

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.9636449149800216, median 0.7609756045271983, std: 0.7468461912975807
Gyroscope error (imu0): mean 3.150741835498185, median 2.80902840927942, std: 2.0930817173652922
Accelerometer error (imu0): mean 2.088231434501006, median 1.6305300620780163, std: 1.6210970086298837

Residuals

Reprojection error (cam0) [px]: mean 0.9636449149800216, median 0.7609756045271983, std: 0.7468461912975807
Gyroscope error (imu0) [rad/s]: mean 0.276911071949382, median 0.24687870621010133, std: 0.1839558847707472
Accelerometer error (imu0) [m/s²]: mean 0.07037048213037986, median 0.054946585278238695, std: 0.05462870455479994

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[[-0.26800681 0.95576049 -0.12121976 0.34365608]
 [ 0.79429383 0.29041006 0.53362844 -0.58104977]
 [ 0.54522442 0.04673195 -0.83698653 0.11096242]
 [ 0.      0.      0.      1.      ]]
```

T_ic: (cam0 to imu0):

```
[[[-0.26800681 0.79429383 0.54522442 0.49312699]
 [ 0.95576049 0.29041006 0.04673195 -0.1648957 ]
 [-0.12121976 0.53362844 -0.83698653 0.44459664]
 [ 0.      0.      0.      1.      ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
-0.04036013561890319

Gravity vector in target coords: [m/s²]
[-5.44247206 1.2940873 -8.05439376]

Calibration configuration

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cam0

Camera model: pinhole

Focal length: [723.8666745706989, 726.821998039784]

Principal point: [321.1721901213624, 160.84603758249207]

Distortion model: radtan

Distortion coefficients: [0.36261619267439066, -1.4153139694196566, -0.003438440763239287, 0.0032504558613163]

Type: checkerboard

Rows

Count: 9

Distance: 0.024 [m]

Cols

Count: 6

Distance: 0.024 [m]

IMU configuration

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IMU0:

Model: calibrated

Update rate: 100.0

Accelerometer:

Noise density: 0.0033698603022511864

Noise density (discrete): 0.03369860302251186

Random walk: 8.573760135961954e-05

Gyroscope:

Noise density: 0.008788757899156717

Noise density (discrete): 0.08788757899156717

Random walk: 0.0004973868752312219

T_ib (imu0 to imu0)

[[1. 0. 0. 0.]

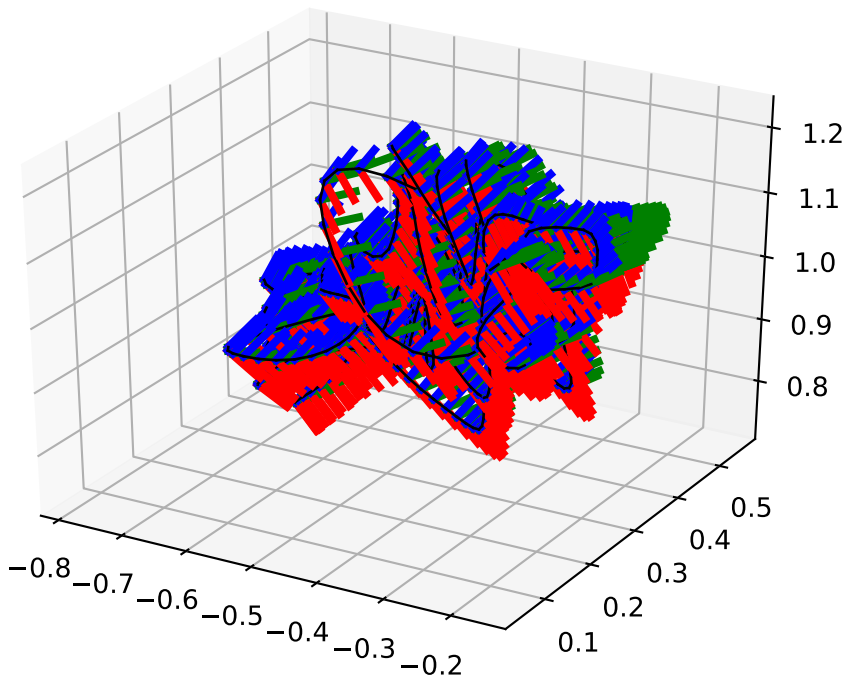
[0. 1. 0. 0.]

[0. 0. 1. 0.]

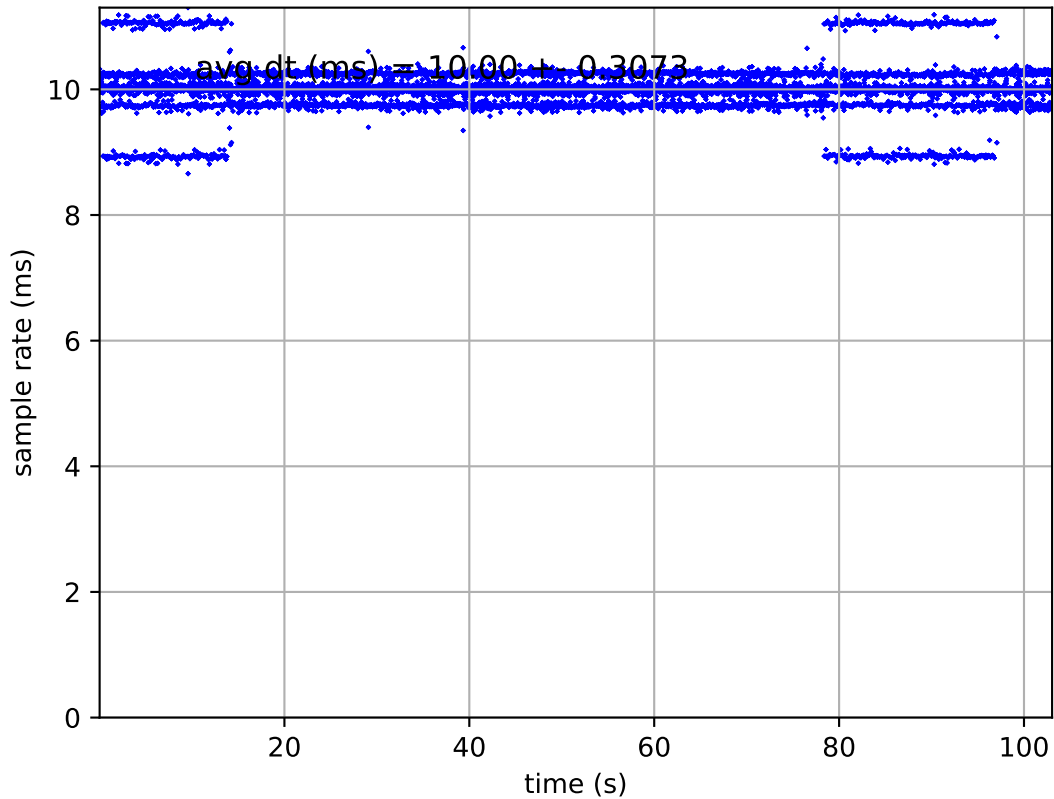
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

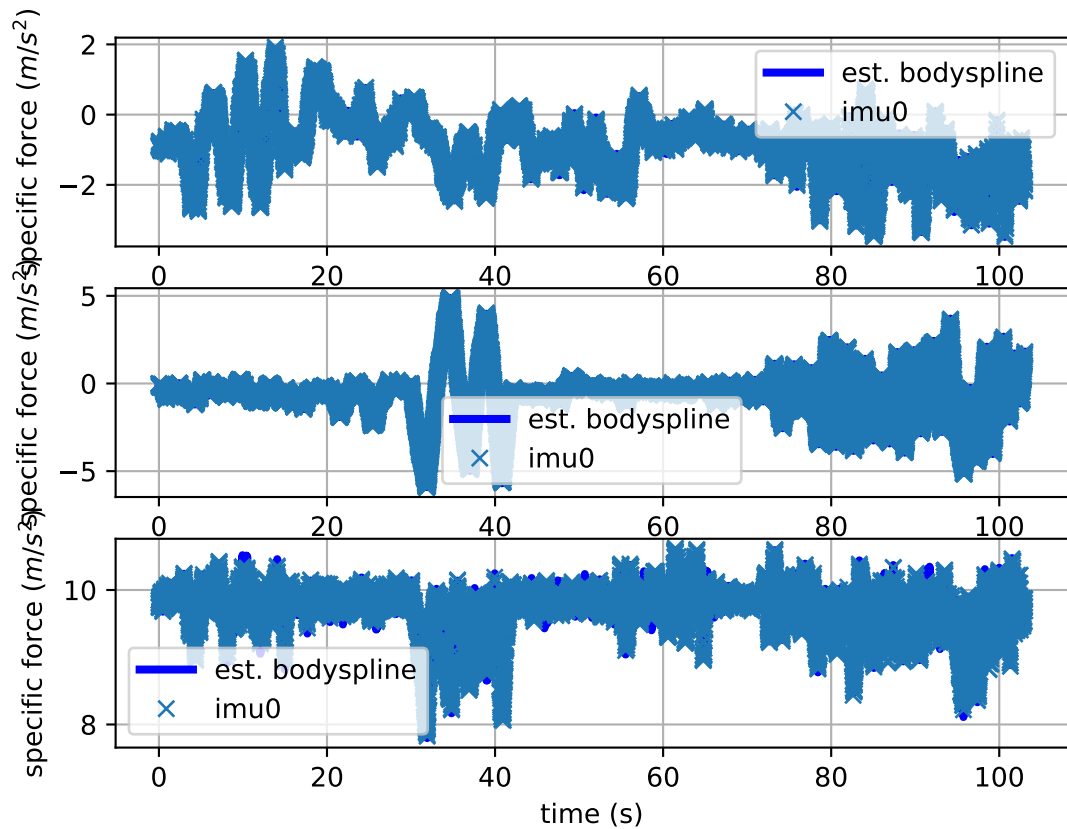
imu0: estimated poses



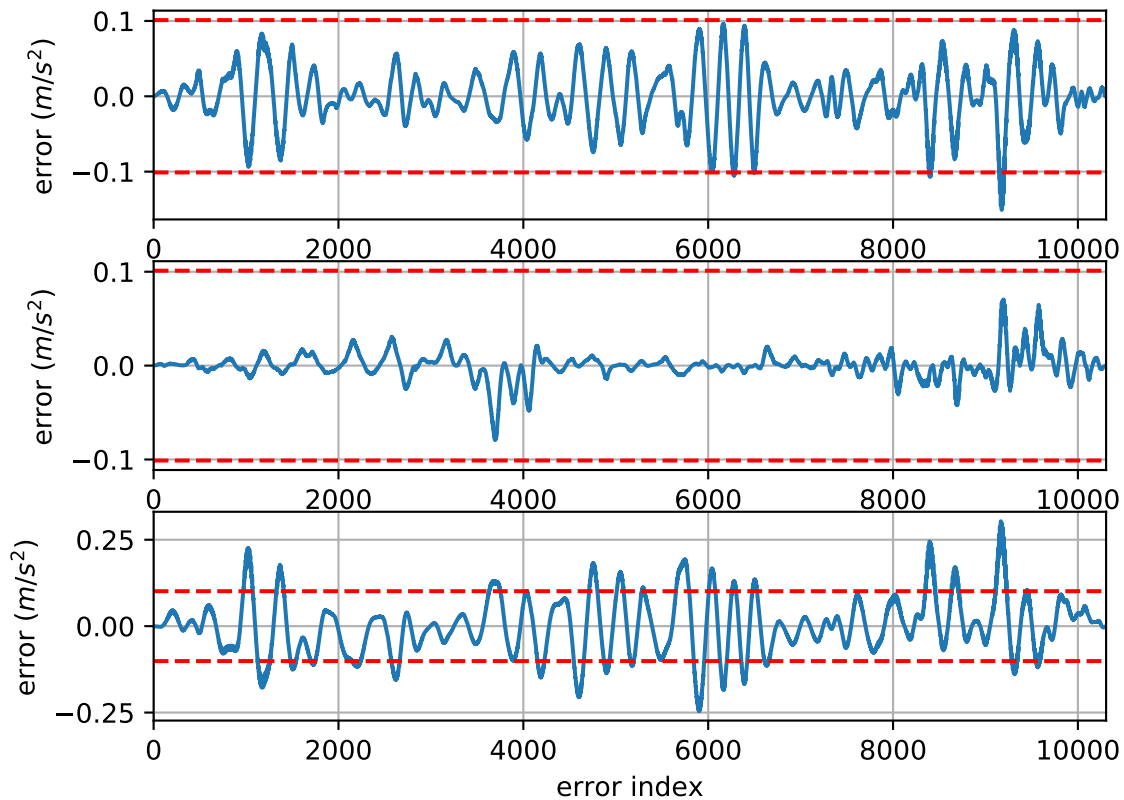
imu0: sample inertial rate



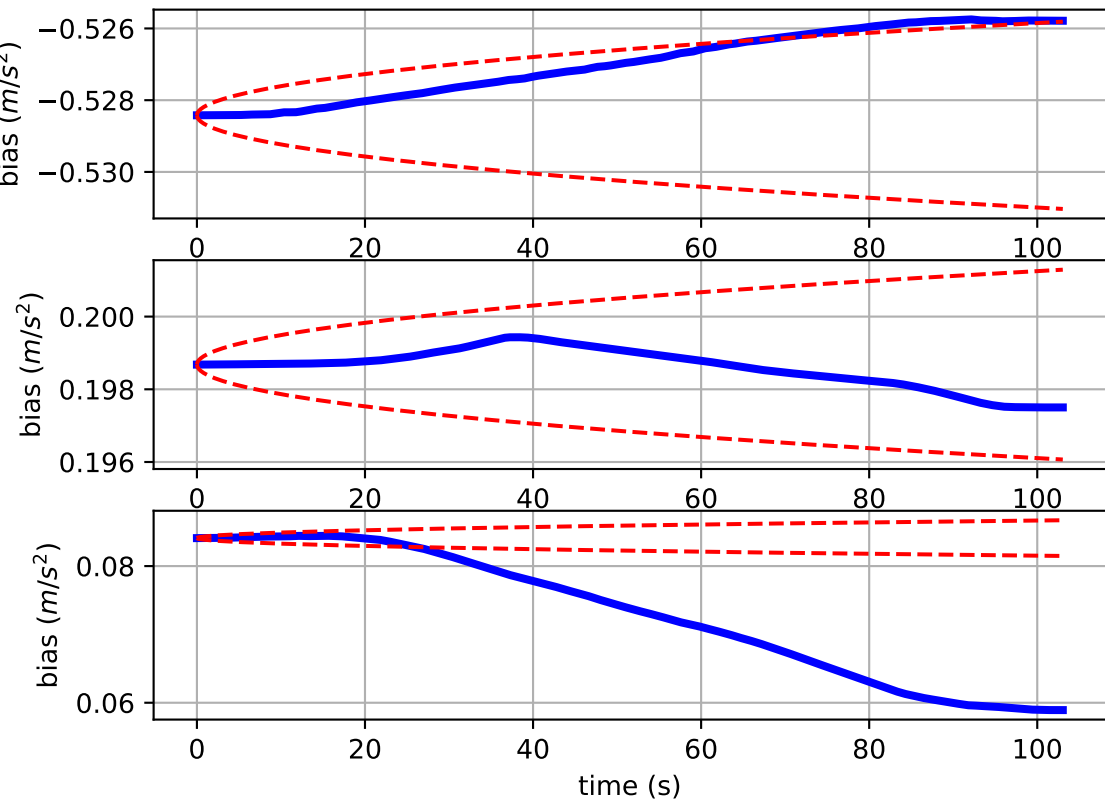
Comparison of predicted and measured specific force (imu0 frame)



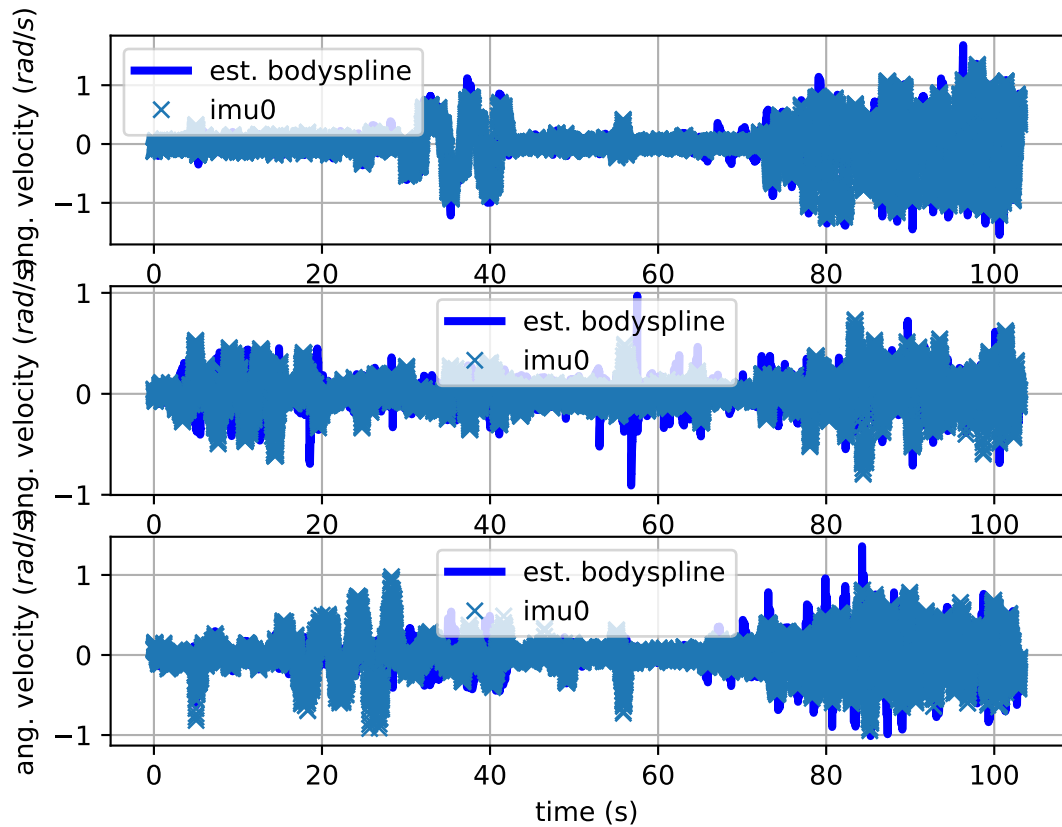
imu0: acceleration error



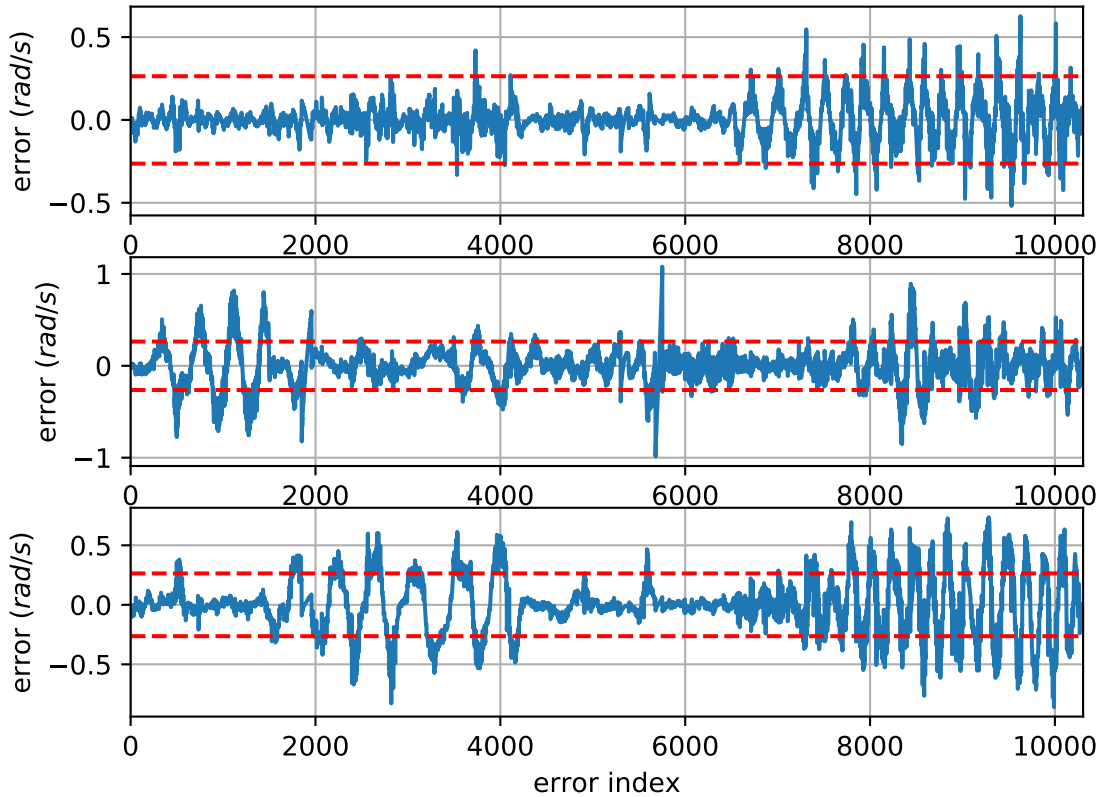
imu0: estimated accelerometer bias (imu frame)



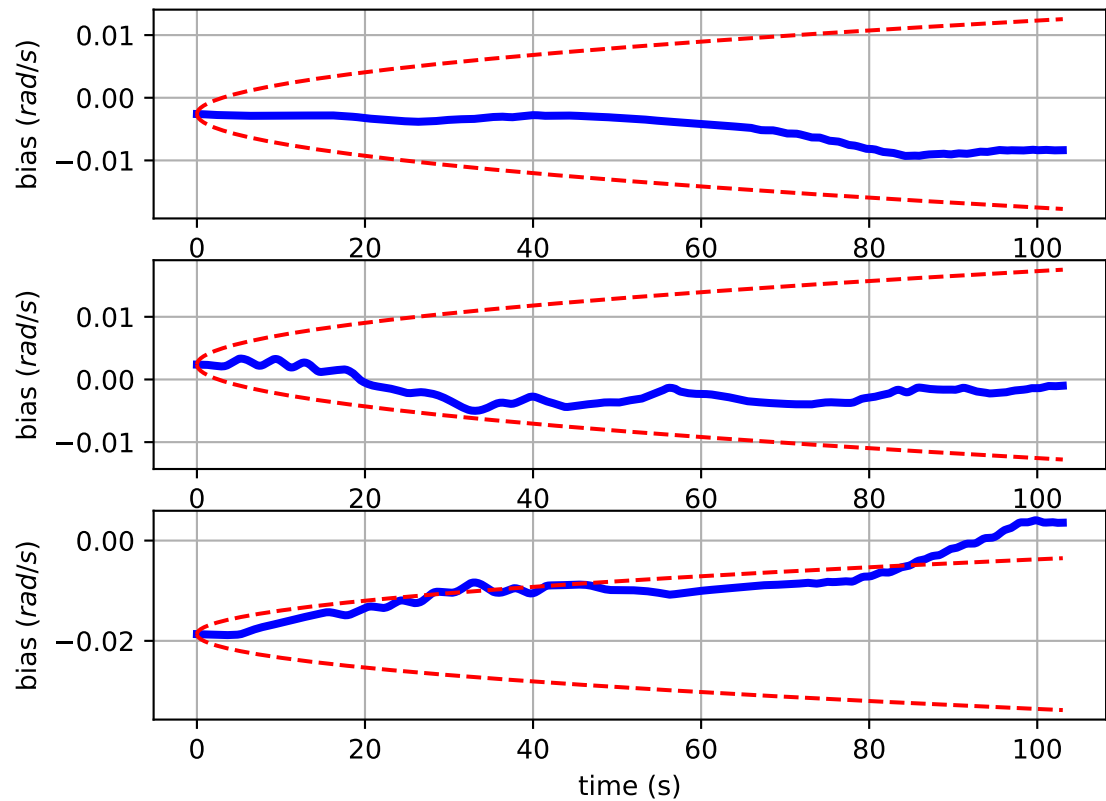
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

