Ultrasonic tomography - image reconstruction algorithms

Abstract

This paper focuses on image reconstruction algorithms for use in ultrasonic tomography. There are three types of algorithms namely Linear Back Projection, Hybrid Reconstruction and Hybrid Binary Reconstruction that are of interest. The algorithms have been evaluated on ultrasonic tomography system based on several known phantoms and real objects. The performance of the algorithms have been analyzed and discussed at the end of the paper. A recommendation of suitable reconstruction algorithm for liquid/gas flows has also been made at the end of the paper.

Keywords