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Title:	3D Photoacoustic Tomography Setup Calibration
Authors:	<a href="#">Sumith, K.K.</a>
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Abstract:	Photoacoustic tomography is a fast-growing biomedical imaging method for last few years. In photoacoustic tomography, the target is illuminated by a pulsed laser and the absorption of the light leads to an outward travelling pressure wave called a photoacoustic effect. This pressure wave is used for image reconstruction of the optically illuminated object. Domain for the PAT is both optical and acoustic so that it has a lot of advantages as high penetration depth, good spatial resolution, high contrast, etc. Because of its non-ionising property it is widely using in medical field related to micro-vascular systems. This thesis is about the calibration of 3D photoacoustic setup. The calibration aims to find the geometrical parameters which are needed for image reconstruction. For the calibration a detector array is rotating around the calibration object and estimates the calibration parameters which are speed of sound, source position, the center of rotation of detector array.
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