

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.0477745483952, median 0.0445860867787, std: 0.0253743378855
Gyroscope error (imu0): mean 0.0564088980478, median 0.0482112510766, std: 0.0333482072249
Accelerometer error (imu0): mean 0.660988991387, median 0.304833160712, std: 0.723764304925

Residuals

Reprojection error (cam0) [px]: mean 0.0477745483952, median 0.0445860867787, std: 0.0253743378855
Gyroscope error (imu0) [rad/s]: mean 0.00398871143288, median 0.00340905025657, std: 0.0023580743
Accelerometer error (imu0) [m/s^2]: mean 0.0934779596199, median 0.0431099190141, std: 0.102355729

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[ 0.99996986  0.00159462  0.00759799 -0.04231049]
 [-0.00153431  0.99996732 -0.00793735 -0.01890976]
 [-0.0076104  0.00792545  0.99993963 -0.00588292]
 [ 0.         0.         0.         1.        ]]
```

T_ic: (cam0 to imu0):

```
[[ 0.99996986 -0.00153431 -0.0076104  0.04223543]
 [ 0.00159462  0.99996732  0.00792545  0.01902324]
 [ 0.00759799 -0.00793735  0.99993963  0.00605394]
 [ 0.         0.         0.         1.        ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
0.0012084003774443294

Gravity vector in target coords: [m/s^2]
[9.80433577 -0.2046462 0.03928137]

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:

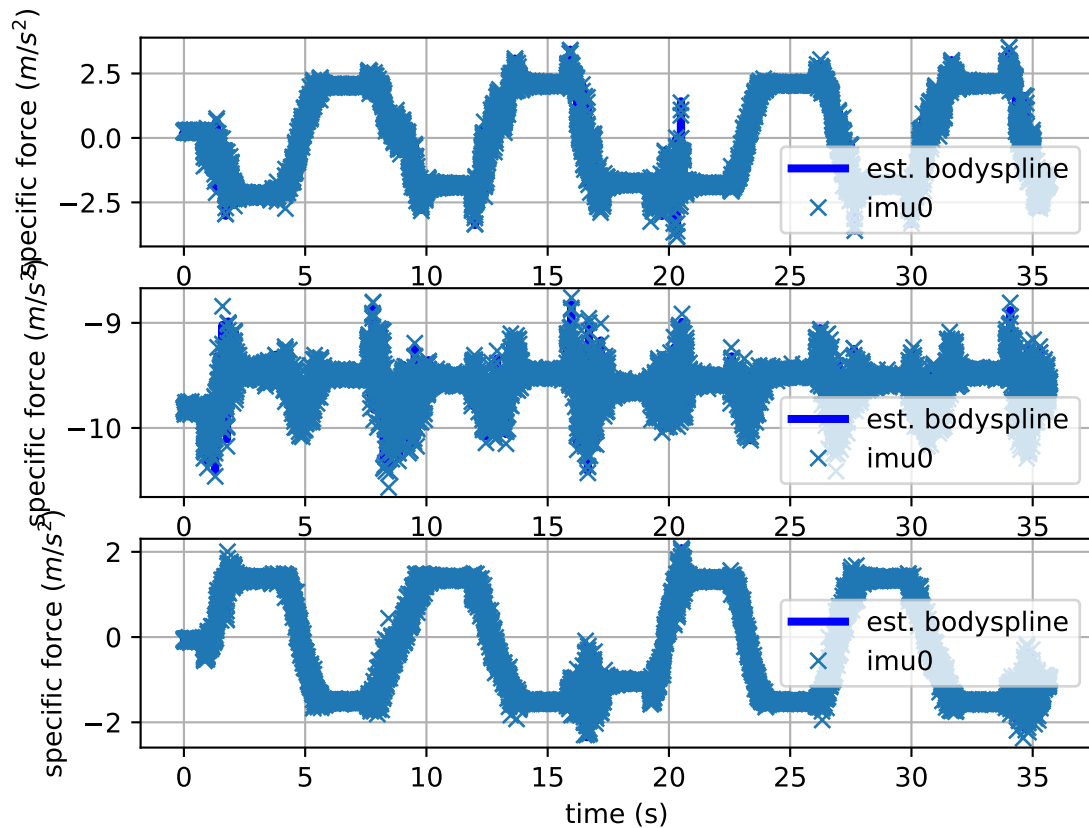
Model: calibrated
Update rate: 200.0
Accelerometer:
 Noise density: 0.01
 Noise density (discrete): 0.141421356237
 Random walk: 0.0002
Gyroscope:
 Noise density: 0.005
 Noise density (discrete): 0.0707106781187
 Random walk: 4e-06

T_i_b

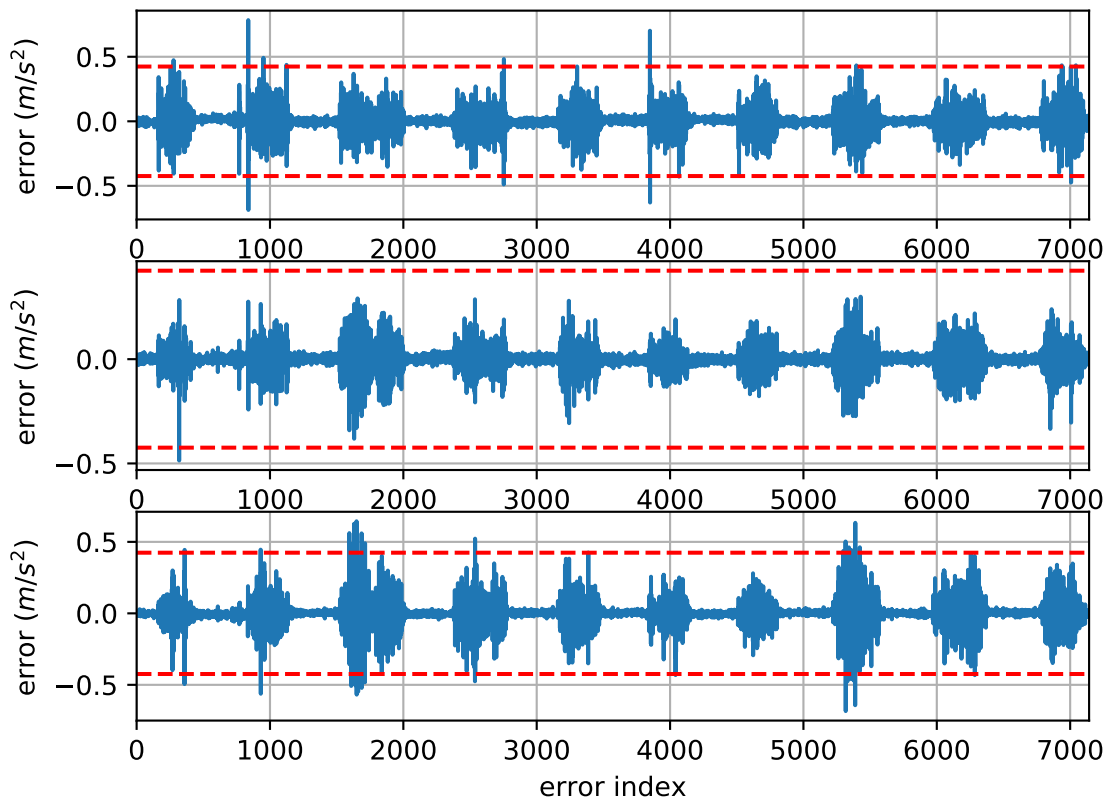
[[1. 0. 0. 0.]
[0. 1. 0. 0.]
[0. 0. 1. 0.]
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

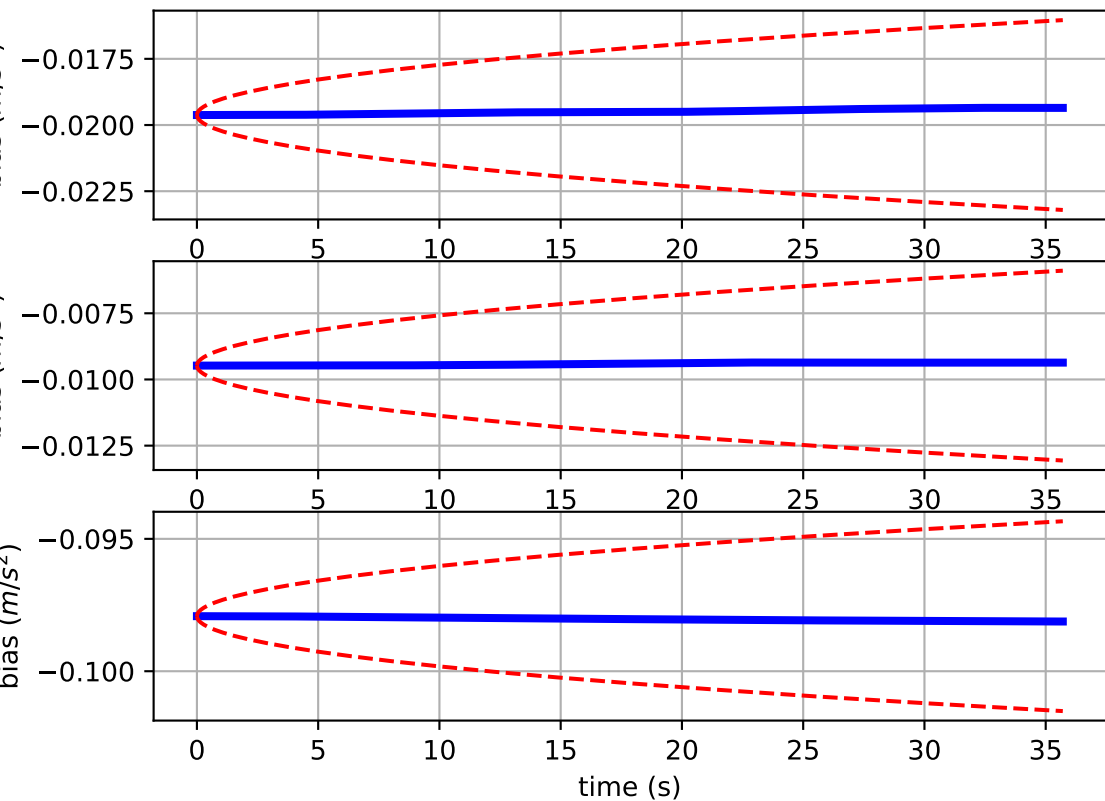
Comparison of predicted and measured specific force (imu0 frame)



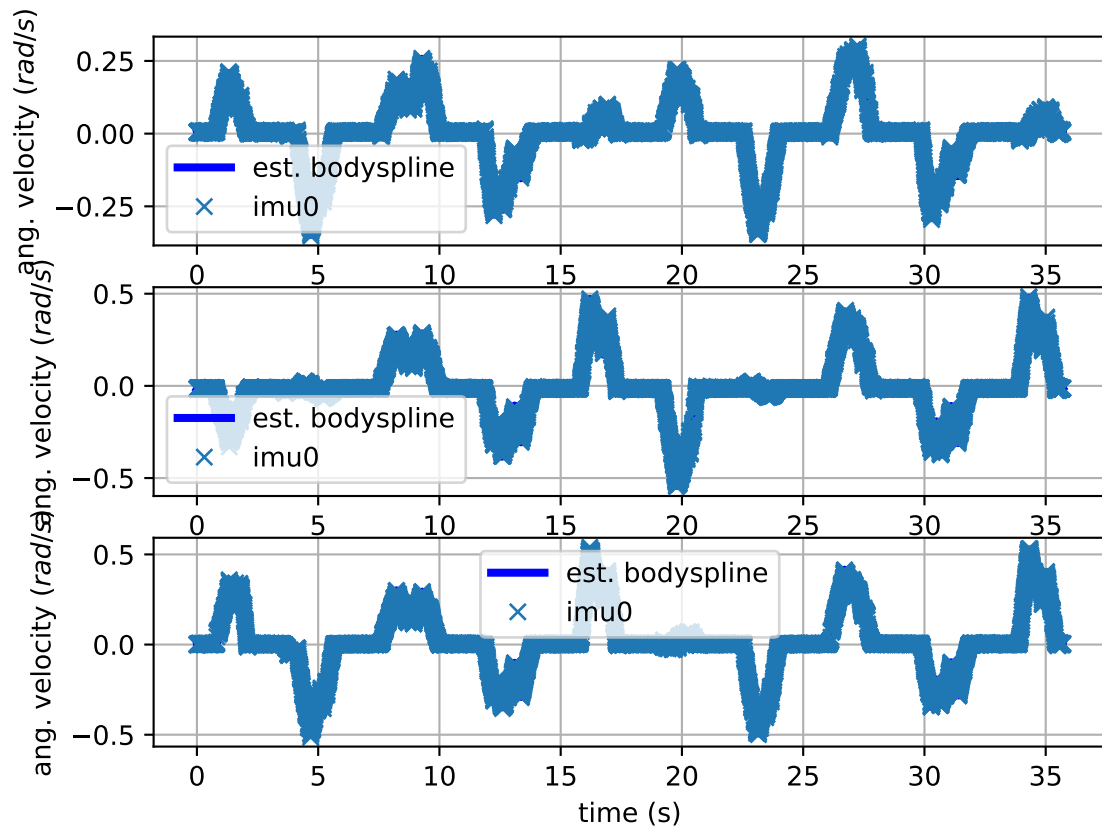
imu0: acceleration error



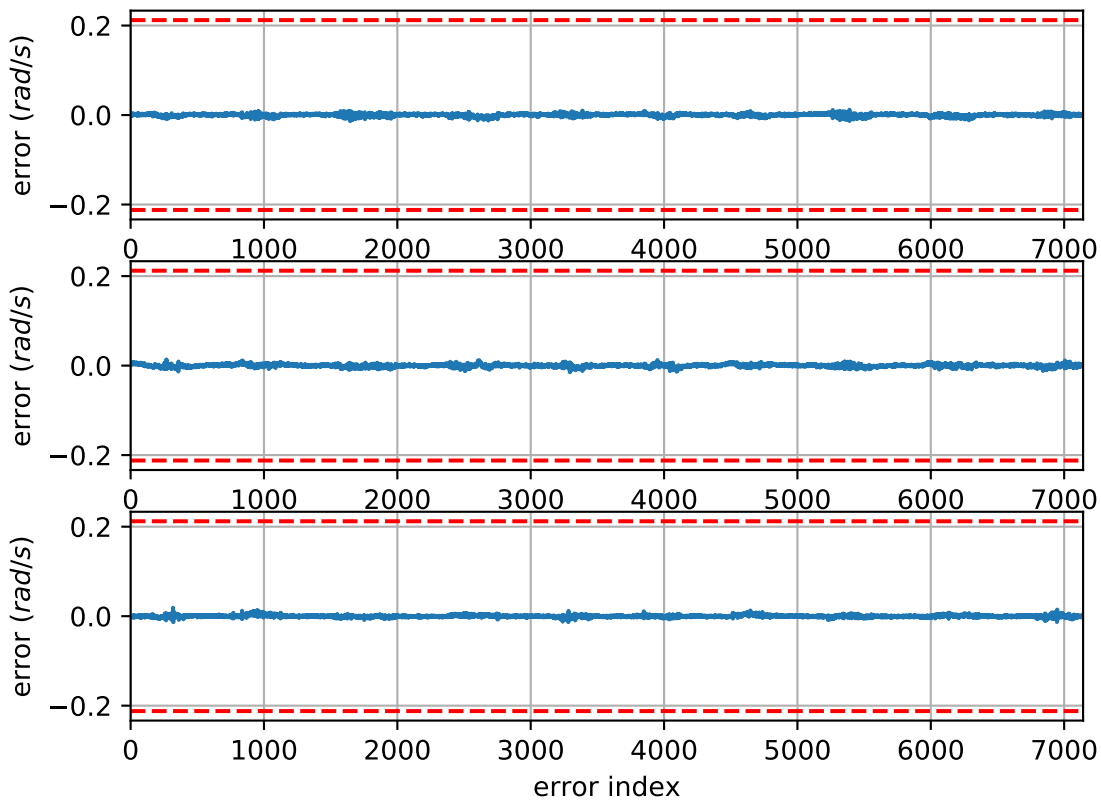
imu0: estimated accelerometer bias (imu frame)



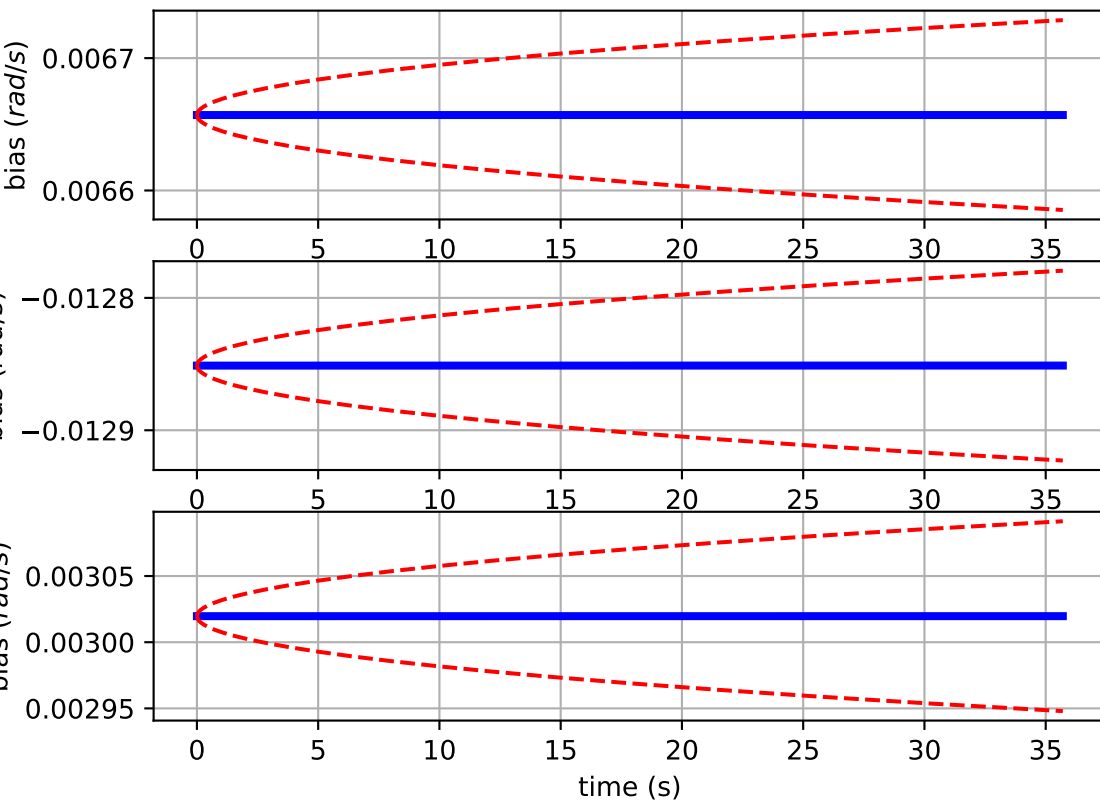
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

