

Ultrasound computed tomography (USCT) is an imaging modality intended as an alternative to X-ray and conventional ultrasound imaging in breast cancer diagnostics. The acquisition setup is similar to X-ray computed tomography (CT). This contribution focusses on sound-speed image reconstruction. An approach to overcome sparse transducer distribution and low SNR by means of synthetic-aperture focusing is presented. Example results reconstructed from data measured on a breast phantom are shown.