Post-doctoral position in medical image processing
ICube, MIV team, University of Strasbourg, CNRS, France

http://icube-miv.unistra.fr/en/index.php/Medical_image_processing

Duration: 18 months

Starting date: as soon as possible in 2017

Context: This position is funded by the project 3D-Surg, which aims at positioning France as a world leader in a range of 3D technologies applied to surgery, through the development of 3D modelling of patients, secured patient data transfer systems, new 3D visualization displays, touchless interface and augmented reality software and glasses (http://www.3d-surg.eu). 3D-Surg relies on a broad consortium including three start-up companies (Visible Patient, Therapixel and Optinvent), two SME (Alioscopy and e-Media), one group (Altran) and two biomedical research institutes (IRCAD and IHU: Institut Hospitalo-Universitaire Strasbourg). Associated partners are Alsace Biovalley, Ecole Centrale de Nantes and ICube Lab.
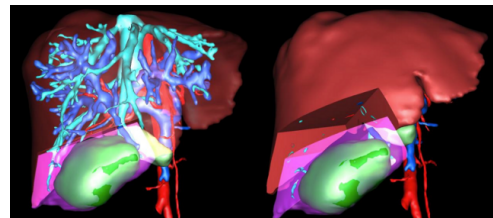
Topic: The purpose of this position is to develop innovative methods and tools for *liver tumor segmentation and abdominal images registration in both CT and MR imaging*. This work will benefit from the preliminary results obtained by a previous post-doctoral researcher [1,2].
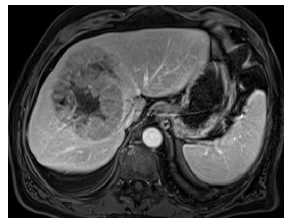
CT   MRI   Segmentation of abdominal organs

[1] Conze, P.-H., Noblet, V., Rousseau, F., Heitz, F., Memeo, R., Pessaux, P. Scale-adaptive supervoxel-based random forests for liver tumor segmentation in dynamic contrast-enhanced CT scans. International Journal of Computer Assisted Radiology and Surgery (IJCARS), 2016, doi:10.1007/s11548-016-1493-1

[2] Conze, P.-H., Tilquin, F., Noblet, V., Rousseau, F., Heitz, F., Pessaux, P. Hierarchical Multi-Scale Supervoxel Matching Using Random Forests for Automatic Semi-Dense Abdominal Image Registration. Submitted to IEEE International Symposium on Biomedical Imaging (ISBI), 2017.

Required background: The recruited candidate must have a PhD in Image or Signal Processing (or, alternatively, in Computer Science). He/she should have a strong expertise in image processing and machine learning. A previous experience in medical imaging would be appreciated. He/she should also have high skills in software development, especially in Python and C++.

Application: Send a Curriculum Vitae, a motivation letter and a link toward homepage and PhD document (English or French) to Fabrice Heitz (fabrice.heitz@unistra.fr) and Vincent Noblet (vincent.noblet@unistra.fr).