

Calibration results

Normalized Residuals

Reprojection error (cam0): mean 12.763391205930555, median 12.665927011700804, std: 3.412445914746351

Gyroscope error (imu0): mean 1.3830620655542996, median 1.1150704315926618, std: 1.0188789011975696

Accelerometer error (imu0): mean 4.5472168409667875, median 2.806031195476166, std: 4.104746525079905

Residuals

Reprojection error (cam0) [px]: mean 12.763391205930555, median 12.665927011700804, std: 3.412445914746351

Gyroscope error (imu0) [rad/s]: mean 0.07063484694591442, median 0.05694815238670874, std:

0.052035521062222555

Accelerometer error (imu0) [m/s²]: mean 0.637500989229933, median 0.3933939650315376, std: 0.5754684814459418

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[ 0.01218509 -0.99987454  0.01012111  0.05898977]
 [-0.99960262 -0.01192322  0.02554304  0.08366663]
 [-0.02541916 -0.01042834 -0.99962249 -0.20944763]
 [ 0.          0.          0.          1.        ]]
```

T_ic: (cam0 to imu0):

```
[[ 0.01218509 -0.99960262 -0.02541916  0.0775906 ]
 [-0.99987454 -0.01192322 -0.01042834  0.05779575]
 [ 0.01012111  0.02554304 -0.99962249 -0.2121027 ]
 [ 0.          0.          0.          1.        ]]
```

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

0.03636299328470611

Gravity vector in target coords: [m/s²]

```
[ 0.10945665  9.77572522 -0.76918045]
```

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: 100.28

Accelerometer:

Noise density: 0.014

Noise density (discrete): 0.14019586299174452

Random walk: 0.0025

Gyroscope:

Noise density: 0.0051

Noise density (discrete): 0.051071350089849796

Random walk: 0.0005

T_ib (imu0 to imu0)

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

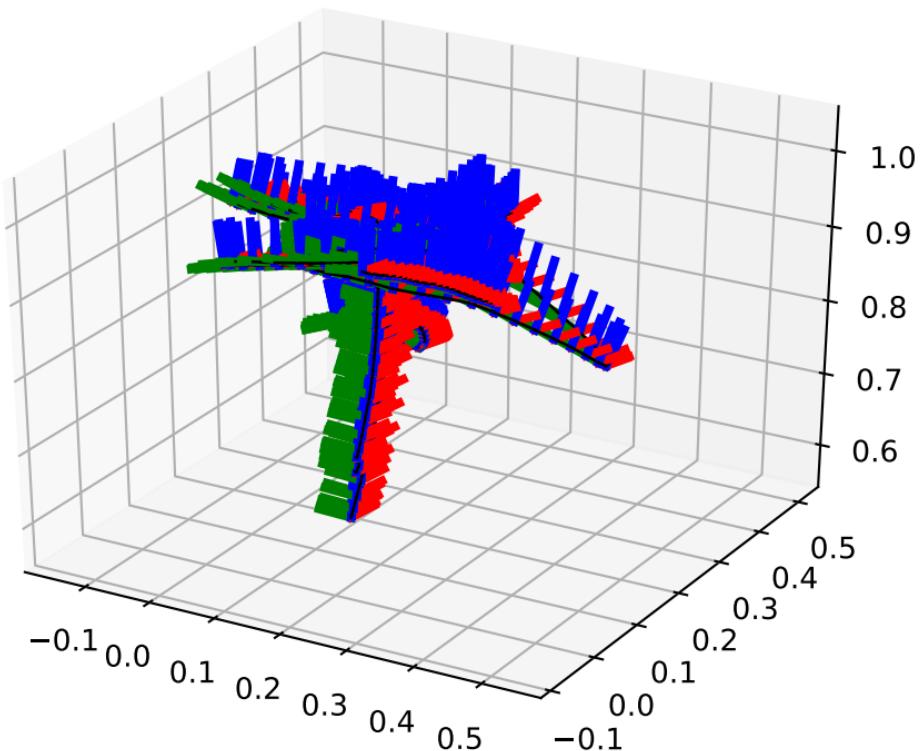
[0. 1. 0. 0.]

[0. 0. 1. 0.]

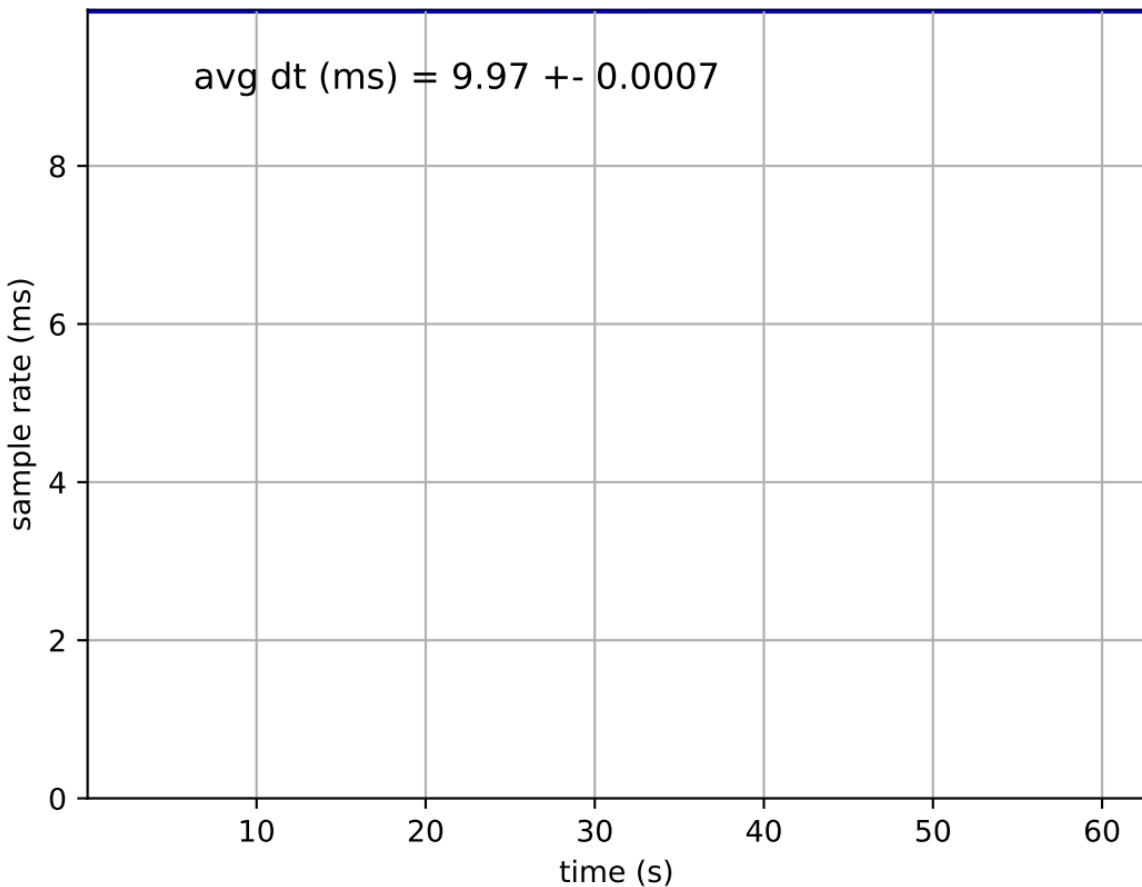
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

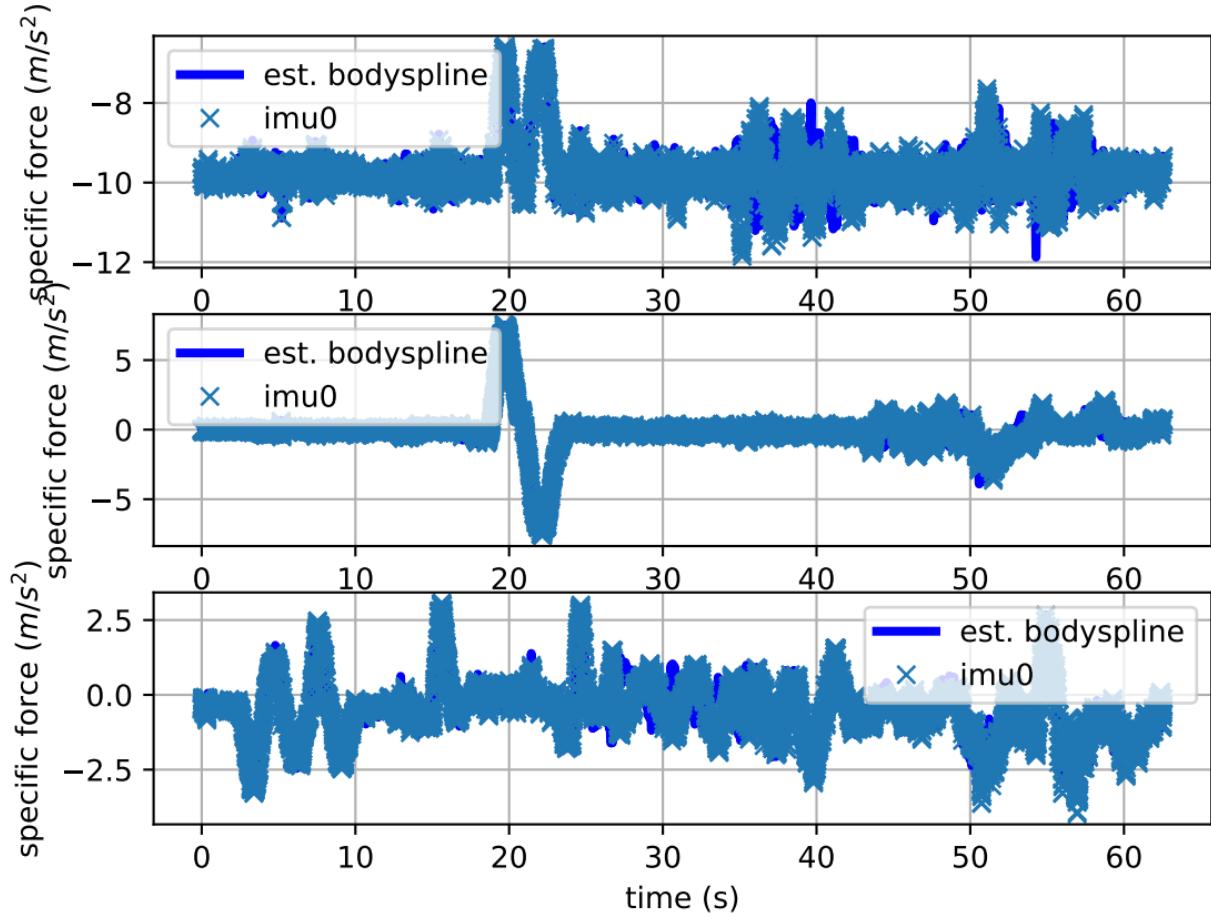
imu0: estimated poses



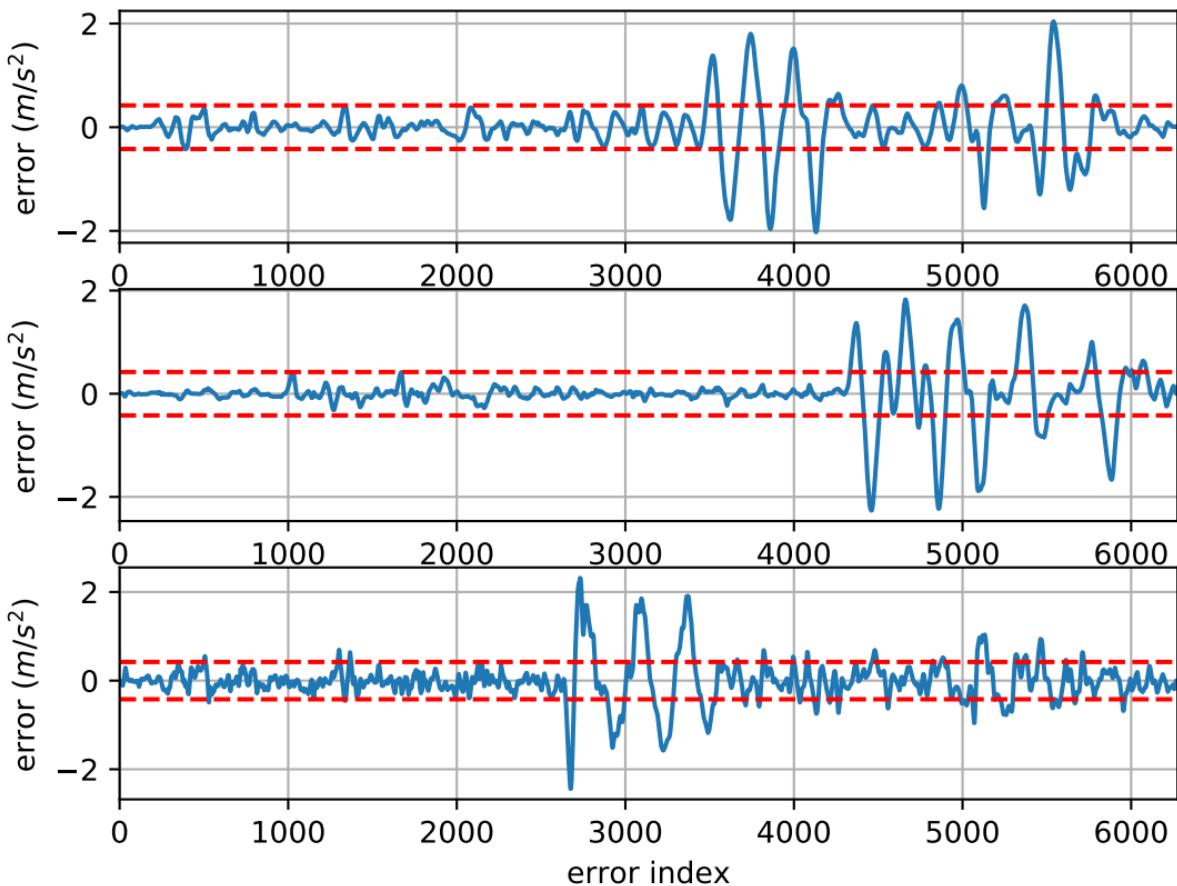
imu0: sample inertial rate



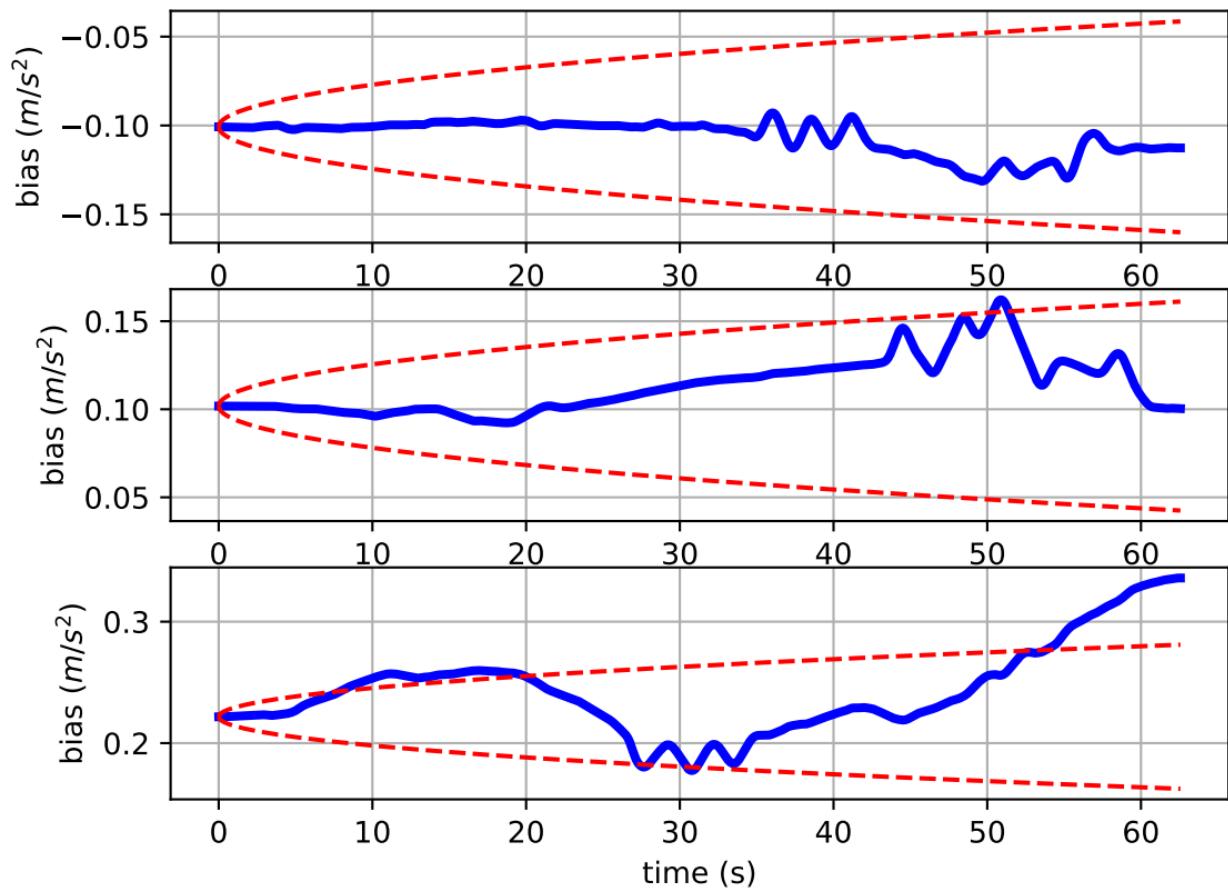
Comparison of predicted and measured specific force (imu0 frame)



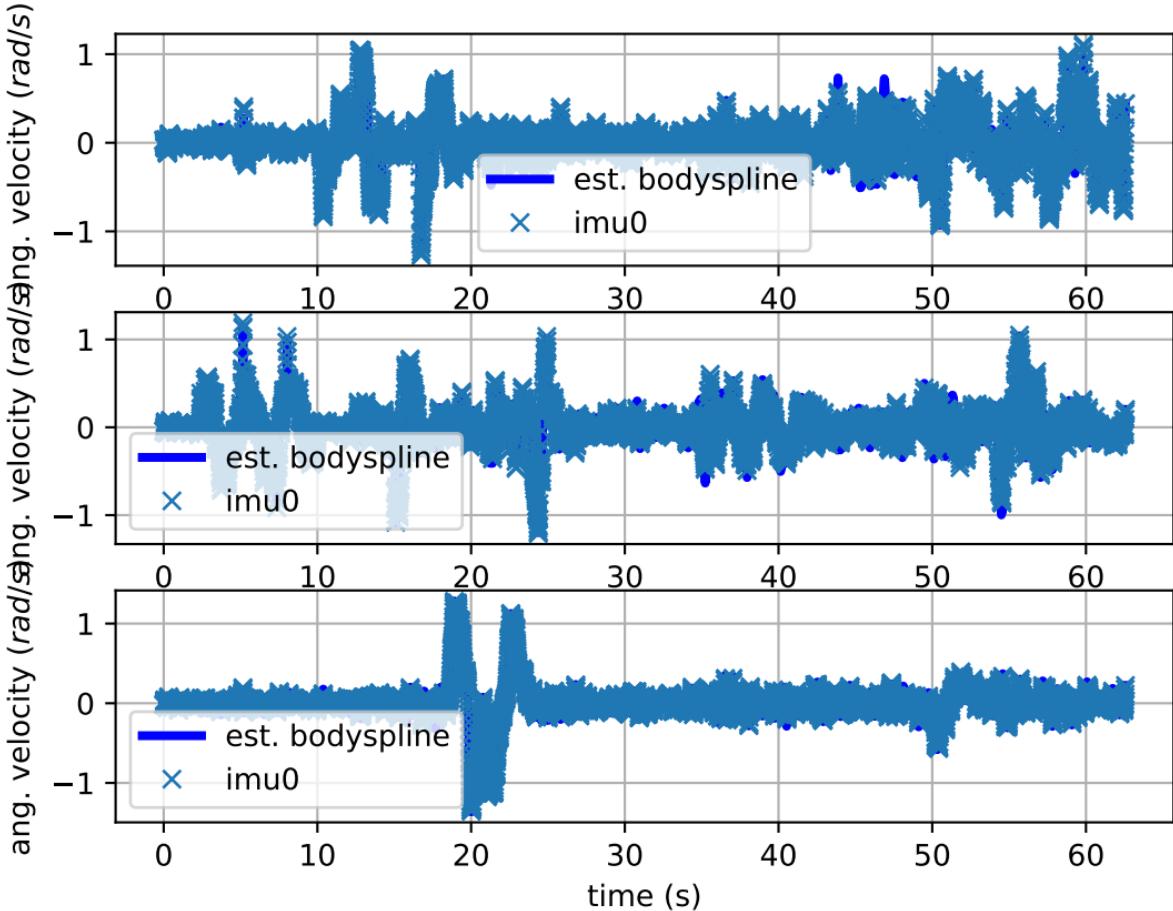
imu0: acceleration error



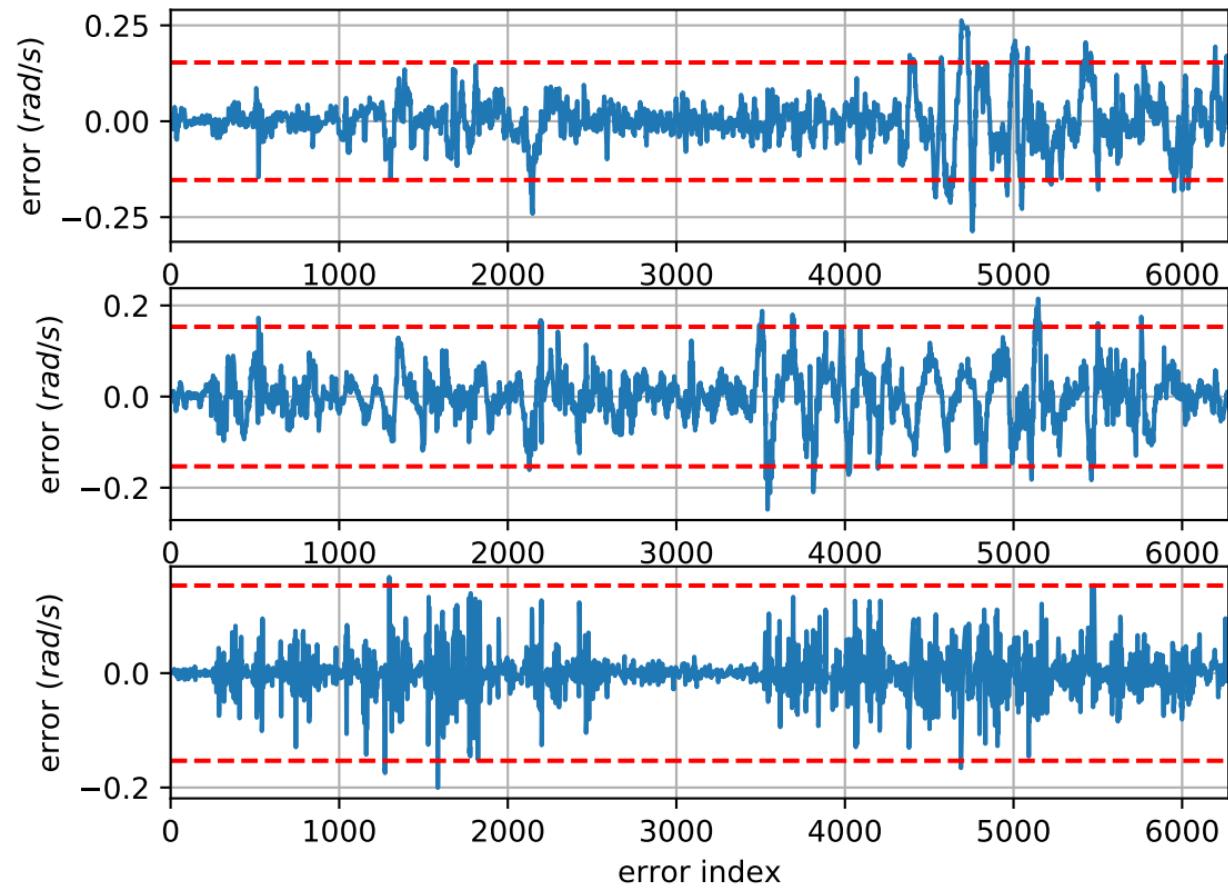
imu0: estimated accelerometer bias (imu frame)



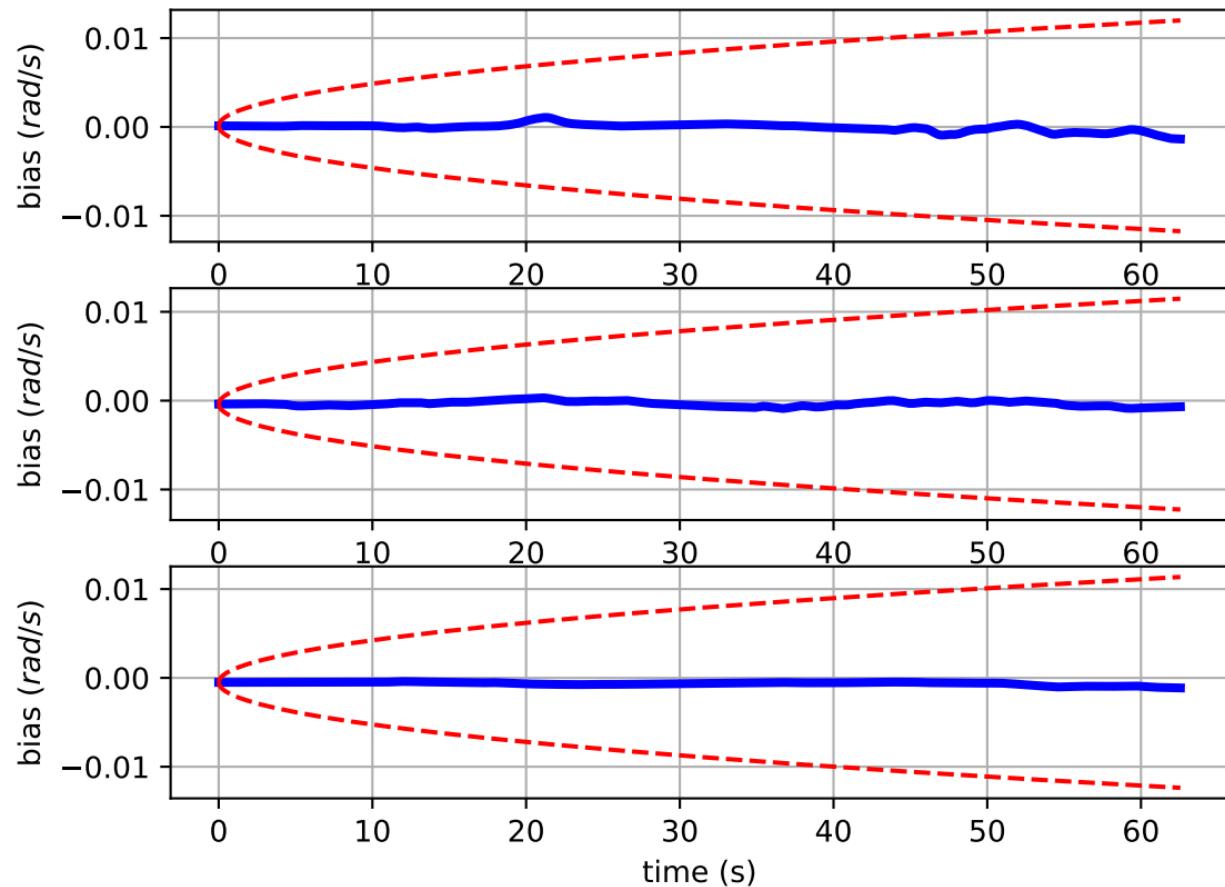
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

