

Title (en)  
AUTOMATIC BORDER DELINEATION AND DIMENSIONING OF REGIONS USING CONTRAST ENHANCED IMAGING

Title (de)  
AUTOMATISCHE RANDZEICHNUNG UND BEMESSUNG VON BILDBEREICHEN MIT VERWENDUNG EINER KONTRASTERHÖHTEN BILDFORMUNG

Title (fr)  
PROCEDE AUTOMATIQUE DE DELINEATION DES LIMITES ET DE DIMENSIONNEMENT DES REGIONS PAR IMAGERIE A ACCENTUATION DE CONTRASTES

Publication  
**EP 0829068 A1 19980318 (EN)**

Application  
**EP 96916909 A 19960530**

Priority

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- US 45583595 A 19950531

Abstract (en)  
[origin: WO9638815A1] The present invention is a novel system and method for automatically identifying borders of regions of interest within an image of a patient's organ or tissue. The system generates images - before, during and after the administration of a contrast agent. Once the set of images have been taken, the system begins automatic processing of the images. The steps of the processing include the identification of baseline image frames, identification of baseline intensities for each given pixel in the ROI, baseline subtraction on a per-pixel basis, determining a probability of signal-to-noise ratio for each pixel, and thresholding each pixel to determine if a pixel belongs to an area inside the border region or an area outside the border region. To exactly determine which pixels that are at the border, the method refines the set by locally minimizing a total cost function that relates a low value to points typically found on a contrast enhanced image. The border of the region of interest is thereby determined.

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