

Calibration results

Normalized Residuals

Reprojection error (cam0): mean 12.76341538967868, median 12.665835383241143, std: 3.4124501990113365

Gyroscope error (imu0): mean 1.3850631567615128, median 1.116507833723004, std: 1.0203175035096443

Accelerometer error (imu0): mean 4.55194453337649, median 2.8078830859051758, std: 4.109044808478977

Residuals

Reprojection error (cam0) [px]: mean 12.76341538967868, median 12.665835383241143, std: 3.4124501990113365

Gyroscope error (imu0) [rad/s]: mean 0.07063822099483717, median 0.05694189951987322, std:

0.05203619267899187

Accelerometer error (imu0) [m/s²]: mean 0.6372722346727085, median 0.3931036320267245, std:
0.5752662731870568

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[-0.01222032 -0.99987394  0.01013755  0.05896136]
 [-0.9996079 -0.01196037  0.02531785  0.08373735]
 [-0.02519341 -0.01044297 -0.99962805 -0.20994176]
 [ 0.          0.          1.          ]]]
```

T_ic: (cam0 to imu0):

```
[[-0.01222032 -0.9996079 -0.02519341  0.07769484]
 [-0.99987394 -0.01196037 -0.01044297  0.05776304]
 [ 0.01013755  0.02531785 -0.99962805 -0.21258144]
 [ 0.          0.          1.          ]]]
```

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

0.03636097332031909

Gravity vector in target coords: [m/s²]

```
[ 0.10913979  9.77593591 -0.76654318]
```

Calibration configuration

cam0

Camera model: pinhole

Focal length: [1351.3497, 1351.3497]

Principal point: [954.5206, 724.4945]

Distortion model: radtan

Distortion coefficients: [0, 0, 0, 0]

Type: aprilgrid

Tags:

Rows: 6

Cols: 6

Size: 0.039 [m]

Spacing 0.00035099999999999997 [m]

IMU configuration

IMU0:

Model: calibrated

Update rate: 100

Accelerometer:

Noise density: 0.014

Noise density (discrete): 0.1399999999999999

Random walk: 0.0025

Gyroscope:

Noise density: 0.0051

Noise density (discrete): 0.05100000000000004

Random walk: 0.0005

T_ib (imu0 to imu0)

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

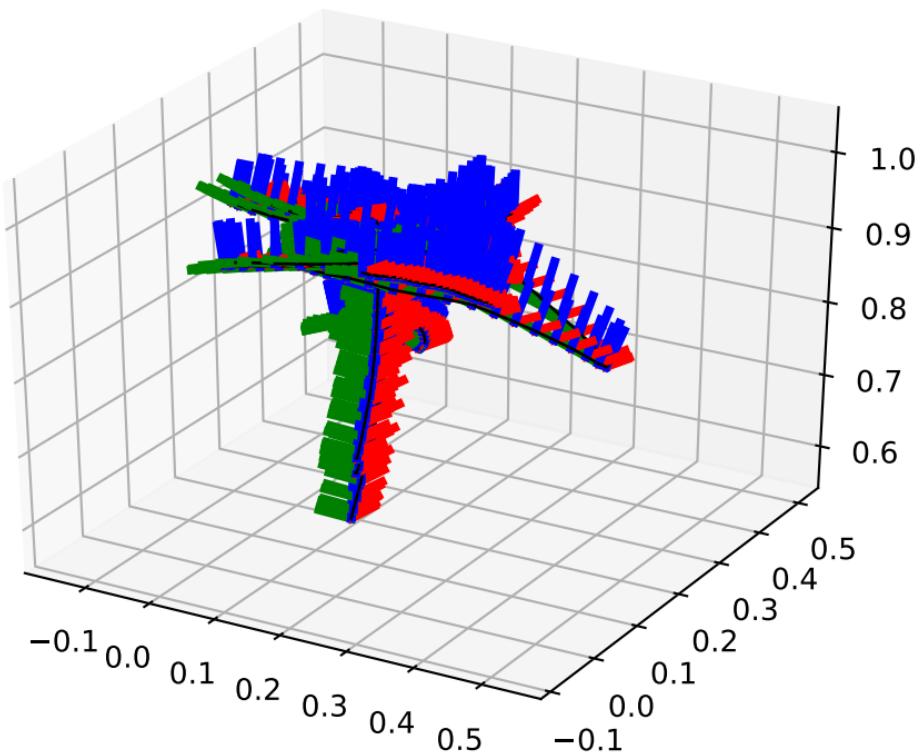
[0. 1. 0. 0.]

[0. 0. 1. 0.]

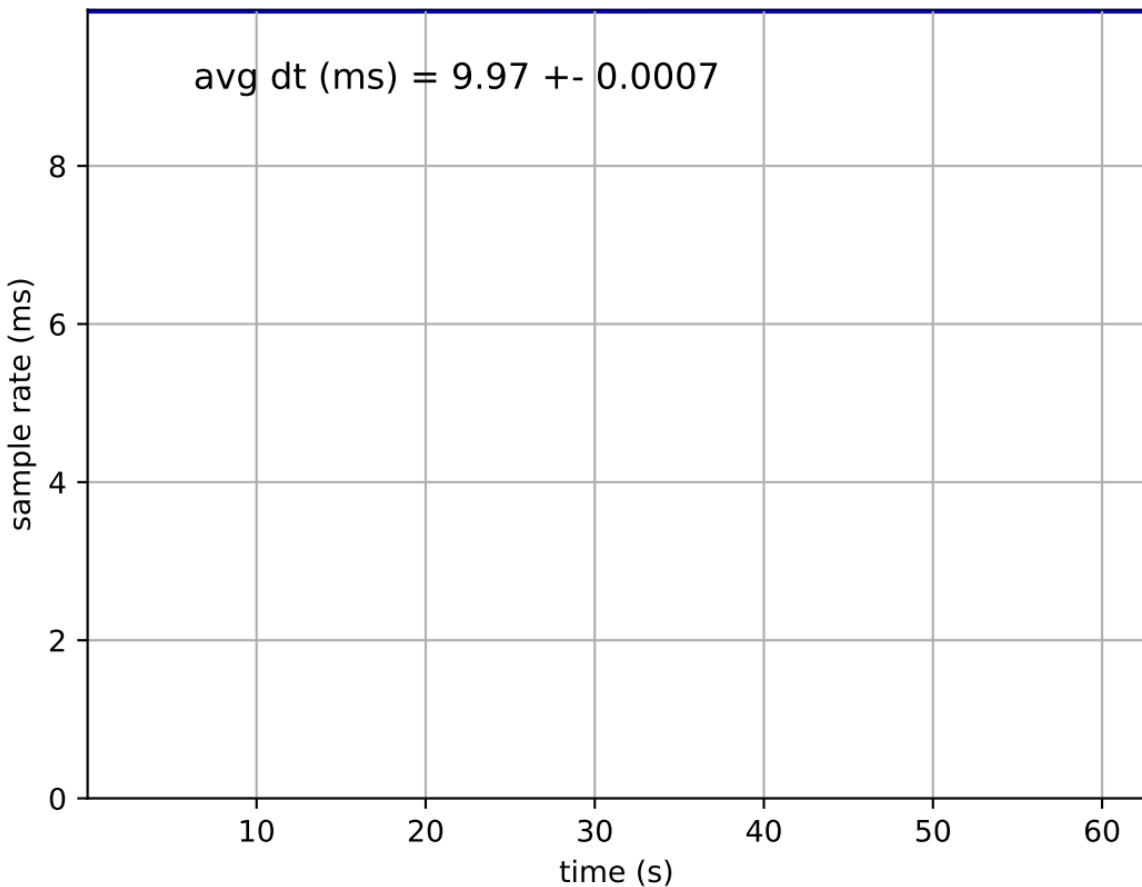
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

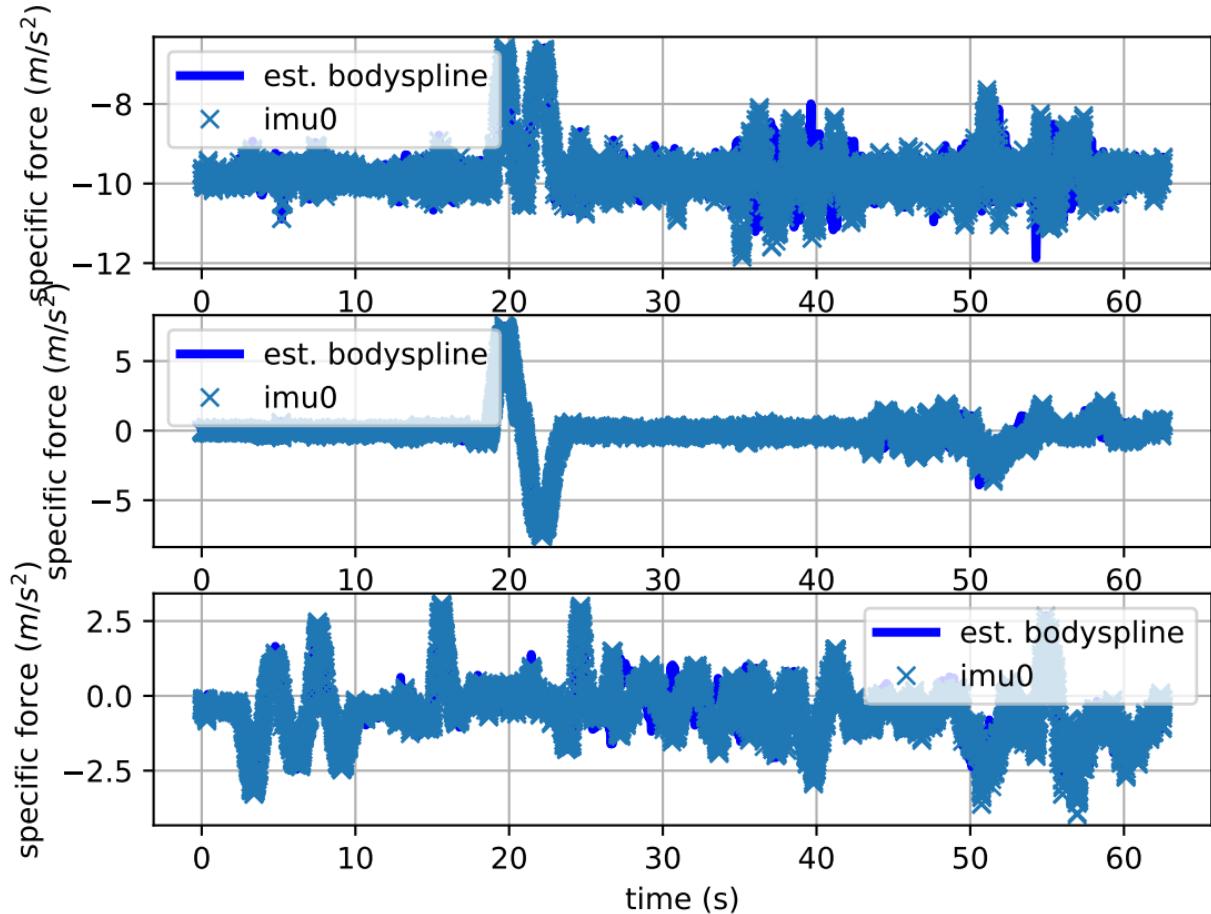
imu0: estimated poses



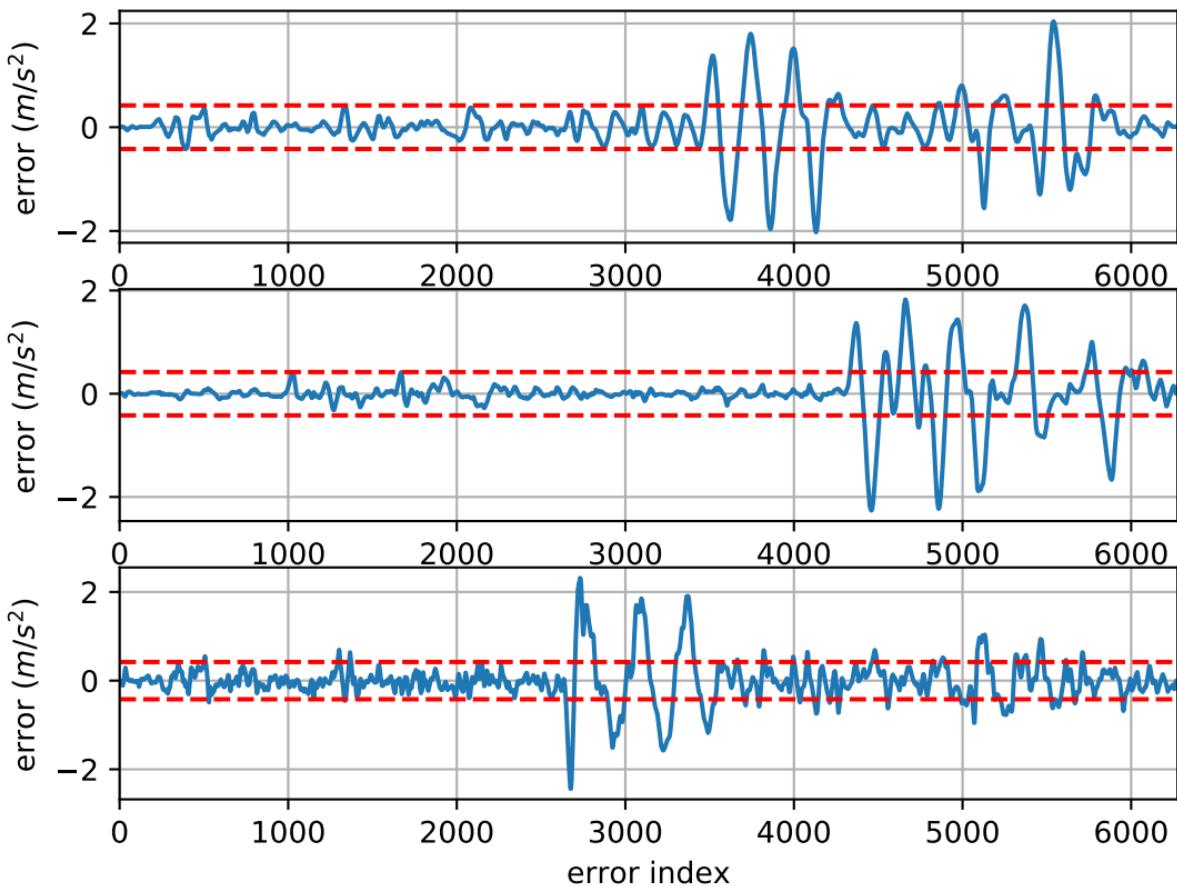
imu0: sample inertial rate



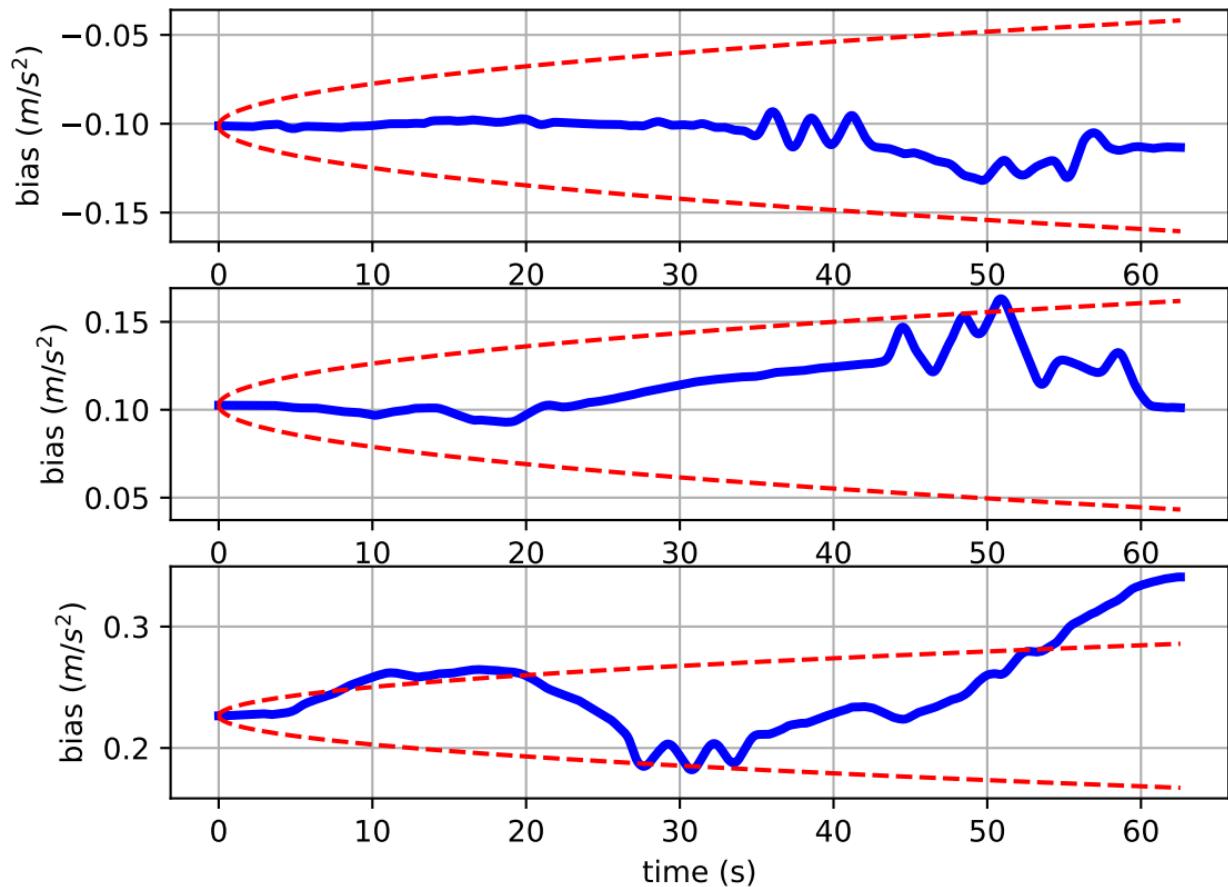
Comparison of predicted and measured specific force (imu0 frame)



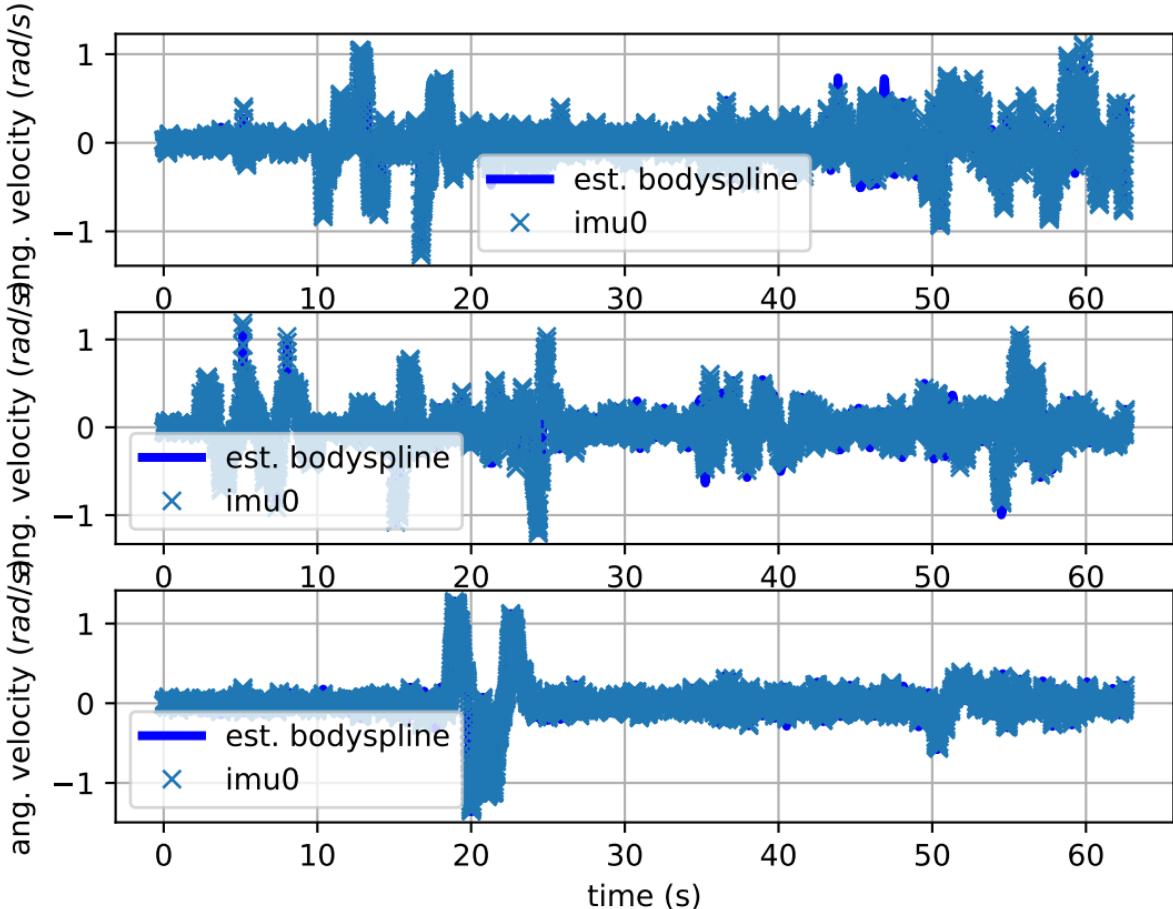
imu0: acceleration error



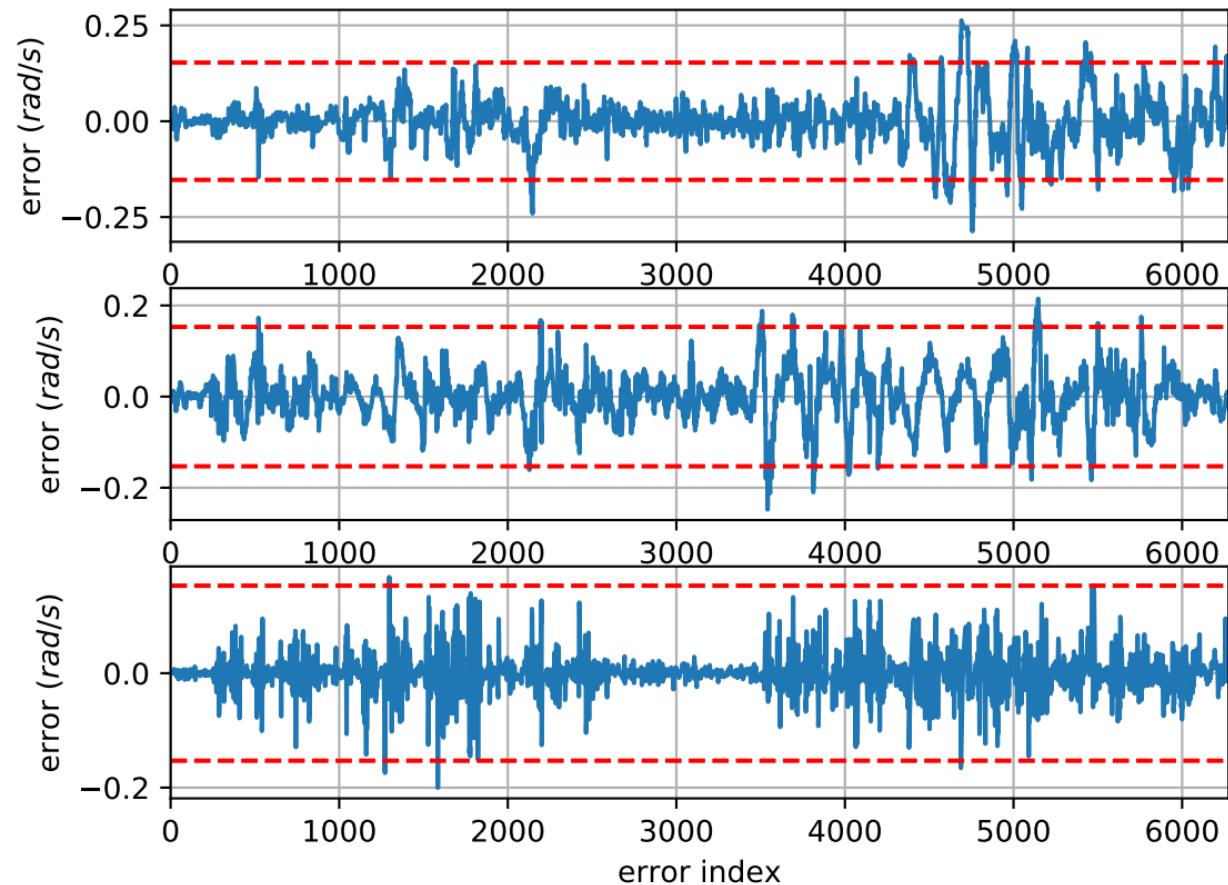
imu0: estimated accelerometer bias (imu frame)



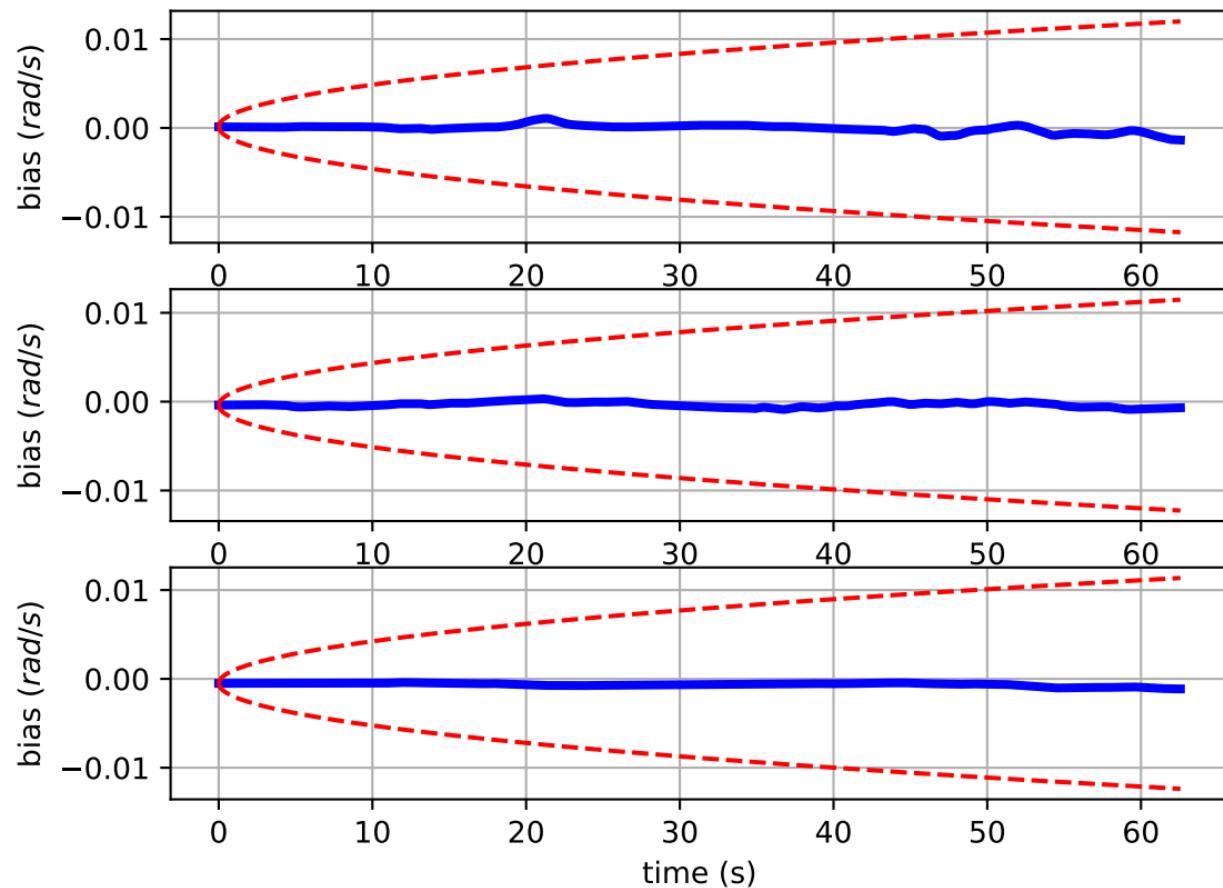
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

