Reviewer’s report

Title: An automated in-vitro model for the evaluation of Ultrasound modalities measuring myocardial deformation

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Reviewer: Rosa Sicari

Reviewer’s report:

This is an interesting study addressing an important issue: the reproducibility of myocardial deformation. Authors adopted an experimental model with a phantom. The automated system appears feasible for the purpose of the study. However, there are a few issues that authors should address:

1. As stated in the background any technique should go through a careful evaluation of its accuracy and reproducibility. Authors should expand this issue, since their approach is a little bit outdated since myocardial imaging is available on any echo machine, maybe long before it has been carefully evaluated. Please comment.

2. In the abstract section of the manuscript there are no numbers and the results section of the manuscript is poor.

3. The clinical implications of the study are not clear and should be better defined in the manuscript.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'