

Séminaire de Francois Malgouyres

Séminaire de Francois Malgouyres (Univ. Paris 13), Jeudi 31 mars à 14h00. «Réduction de graphe et application à la segmentation de tumeur pulmonaire dans une image CT»

En savoir plus

Jeudi 31 mars à 14h00 (salle C21)

Francois Malgouyres, Université Paris 13

«Réduction de graphe et application à la segmentation de tumeur pulmonaire dans une image CT»

Résumé: In medical imaging, segmenting accurately lung tumors remains a quite challenging task when they are directly in contact with healthy tissues. In this paper, we address the problem of extracting interactively these tumors with graph cuts. The originality of this work consists in (1) reducing input graphs to decrease drastically memory consumption when segmenting a large volume of data and (2) introducing a novel energy formulation to inhibit the propagation of the object seeds. We detail our strategy to achieve relevant segmentations of lung tumors and compare our results to hand made segmentations provided by an expert. Comprehensive experiments show how our method can give solutions near from ground truth in a fast and memory efficient way.