Biomechanical Validation of Upper-body and lower-body 
Joint Movements of Kinect Motion Capture Data

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New and powerful hardware like Kinect introduces the possibility of changing biomechanics paradigm, usually based on expensive and complex equipment. Kinect is a markerless and cheap technology recently introduced from videogame industry. In this work we conduct a comparison study of the precision in the computation of joint angles between Kinect and an optical motion capture professional system. We obtain a range of disparity that guaranties enough precision for most of the clinical rehabilitation treatments prescribed nowadays for patients. This way, an easy and cheap validation of these treatments can be obtained automatically, ensuring a better quality control process for the patient’s rehabilitation.

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