

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.0449056646483, median 0.0421641354996, std: 0.0235748049835
Gyroscope error (imu0): mean 0.057216848919, median 0.049862215354, std: 0.0326038105575
Accelerometer error (imu0): mean 0.664951099119, median 0.314783140362, std: 0.71982096582

Residuals

Reprojection error (cam0) [px]: mean 0.0449056646483, median 0.0421641354996, std: 0.0235748049835
Gyroscope error (imu0) [rad/s]: mean 0.00404584218688, median 0.00352579106018, std: 0.0023054375
Accelerometer error (imu0) [m/s²]: mean 0.094038286269, median 0.0445170586307, std: 0.1017980572

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[ 0.99996396 0.00049362 0.00847566 -0.04008059]
 [-0.00041954 0.99996171 -0.00874032 -0.0103984 ]
 [-0.00847965 0.00873645 0.99992588 -0.00185108]
 [ 0.         0.         0.         1.         ]]
```

T_ic: (cam0 to imu0):

```
[[ 0.99996396 -0.00041954 -0.00847965 0.04005909]
 [ 0.00049362 0.99996171 0.00873645 0.01043396]
 [ 0.00847566 -0.00874032 0.99992588 0.00209977]
 [ 0.         0.         0.         1.         ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
0.0012302761676498473

Gravity vector in target coords: [m/s²]

```
[ 9.8041157 -0.21442975 0.04193101]
```

Calibration configuration

Camera model: pinhole
Focal length: [468.2527687453535, 468.3265694180005]
Principal point: [364.91196913276707, 215.81303741968622]
Distortion model: equidistant
Distortion coefficients: [0.011135829319036753, -0.05338166866546771, 0.15329931633590166, -0.1346
Type: checkerboard
Rows
 Count: 7
 Distance: 0.07 [m]
Cols
 Count: 6
 Distance: 0.07 [m]

IMU configuration

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IMU0:

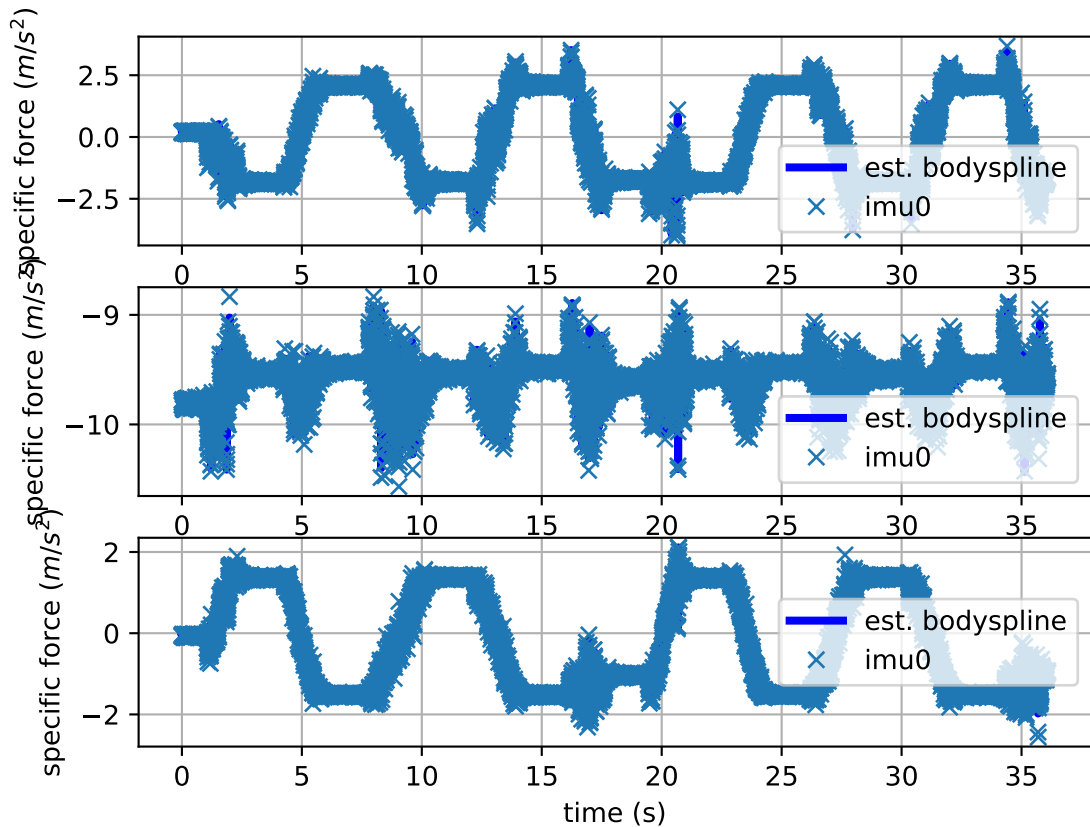
Model: calibrated
Update rate: 200.0
Accelerometer:
 Noise density: 0.01
 Noise density (discrete): 0.141421356237
 Random walk: 0.0002
Gyroscope:
 Noise density: 0.005
 Noise density (discrete): 0.0707106781187
 Random walk: 4e-06

T_i_b

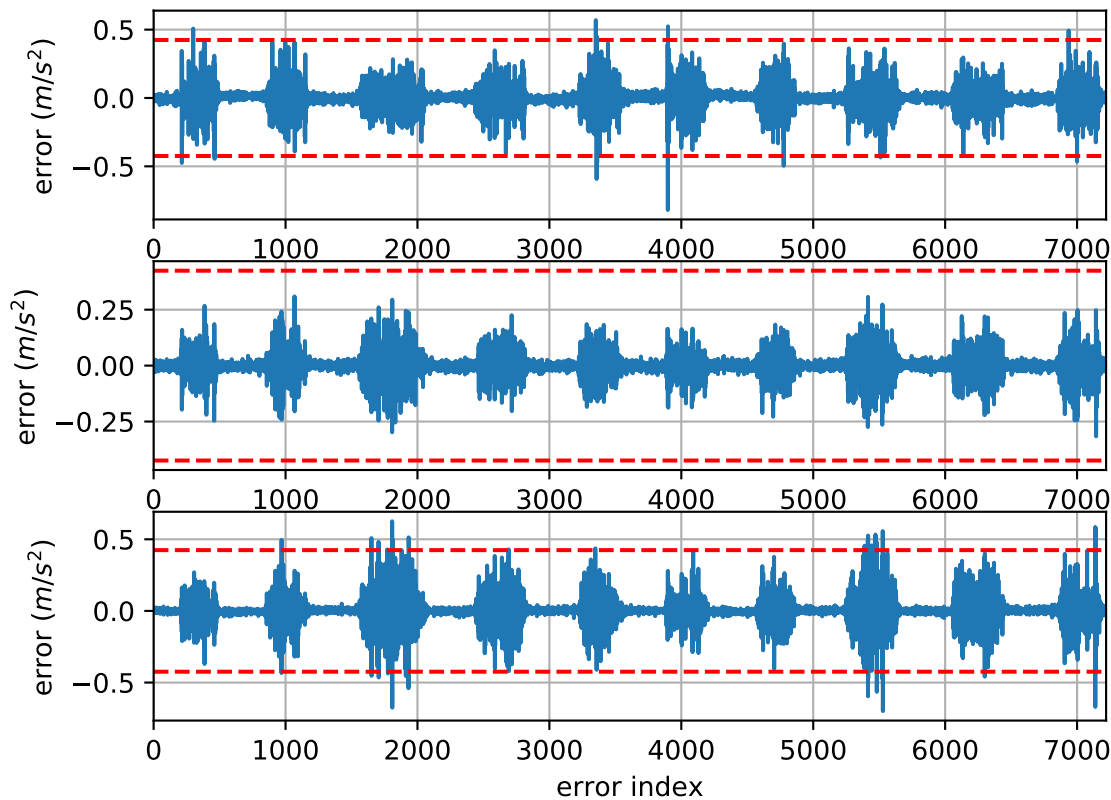
[[1. 0. 0. 0.]
[0. 1. 0. 0.]
[0. 0. 1. 0.]
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

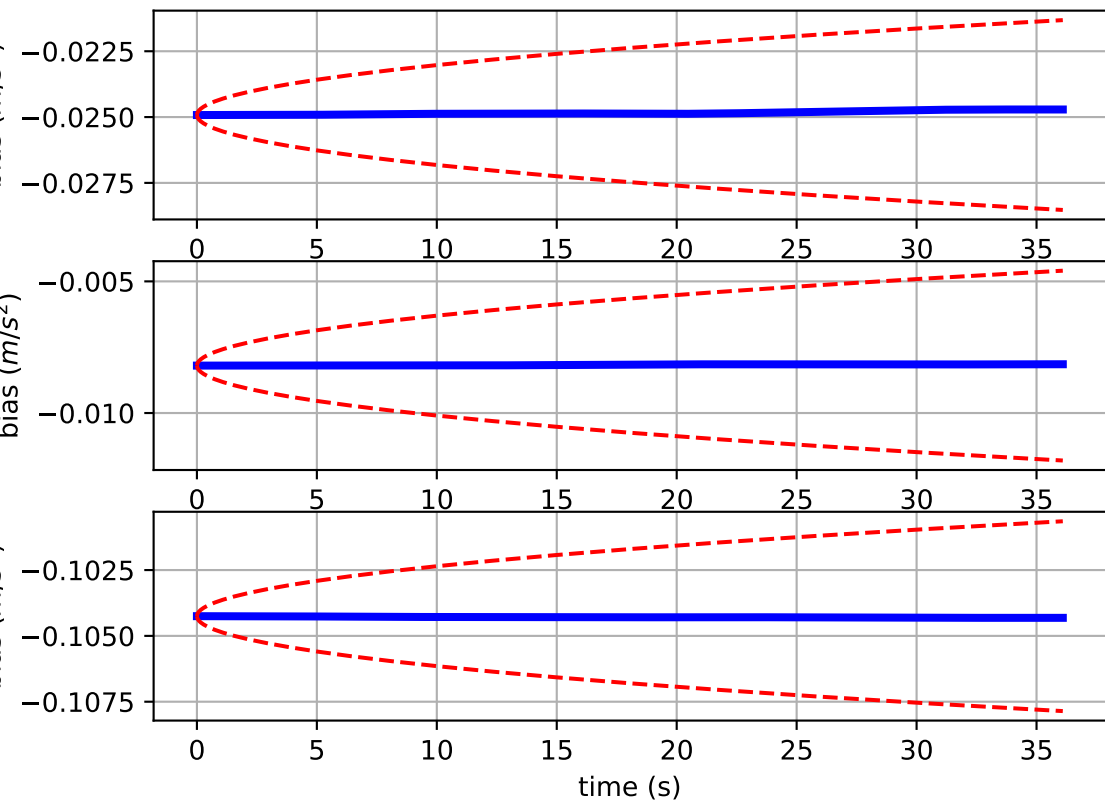
Comparison of predicted and measured specific force (imu0 frame)



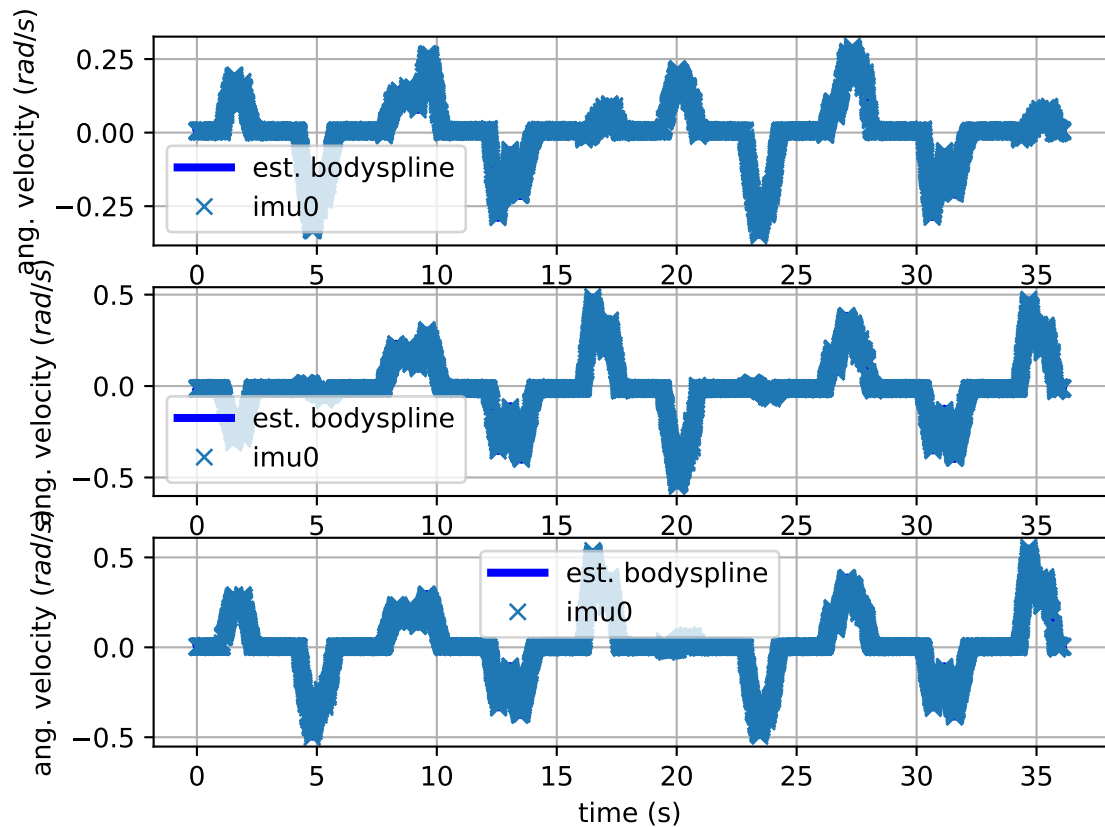
imu0: acceleration error



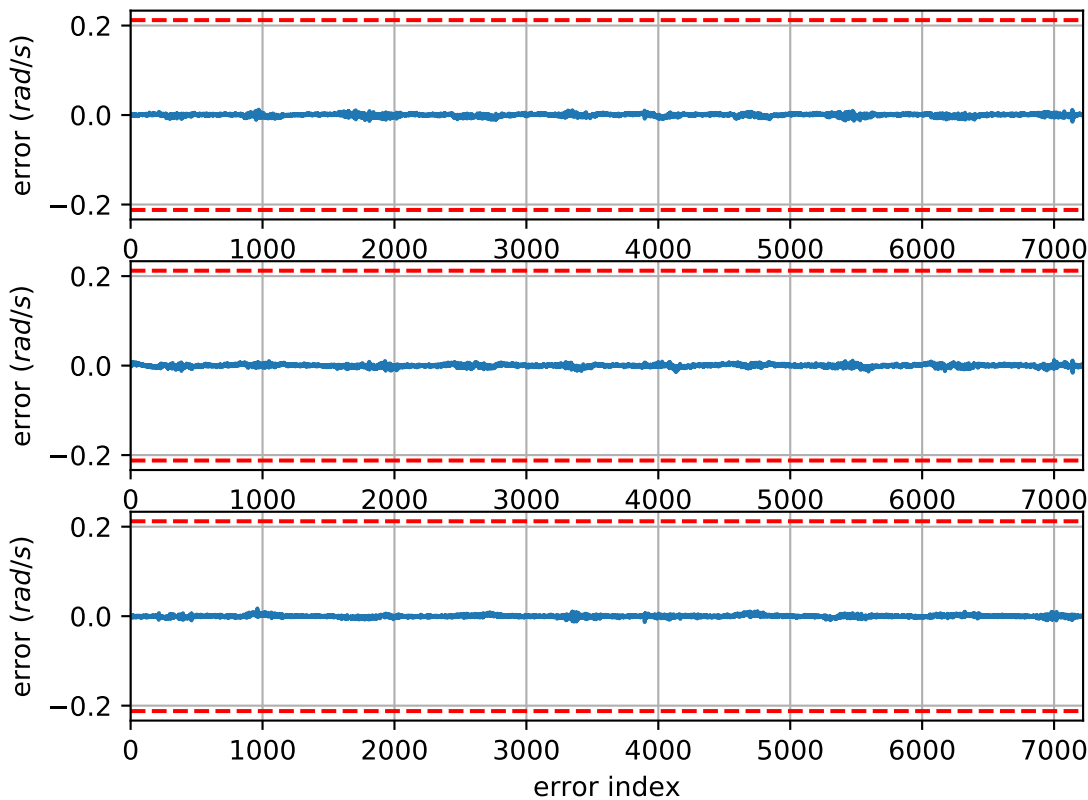
imu0: estimated accelerometer bias (imu frame)



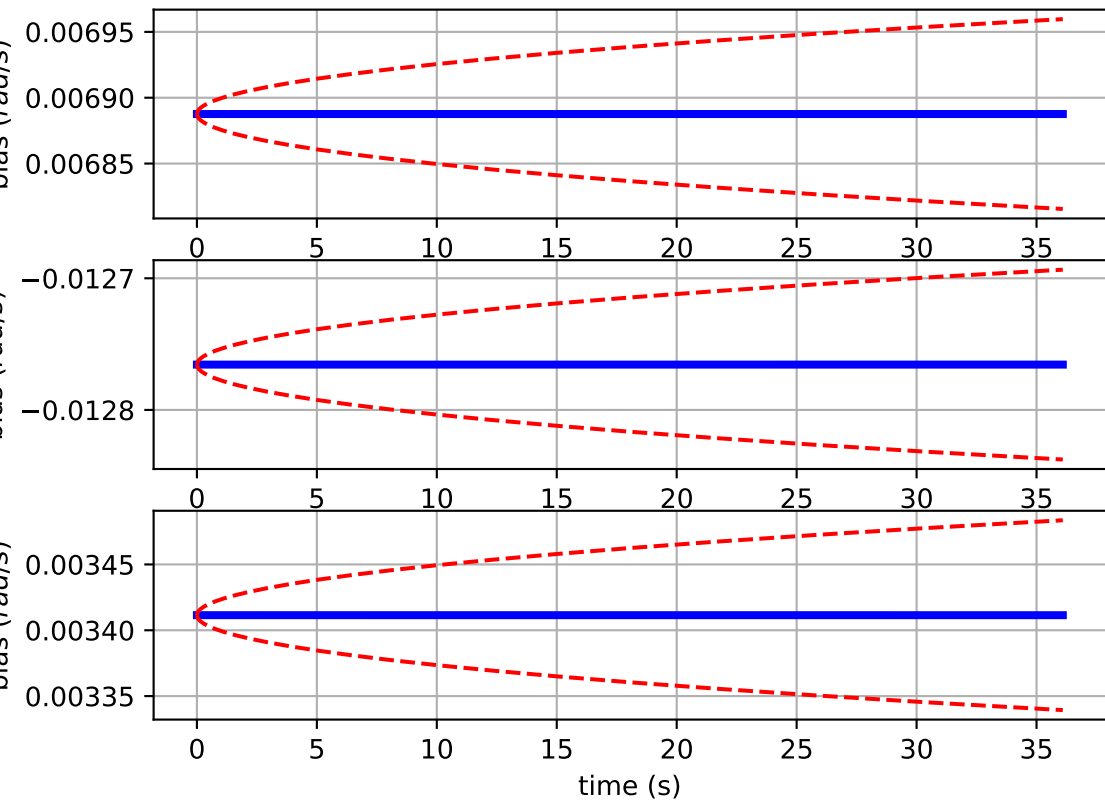
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

