

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.19889113381606396, median 0.17971300044139793, std: 0.11928975199118981
Gyroscope error (imu0): mean 6.52176737607291e-10, median 1.7307584460783717e-10, std: 3.828593192204729e-09
Accelerometer error (imu0): mean 2.0250720015153477e-11, median 3.917889891624051e-12, std: 2.2057284200899295e-10

Residuals

Reprojection error (cam0) [px]: mean 0.19889113381606396, median 0.17971300044139793, std: 0.11928975199118981
Gyroscope error (imu0) [rad/s]: mean 5.974371163203574e-13, median 1.5854894470259396e-13, std: 3.5072451138112687e-12
Accelerometer error (imu0) [m/s²]: mean 4.008094179098086e-11, median 7.754426340009115e-12, std: 4.3656557567425643e-10

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[ 0.01374352 -0.99990536 -0.0006253 -0.00003017]
 [-0.01339119 0.00044124 -0.99991024 -0.00002936]
 [ 0.99981588 0.01375066 -0.01338386 -0.00002147]
 [ 0. 0. 0. 1. ]]
```

T_ic: (cam0 to imu0):

```
[[ 0.01374352 -0.01339119 0.99981588 0.00002149]
 [-0.99990536 0.00044124 0.01375066 -0.00002986]
 [-0.0006253 -0.99991024 -0.01338386 -0.00002966]
 [ 0. 0. 0. 1. ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
-0.021908882533498014

Gravity vector in target coords: [m/s²]
[-0.11038927 -8.02562606 -5.63432014]

Calibration configuration

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cam0

Camera model: pinhole

Focal length: [1363.2422231108726, 1361.4074814955884]

Principal point: [970.6851675945837, 610.5736454245764]

Distortion model: radtan

Distortion coefficients: [-0.13916362898546825, 0.08060521570666526, 0.0006457425502729712,
7.411710934559994e-05]

Type: aprilgrid

Tags:

Rows: 8

Cols: 6

Size: 0.041 [m]

Spacing 0.012000700000000001 [m]

IMU configuration

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IMU0:

Model: calibrated

Update rate: 45

Accelerometer:

Noise density: 0.2950469921720662

Noise density (discrete): 1.979235393160765

Random walk: 0.0013536900467118916

Gyroscope:

Noise density: 0.0001365909789882633

Noise density (discrete): 0.000916066277543473

Random walk: 1.2075750087775763e-06

T_ib (imu0 to imu0)

[[1. 0. 0. 0.]

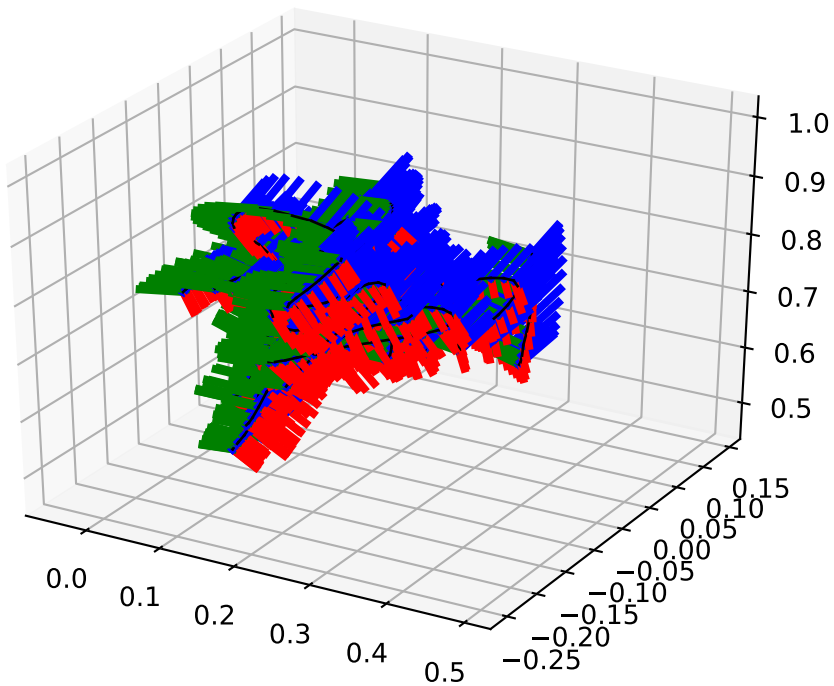
[0. 1. 0. 0.]

[0. 0. 1. 0.]

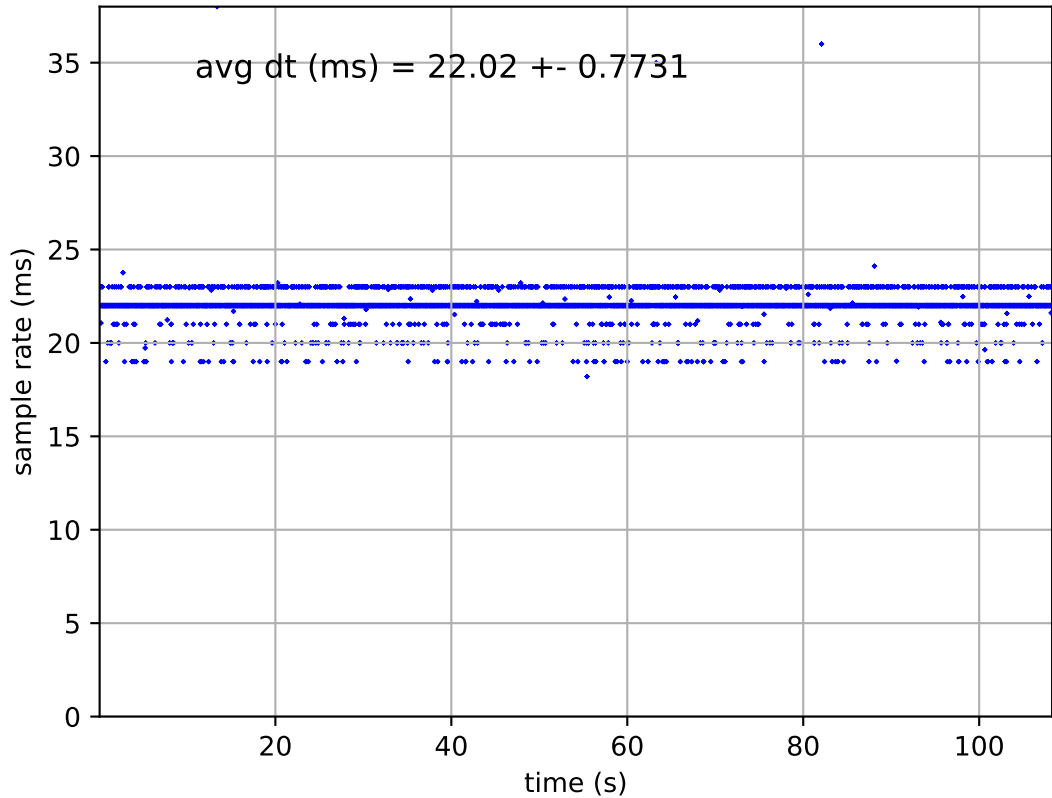
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

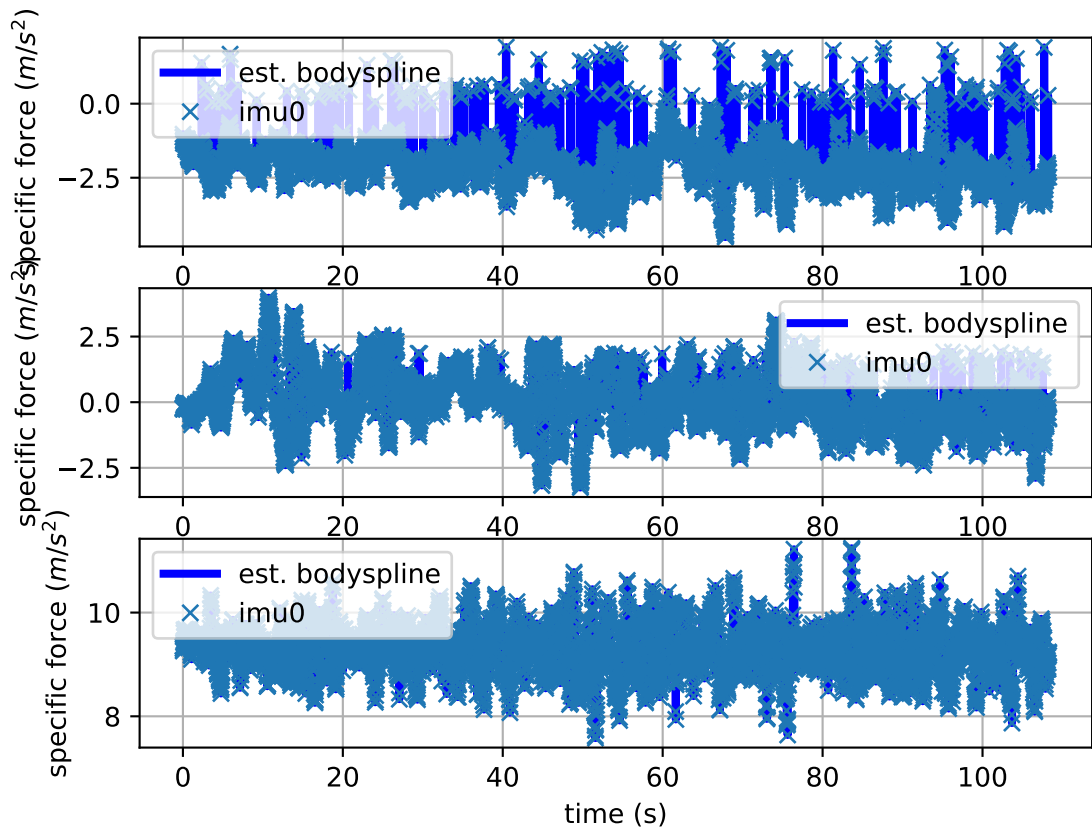
imu0: estimated poses



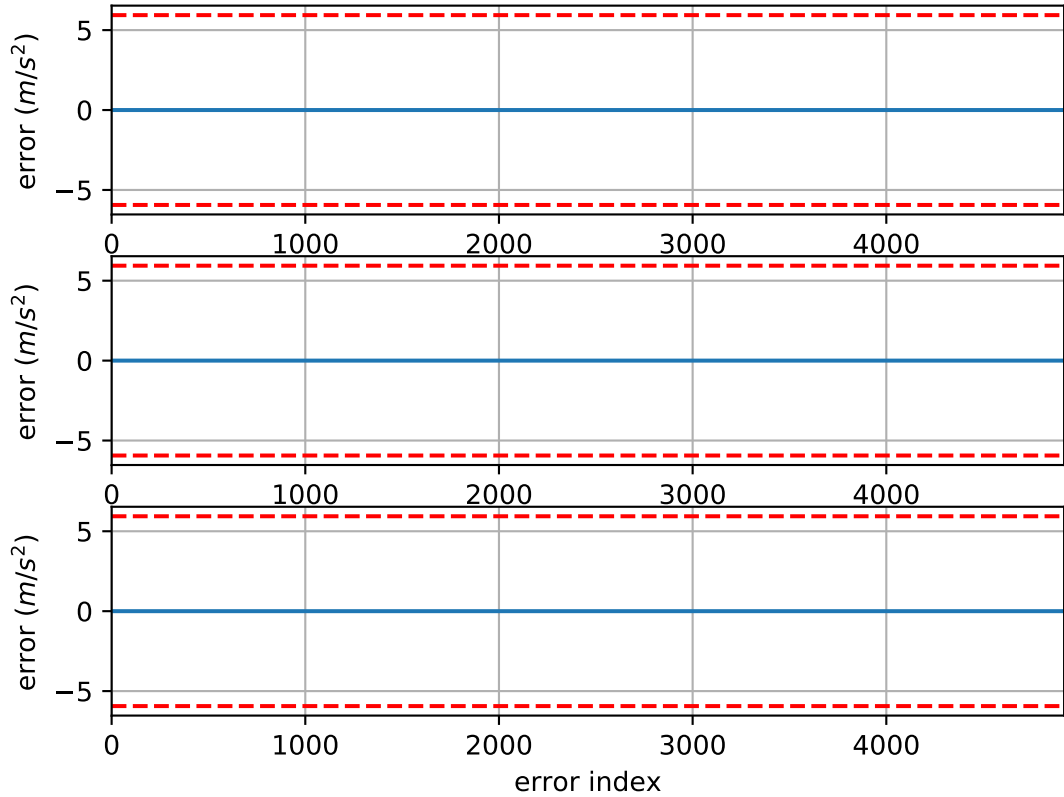
imu0: sample inertial rate



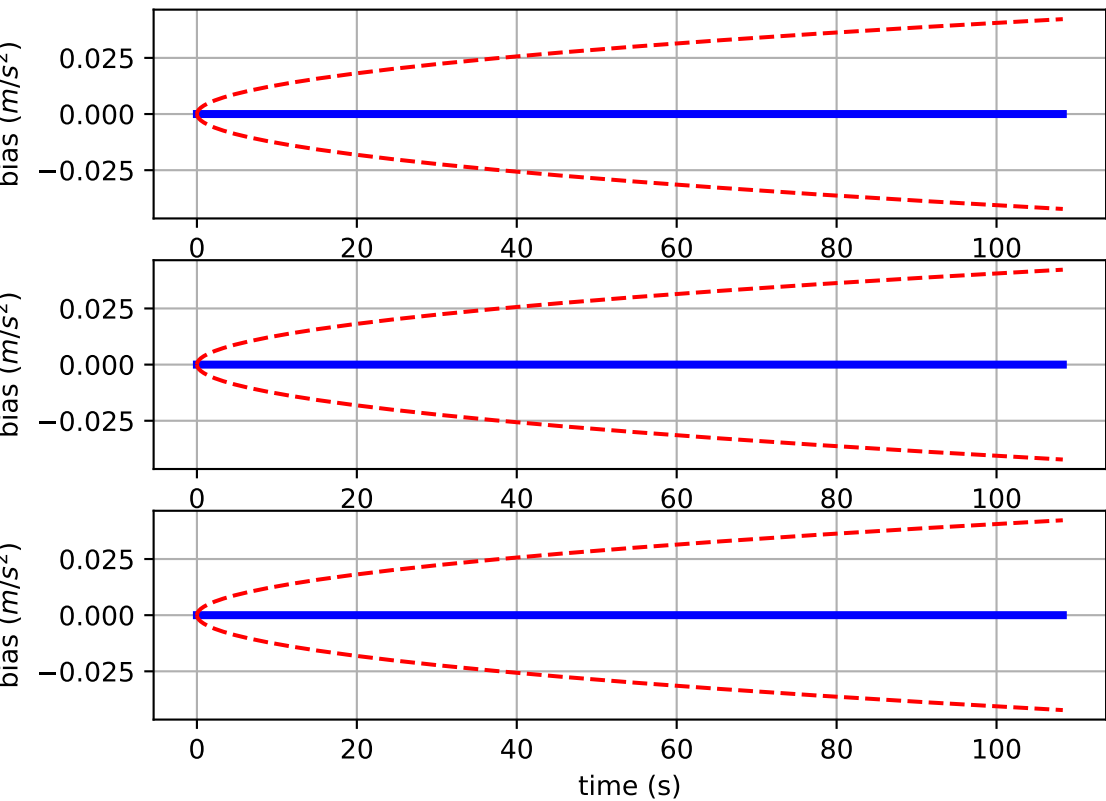
Comparison of predicted and measured specific force (imu0 frame)



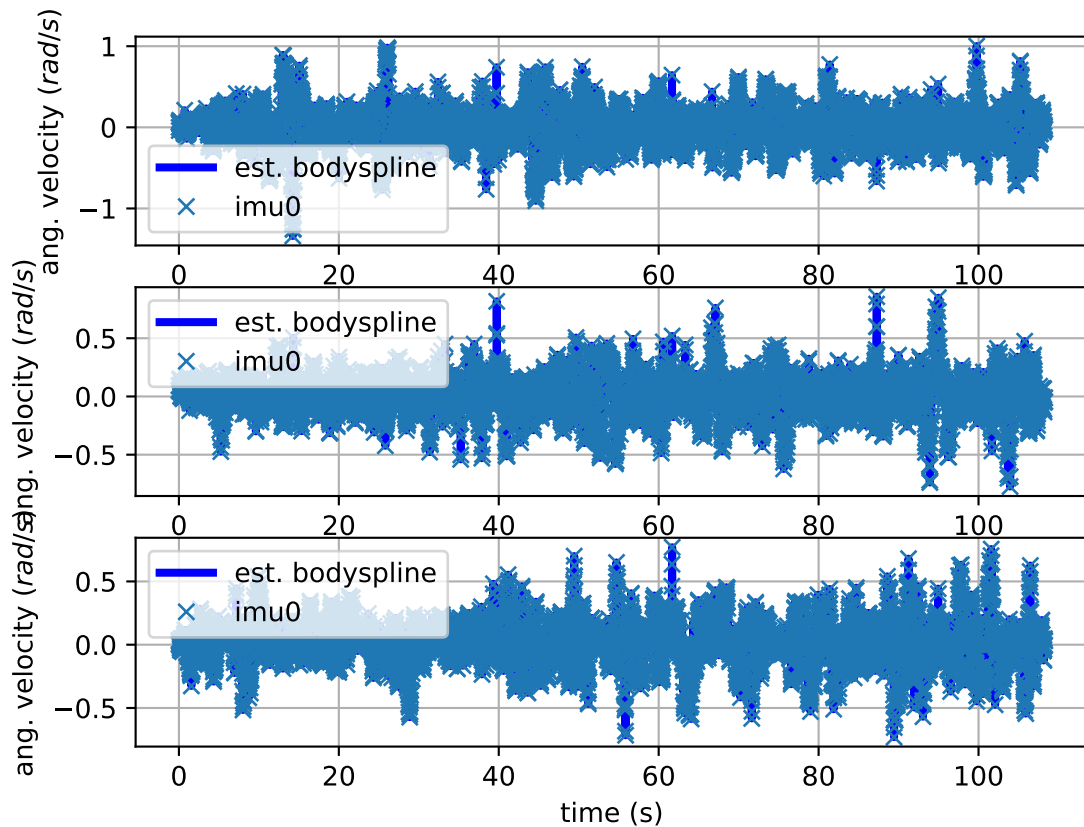
imu0: acceleration error



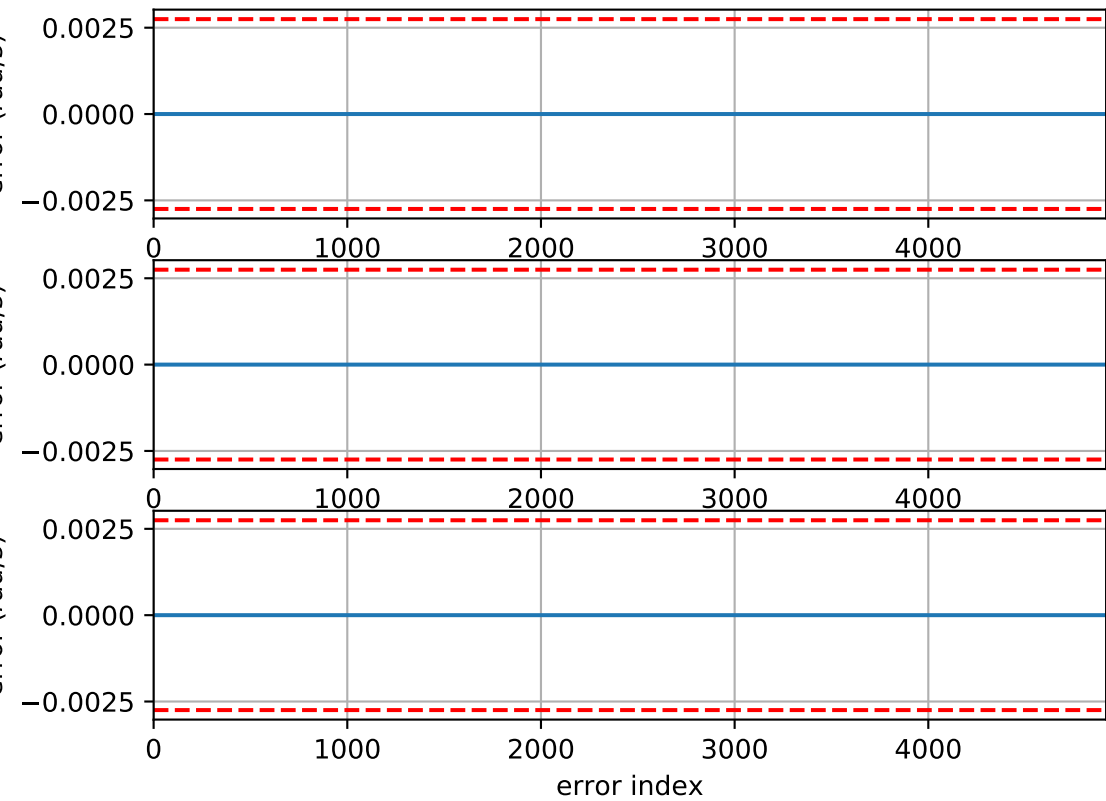
imu0: estimated accelerometer bias (imu frame)



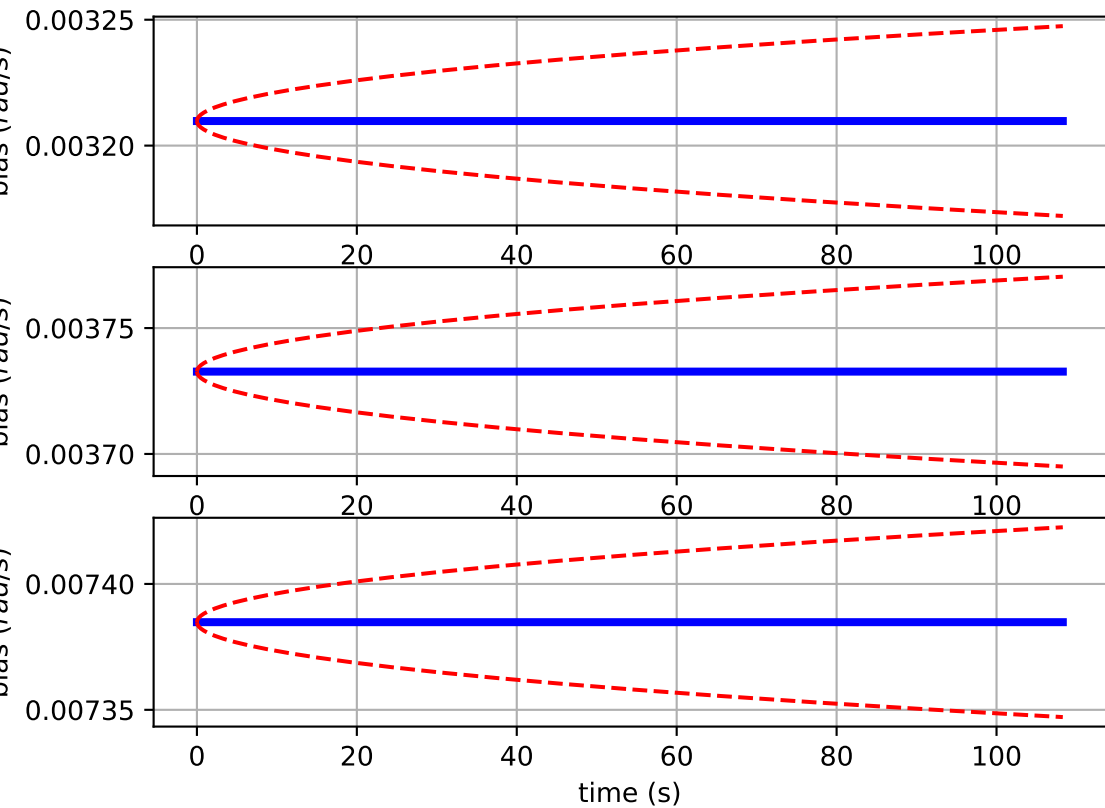
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

