VARIABLE BANDWIDTH MEAN SHIFT FOR SMOOTHING ULTRASONIC IMAGES (TueAmPO3)

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Abstract :

As the variance of the statistics of ultrasonic data in a homogeneous tissue may be rather large and the statistics of different tissues may be very similar, a new filtering approach is proposed to enhance the contrast in ultrasonic images. It is based on the Variable Bandwidth Mean Shift algorithm adapted to the specificities of ultrasonic data. A fully automatic adaptive bandwidth selection in both range and spatial domains is described. Our method was compared to a Variable Bandwidth Mean Shift algorithm based on an adaptive range scale selection and a fixed spatial scale parameter. The results show the superiority of our method.

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