# Calgary_issue_report

February 19, 2019

0.1 Readme

This notebook was created to give a general idea of the different error patterns we noticed in the data. To this end, for each pattern, one exemplary subject was identified and the resulting pattern is shown in the complementary code/output cells.

In particular the patterns of the subjects 10, 167, 293 were frequent.

0.1.1 Subject 10 - Right thigh angular velocities

All components of the simulated angular velocity show a very high peak value at the beginning of the trial.
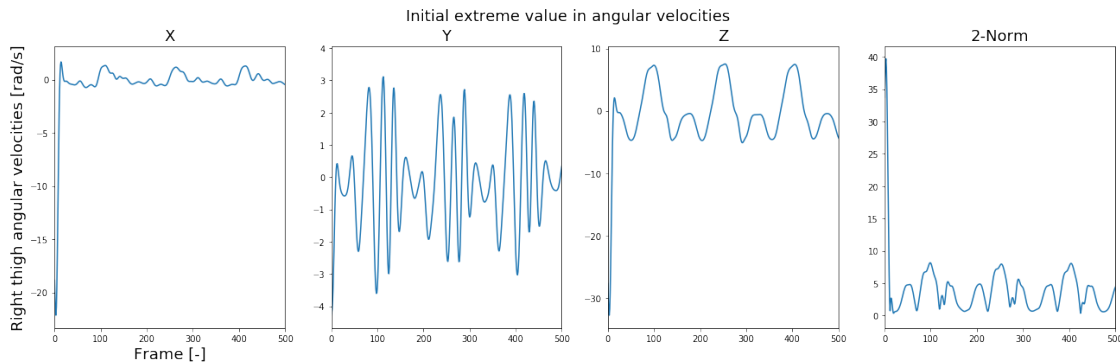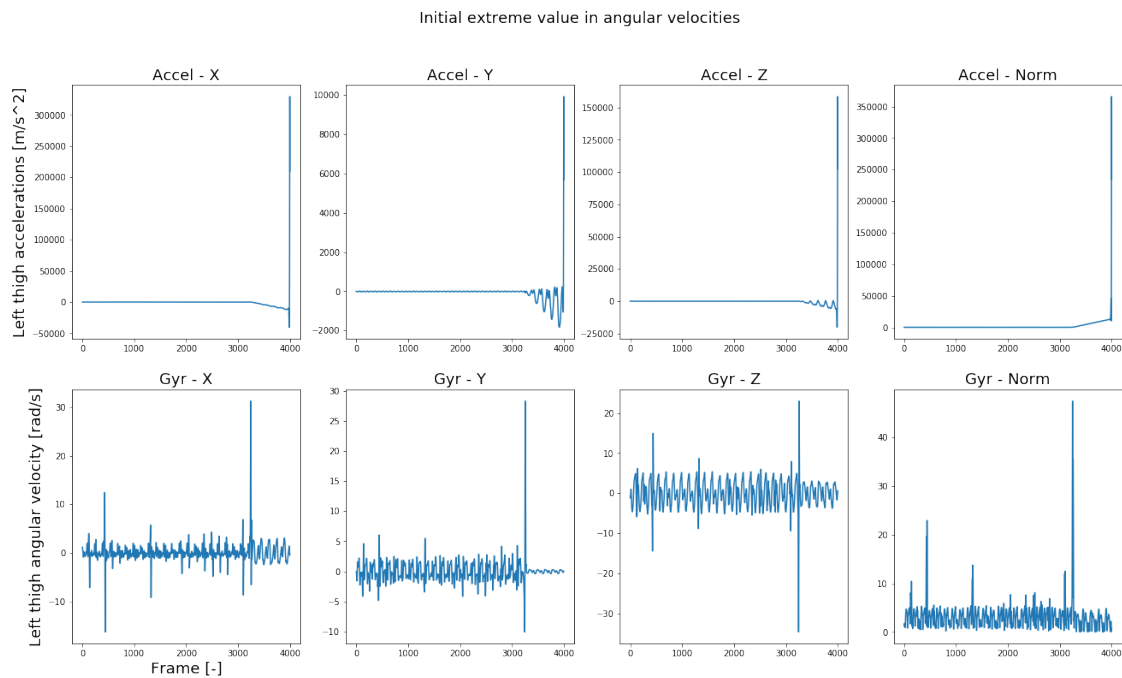

0.1.2 Subject 167 - Right knee angles

In this case, a sudden shift in the mean of the angle waveform is noticeable. Here, this is accompanied by a high peak value in the rotation angle, but this does not necessarily have to be the case.

Sudden change in angle mean
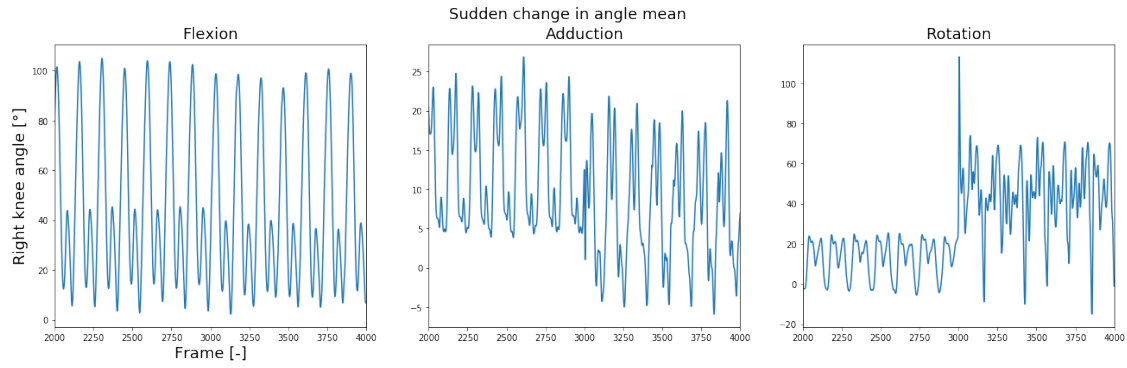
0.1.3 Subject 219 - Left thigh accelerations and angular velocities

The angular velocities and in particular the accelerations show some sudden peak-values. Additionally, the simulated acceleration (based on one individual marker trajectory) behaves weirdly towards the end of the trial.

Initial extreme value in angular velocities

0.1.4 Subject 277 - Right knee angles

At the beginning of this trial, all three joint angles of the right knee show some erratic waveform progression.

2
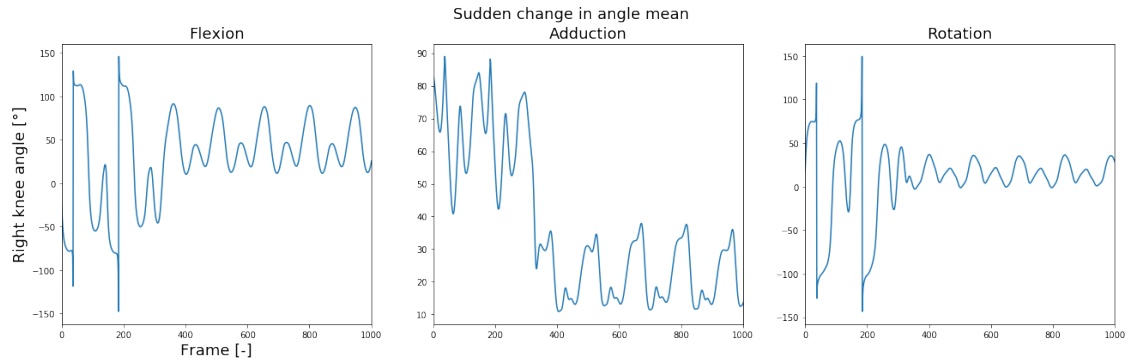
0.1.5 Subject 293 - Left thigh angular velocities

The difference in magnitude between the right and the left leg is one of the most common problems we noticed in the dataset. Interestingly, this is only one side and only for the components about the X- and Y-axis (X = forward, Y = up).