boney prominences, this is unlikely to be the case. It is hypothesized that this variable strain field may be due to the large deformations present along the superior surface of the domain.

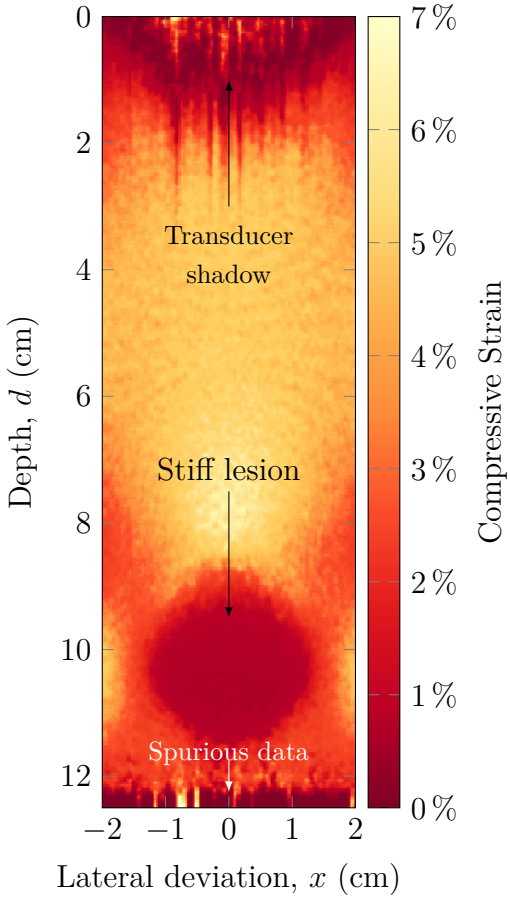

Fig. 3.5: Sample strain elastogram showing estimated strain values for $d = 10\,\text{cm}$, $\varnothing S = 2.5\,\text{cm}$, $\varepsilon_{rel} = 3.20$, $f = 4\,\text{MHz}$. While undetectable on a single b-mode image, the elastogram clearly shows a low-strain (stiff) lesion located approximately 10 cm from the surface.

3.3.3 Numerical Characterizations

In order to determine the sensitivity of using quasi-static ultrasound elastography to detect deep tissue injuries, elastograms such as the example that was calculated in Section 3.3.2 were calculated for the full range of parameters