

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.0466257136967, median 0.0432307506604, std: 0.0249619961511
Gyroscope error (imu0): mean 0.0726582123038, median 0.0511712643599, std: 0.0648871539854
Accelerometer error (imu0): mean 1.04360777417, median 0.26596373019, std: 1.65052934004

Residuals

Reprojection error (cam0) [px]: mean 0.0466257136967, median 0.0432307506604, std: 0.0249619961511
Gyroscope error (imu0) [rad/s]: mean 0.00513771146289, median 0.00361835480308, std: 0.0045882146
Accelerometer error (imu0) [m/s²]: mean 0.147588426804, median 0.0376129514334, std: 0.2334200977

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[ 0.99996992  0.00180224  0.00754376 -0.0410696 ]
 [-0.00173202  0.99995521 -0.00930509 -0.00672487]
 [-0.00756019  0.00929175  0.99992825 -0.00600522]
 [ 0.          0.          0.          1.          ]]
```

T_ic: (cam0 to imu0):

```
[[ 0.99996992 -0.00173202 -0.00756019  0.04101131]
 [ 0.00180224  0.99995521  0.00929175  0.00685439]
 [ 0.00754376 -0.00930509  0.99992825  0.00625203]
 [ 0.          0.          0.          1.          ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
0.001045951835002167

Gravity vector in target coords: [m/s²]
[9.80446144 -0.19771036 0.04323688]

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:

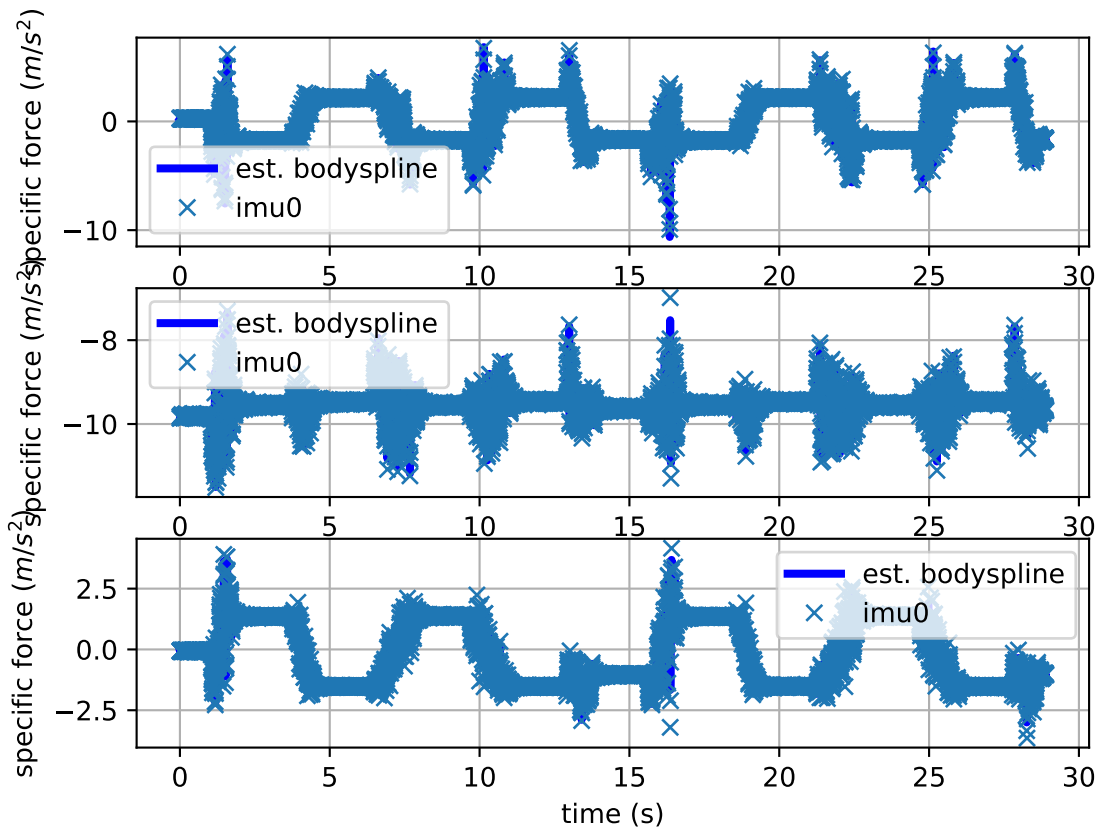
Model: calibrated
Update rate: 200.0
Accelerometer:
 Noise density: 0.01
 Noise density (discrete): 0.141421356237
 Random walk: 0.0002
Gyroscope:
 Noise density: 0.005
 Noise density (discrete): 0.0707106781187
 Random walk: 4e-06

T_i_b

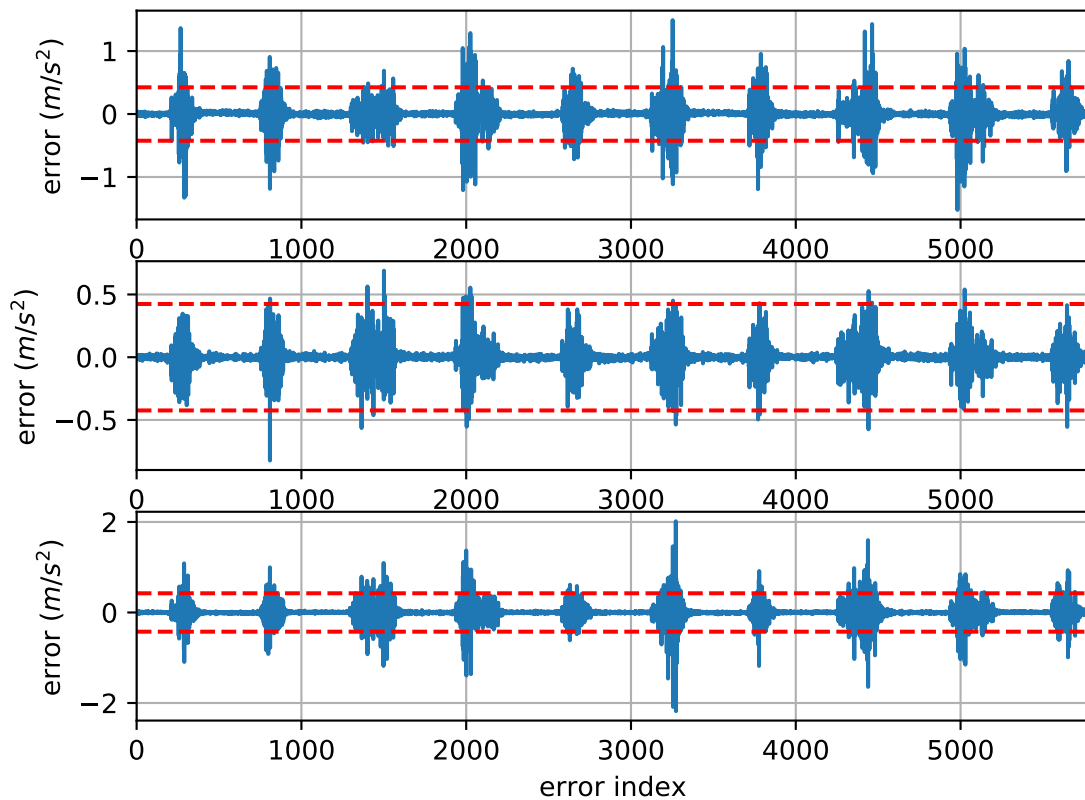
[[1. 0. 0. 0.]
[0. 1. 0. 0.]
[0. 0. 1. 0.]
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

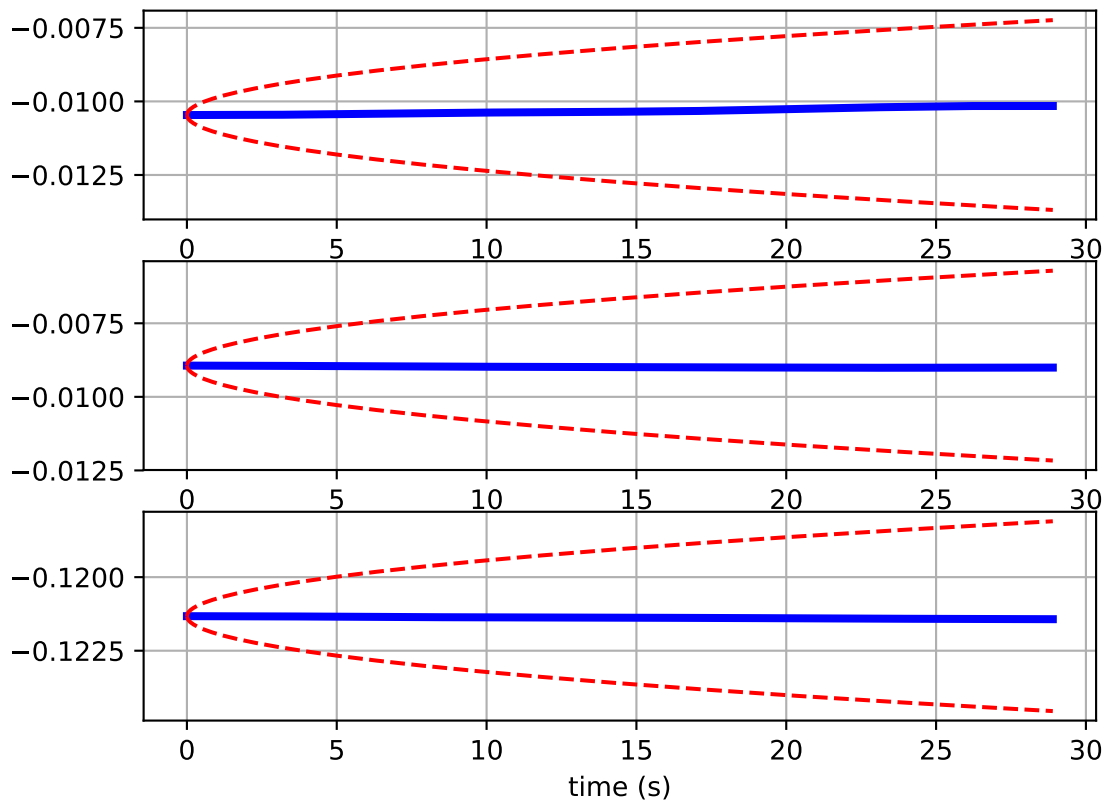
Comparison of predicted and measured specific force (imu0 frame)



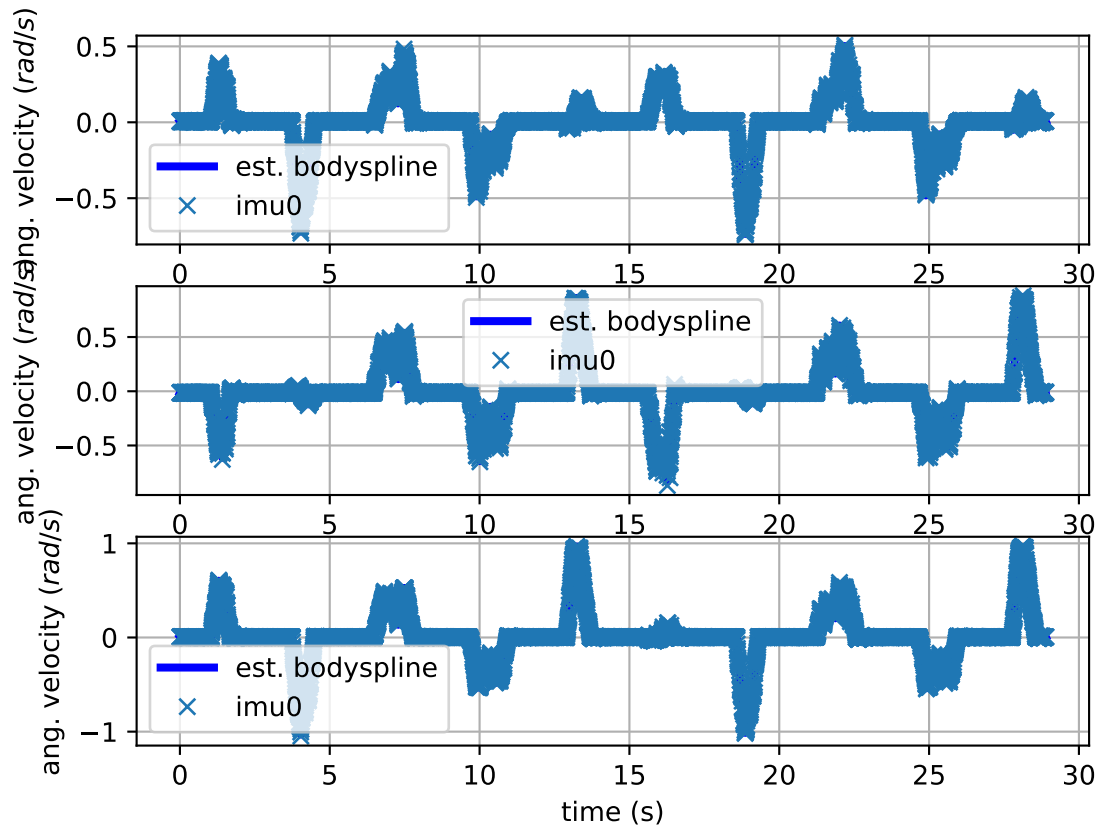
imu0: acceleration error



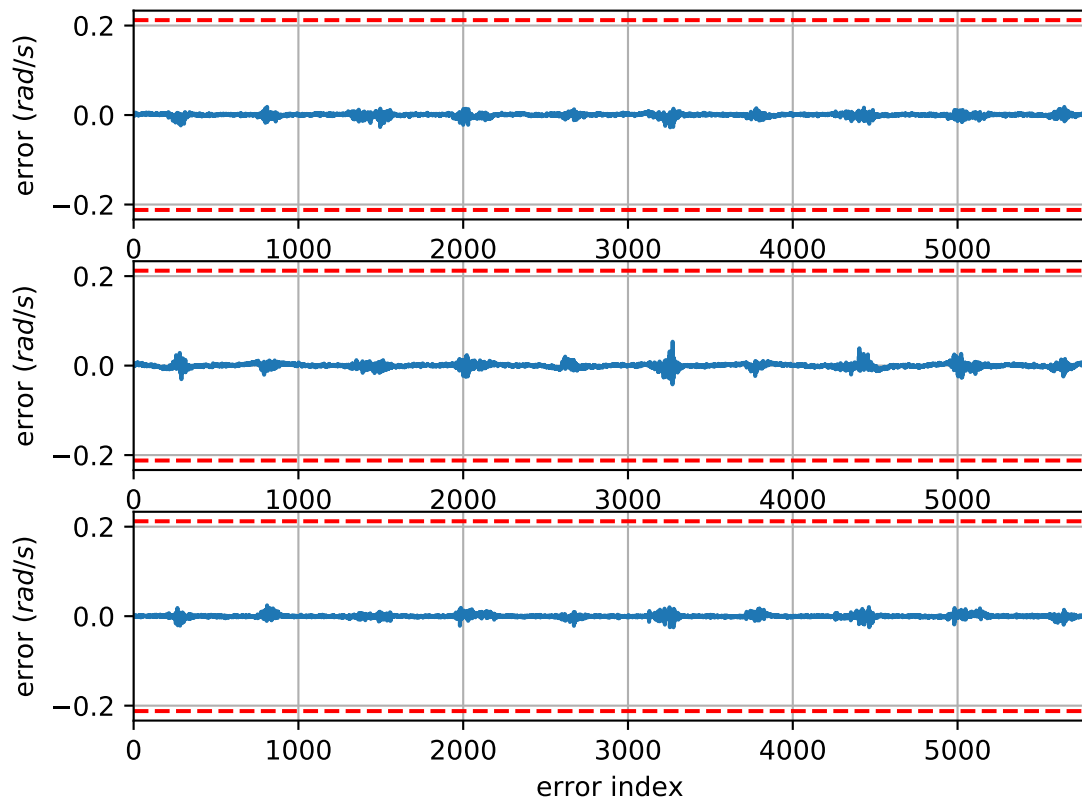
imu0: estimated accelerometer bias (imu frame)



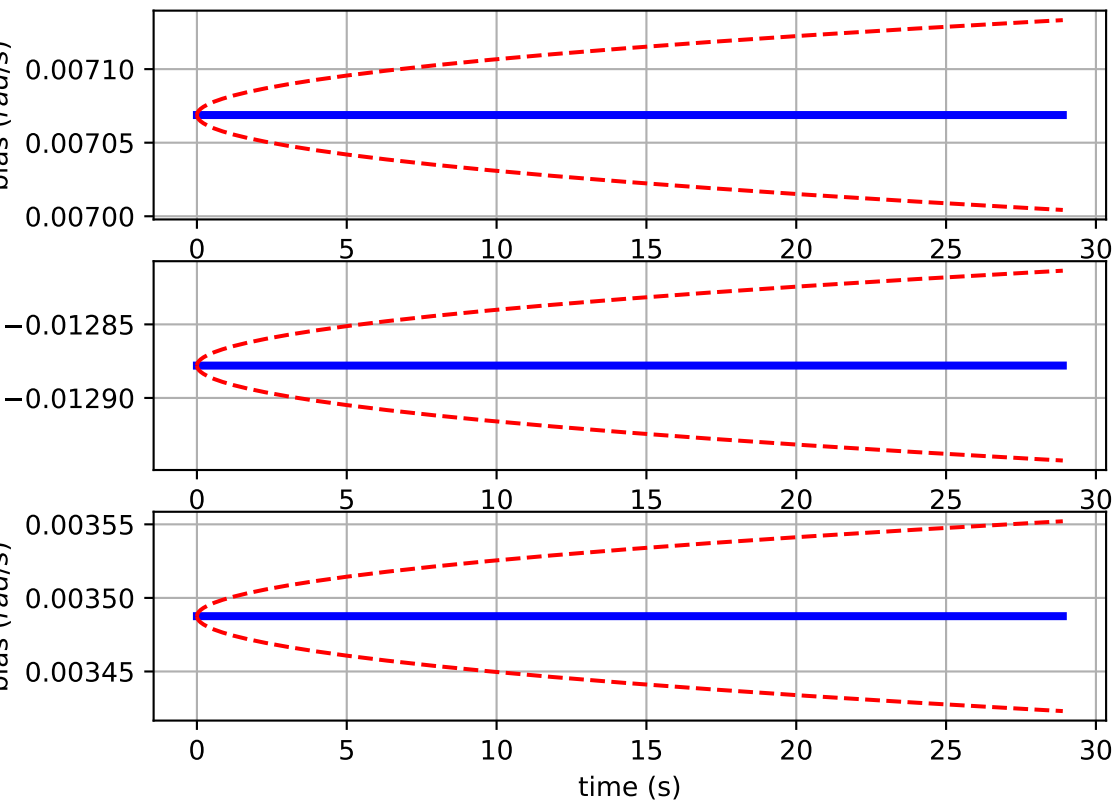
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

