leuven)

Participating projects:

- SCATH ([www.scath.net](http://www.scath.net))
- euHeart ([www.euheart.eu](http://www.euheart.eu)) (not yet confirmed)
- SAFROS ([www.safros.eu](http://www.safros.eu)) (not yet confirmed)
- PASSPORT ([www.passport-liver.eu](http://www.passport-liver.eu)) (not yet confirmed)
- ARAKNES ([www.araknes.org](http://www.araknes.org)) (not yet confirmed)
- ROBOCAST (131.175.32.10/Robocast) (not yet confirmed)

Daily Schedule:

- 8:30-9:00 Keynote Lecture.
- 9:00-10:20 4 x 20min presentation (15min + 5min questions).
- 10:20-10:40 Break.
- 10:40-12:00 4 x 20min presentation (15min + 5min questions).
- 12:00-2:00 Lunch.
- 2:00-3:20 4 x 20min presentation (15min + 5min questions).
- 3:20-3:40 Break.
- 3:40- 5:00 4 x 20min presentation (15min + 5min questions).

Contacts and info:

Web-site: [http://www.scath.net/ws\\_2011](http://www.scath.net/ws_2011)

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