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 introducesthe possibility of changing biomechanicsparadigm, usually based on expensive and complex equipment. Kinect is a markerless and cheap technology recently introduced from videogame industry. In this work we conducta comparison study of the precision in the computation of joint angles between Kinect and an optical motion capture professionalsystem. We obtain a range of disparity thatguaranties enough precision for most of the clinical rehabilitation treatments prescribednowadays for patients. This way, an easy and cheap validation of these treatments can beobtained automatically, ensuring a better qualitycontrol process for the patient’s rehabilitation.

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