Reviewer’s report

Title: Cross-sectional associations between variations in ankle shape by statistical shape modeling, injury history, and race: the Johnston County Osteoarthritis Project

Version: 1 Date: 02 Jun 2017

Reviewer: Michele Conconi

Reviewer’s report:

Thanks to the authors for the punctual reply to my observations. Few finale notes where felt necessary.

2 - Although the scanning process is now more clear, some further detail on how the patient is told to stand within the scanner will help. Is the alignment functional (stand as you are more comfortable)? There is any control on the foot-tibia angle, for instance by means of a rig? It is not just a matter of how the x-ray camera is positioned, but also how the subject stand within the field of view.

3 - Same as previous point.

6 - The proposed analysis is appealing since it aim at providing a valuable clinical tool that relay on common medical images. However, the simplification imposed by the 2-dimansional representation or articular surfaces may rise some doubts about the effectiveness of the proposed approach. A validation of the same on a smaller population with 3D data could highly support the obtained results.

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An article whose findings are important to those with closely related research interests

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