

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.384116248899, median 0.268006837533, std: 0.362278338086
Gyroscope error (imu0): mean 0.262347224076, median 0.212546073298, std: 0.242712663011
Accelerometer error (imu0): mean 0.683417936361, median 0.575476897695, std: 0.468789904816

Residuals

Reprojection error (cam0) [px]: mean 0.384116248899, median 0.268006837533, std: 0.362278338086
Gyroscope error (imu0) [rad/s]: mean 0.0339732893966, median 0.0275241687184, std: 0.0314306643408
Accelerometer error (imu0) [m/s²]: mean 0.533889111363, median 0.449565095052, std: 0.36622074485

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[ 0.02707878 -0.98731067 -0.15647484 0.09122481]
 [-0.9995596 -0.02484228 -0.01623146 0.24059377]
 [ 0.0121383  0.15684546 -0.98754856 0.00915147]
 [ 0.         0.         0.         1.         ]]
```

T_ic: (cam0 to imu0):

```
[[ 0.02707878 -0.9995596  0.0121383  0.23790647]
 [-0.98731067 -0.02484228  0.15684546  0.09460876]
 [-0.15647484 -0.01623146 -0.98754856  0.0272171 ]
 [ 0.         0.         0.         1.         ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
-0.046517855578

Gravity vector in target coords: [m/s²]
[-0.00930568 -0.07246551 9.80627784]

Calibration configuration

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cam0

Camera model: pinhole

Focal length: [767.1669951294108, 867.8924850924478]

Principal point: [355.32765901819863, 214.07856905434784]

Distortion model: radtan

Distortion coefficients: [-0.40388686515510114, 0.18409260606548622, 0.0006210690356052475,
-0.0016593774658634388]

Type: aprilgrid

Tags:

Rows: 6

Cols: 6

Size: 0.088 [m]

Spacing 0.0264 [m]

IMU configuration

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IMU0:

Model: calibrated

Update rate: 400.0

Accelerometer:

Noise density: 0.03906022091

Noise density (discrete): 0.7812044182

Random walk: 0.00167693365

Gyroscope:

Noise density: 0.00647487114

Noise density (discrete): 0.1294974228

Random walk: 0.00022285859

T_ib (imu0 to imu0)

[[1. 0. 0. 0.]

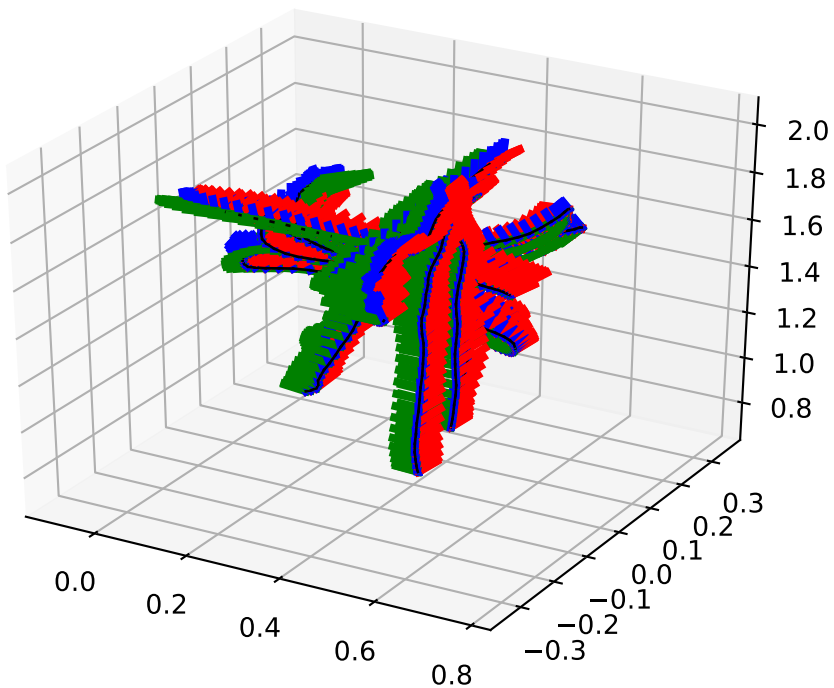
[0. 1. 0. 0.]

[0. 0. 1. 0.]

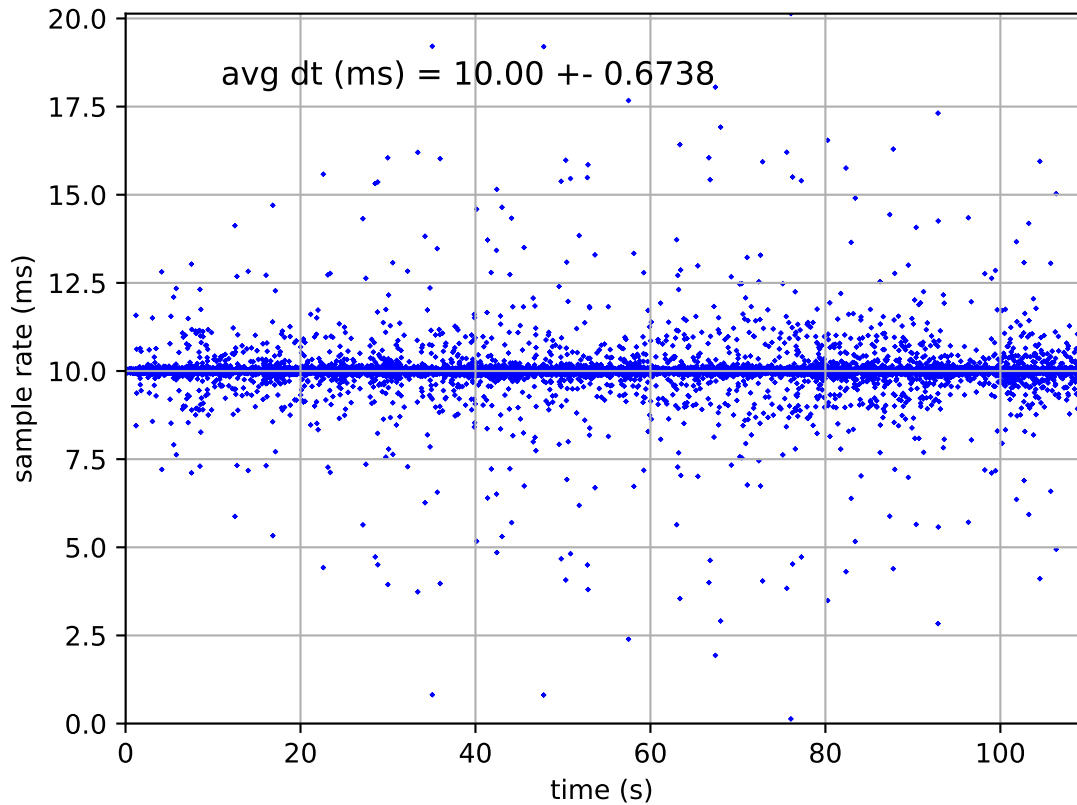
[0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

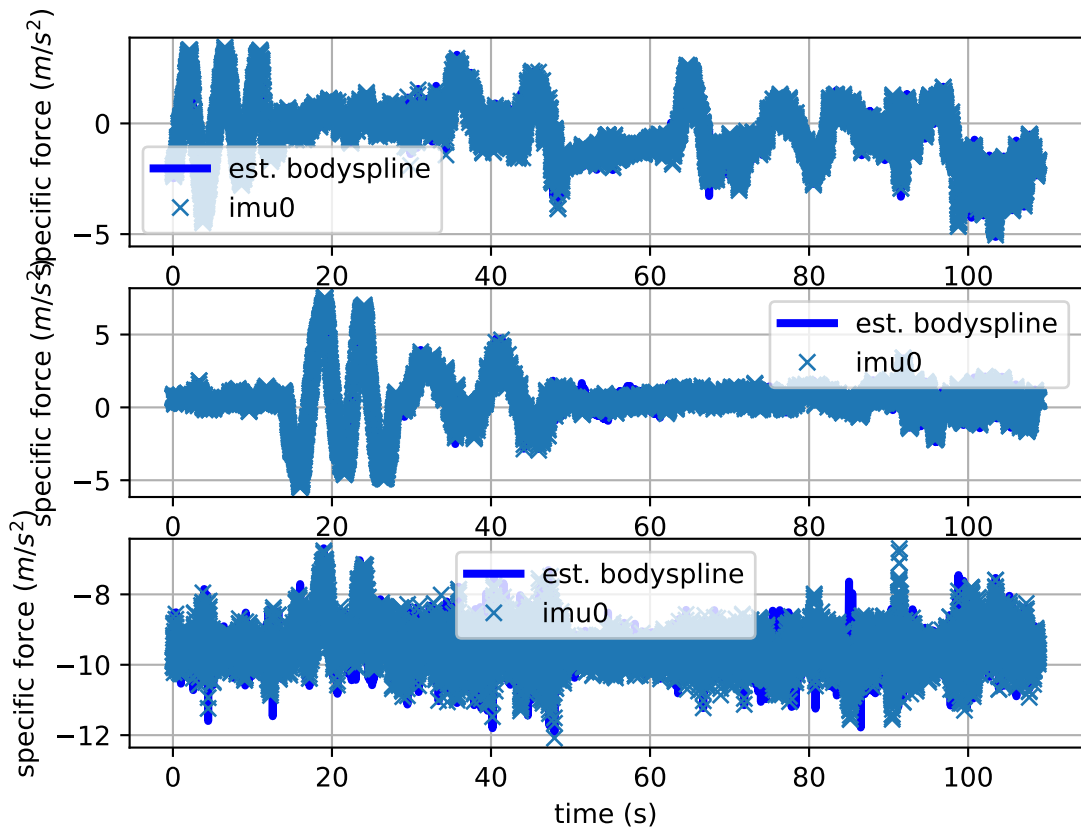
imu0: estimated poses



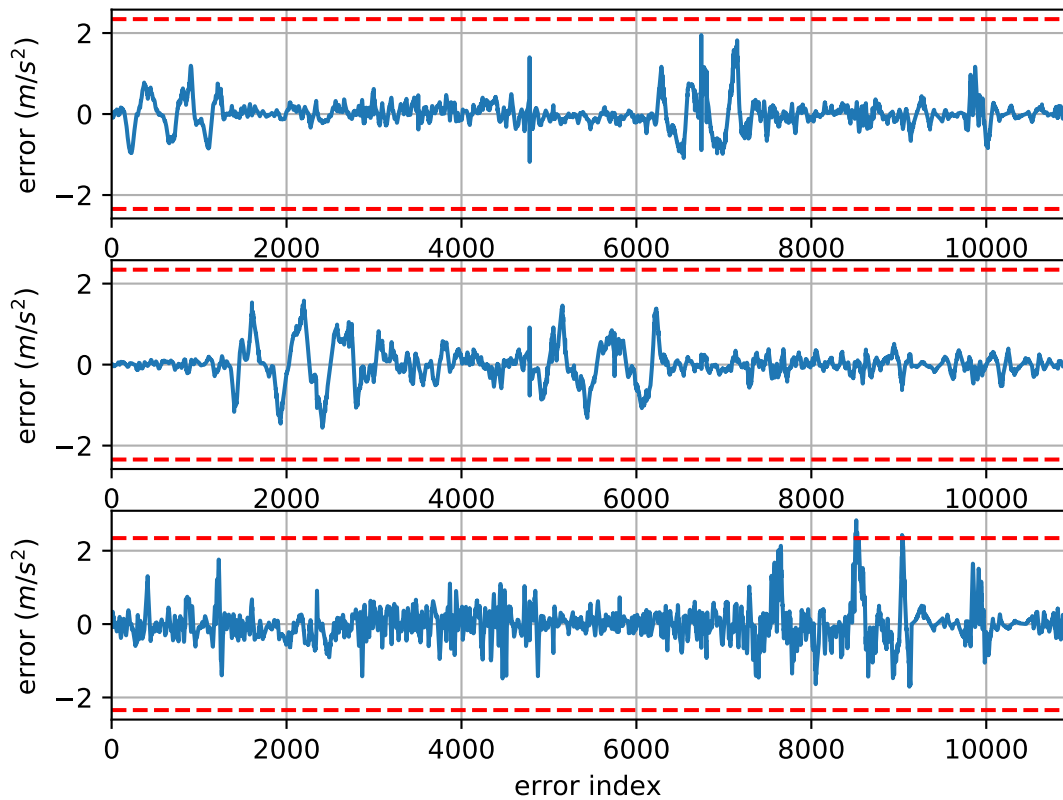
imu0: sample inertial rate



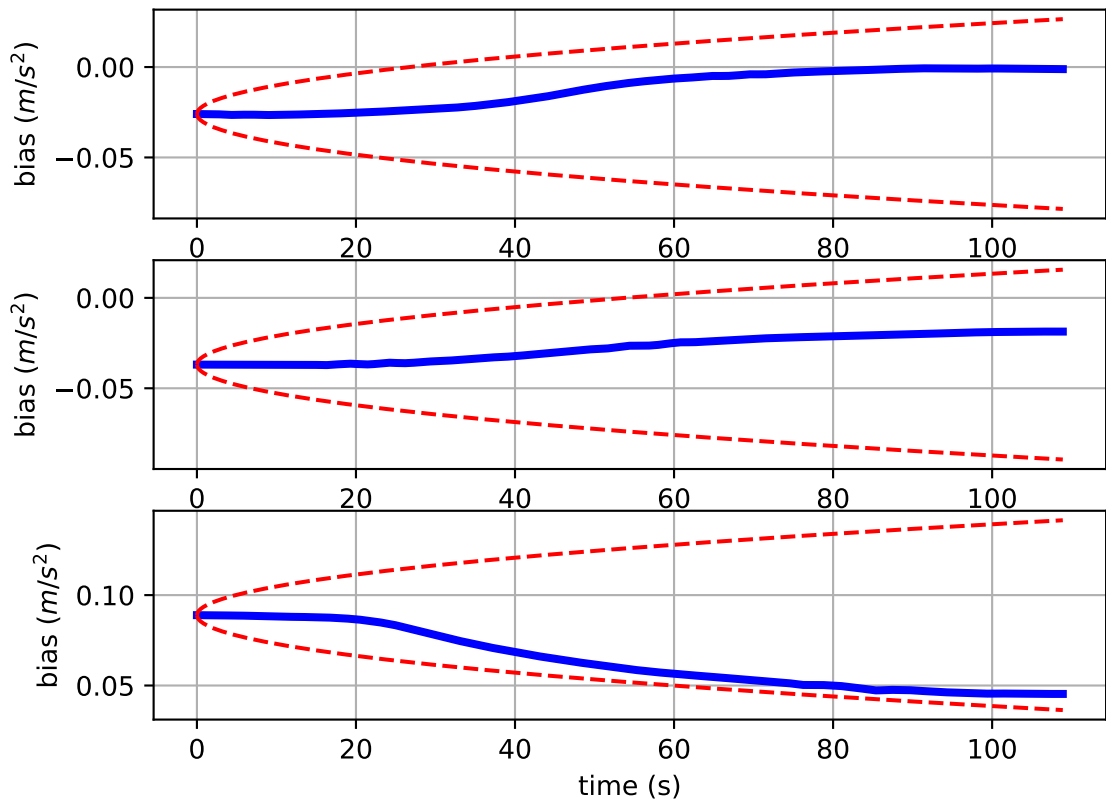
Comparison of predicted and measured specific force (imu0 frame)



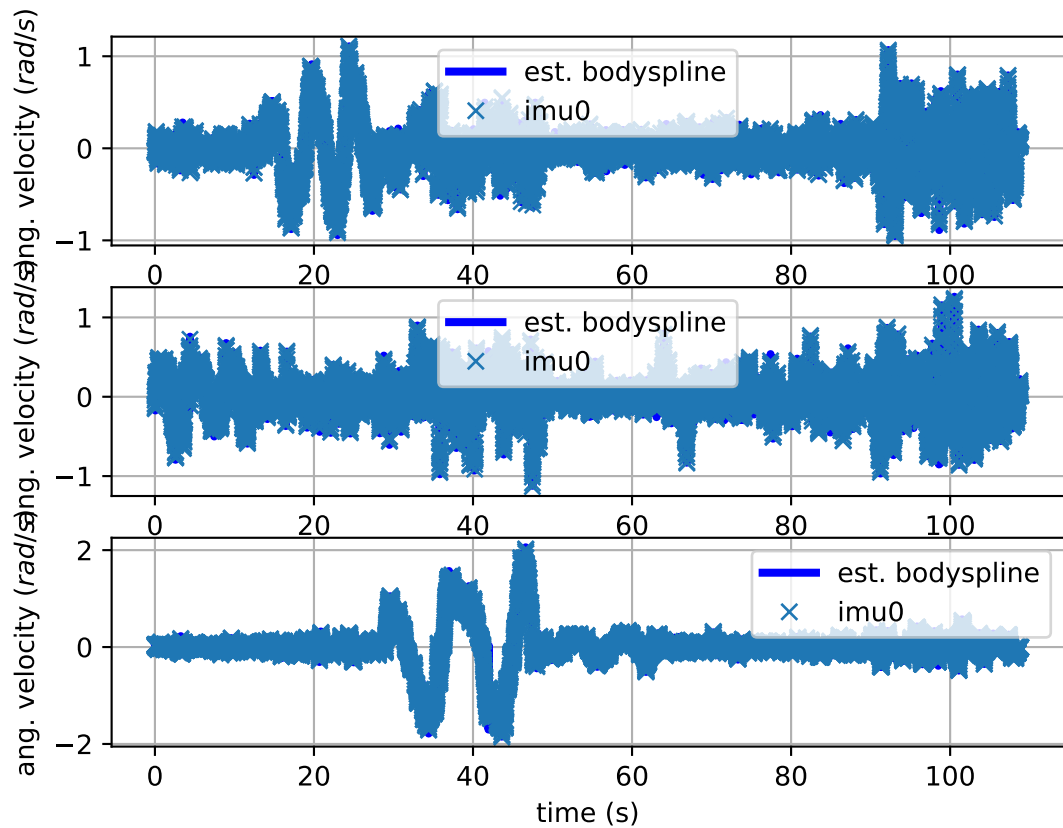
imu0: acceleration error



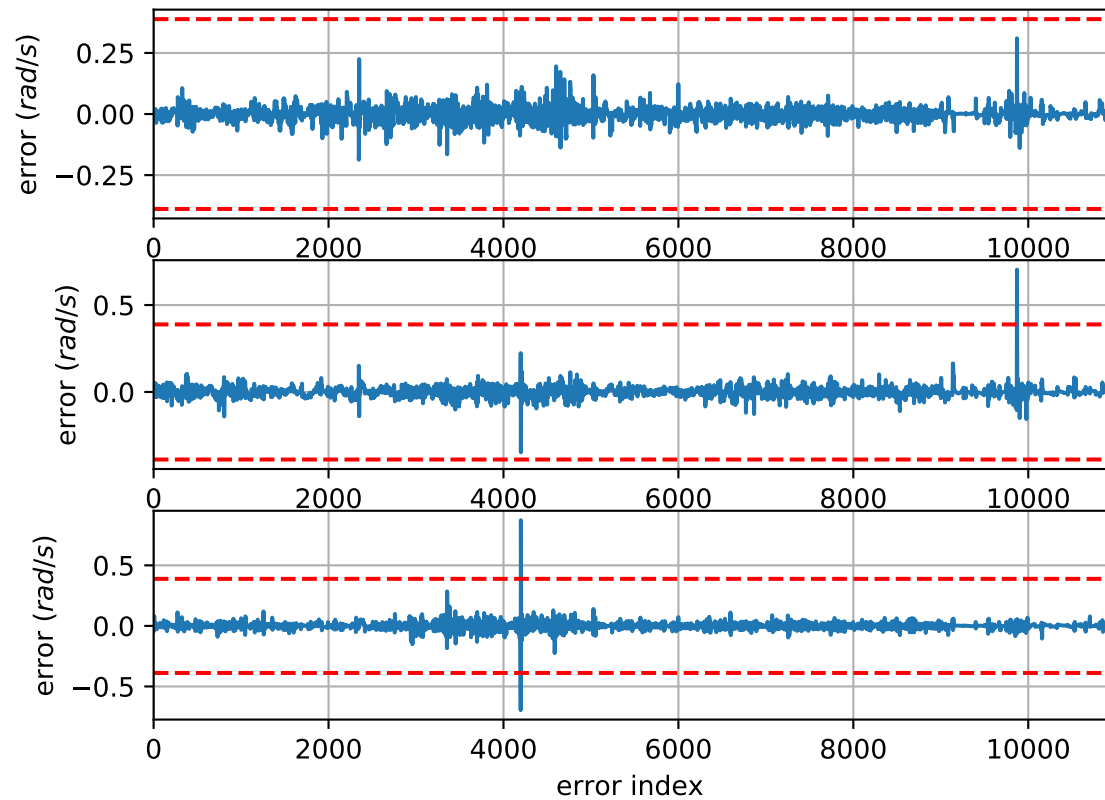
imu0: estimated accelerometer bias (imu frame)



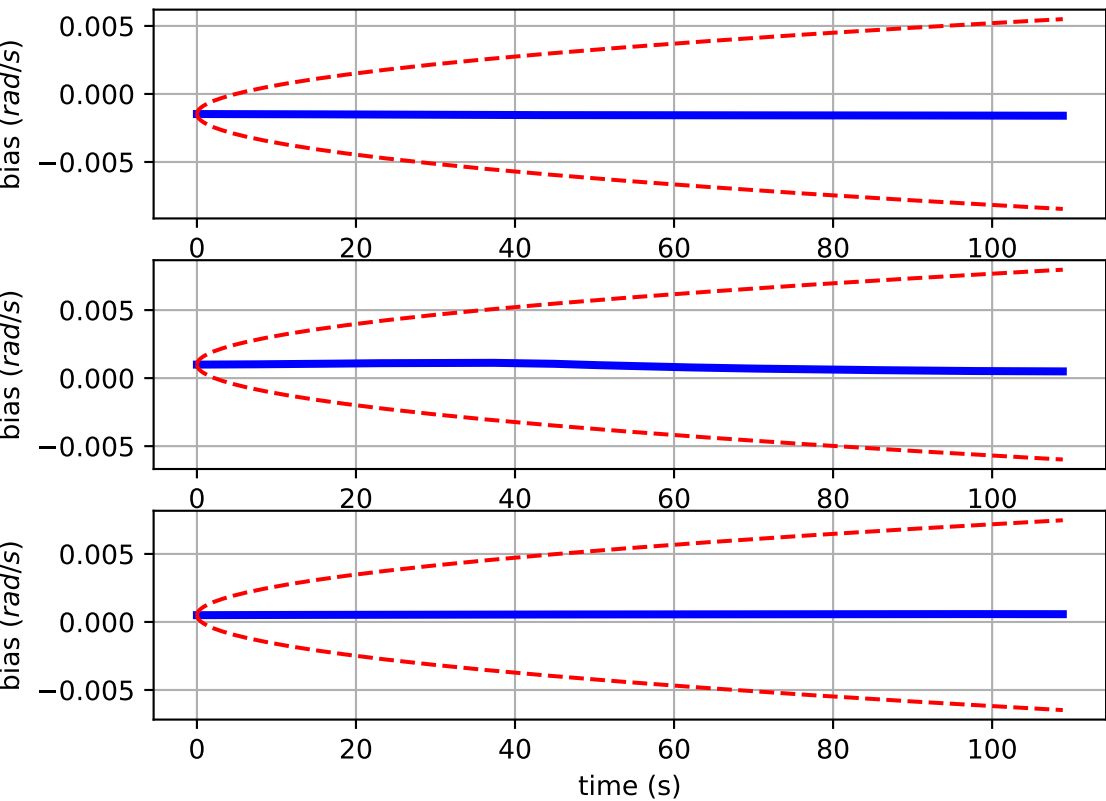
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

