

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.343265235049, median 0.315375169089, std: 0.192307008261
Gyroscope error (imu0): mean 0.105219933506, median 0.0977254578638, std: 0.0509616310523
Accelerometer error (imu0): mean 0.0894029044565, median 0.0819572103277, std: 0.0451781060345

Residuals

Reprojection error (cam0) [px]: mean 0.343265235049, median 0.315375169089, std: 0.192307008261
Gyroscope error (imu0) [rad/s]: mean 0.00398609174686, median 0.00370217532048, std: 0.0019306012
Accelerometer error (imu0) [m/s²]: mean 0.0410446765936, median 0.0376263748126, std: 0.020741169

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[-0.9996588  0.02606689  0.00167138  0.02397922]
 [ 0.00114953 -0.02002162  0.99979889  0.02449989]
 [ 0.02609511  0.99945968  0.01998482 -0.0483304 ]
 [ 0.         0.         0.         1.         ]]
```

T_ic: (cam0 to imu0):

```
[[-0.9996588  0.00114953  0.02609511  0.02520406]
 [ 0.02606689 -0.02002162  0.99945968  0.04816975]
 [ 0.00167138  0.99979889  0.01998482 -0.02356917]
 [ 0.         0.         0.         1.         ]]
```

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
0.010407294813465182

Gravity vector in target coords: [m/s²]
[-0.00370286 -9.80616595 -0.08670975]

Calibration configuration

Camera model: pinhole
Focal length: [319.265566737034, 319.12725117440743]
Principal point: [363.06162039406325, 283.23416781666816]
Distortion model: equidistant
Distortion coefficients: [0.008349639161214801, -0.010246862080932199, 0.010568016597077219, -0.00
Type: aprilgrid
Tags:
 Rows: 6
 Cols: 6
 Size: 0.06 [m]
 Spacing 0.018 [m]

IMU configuration

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IMU0:

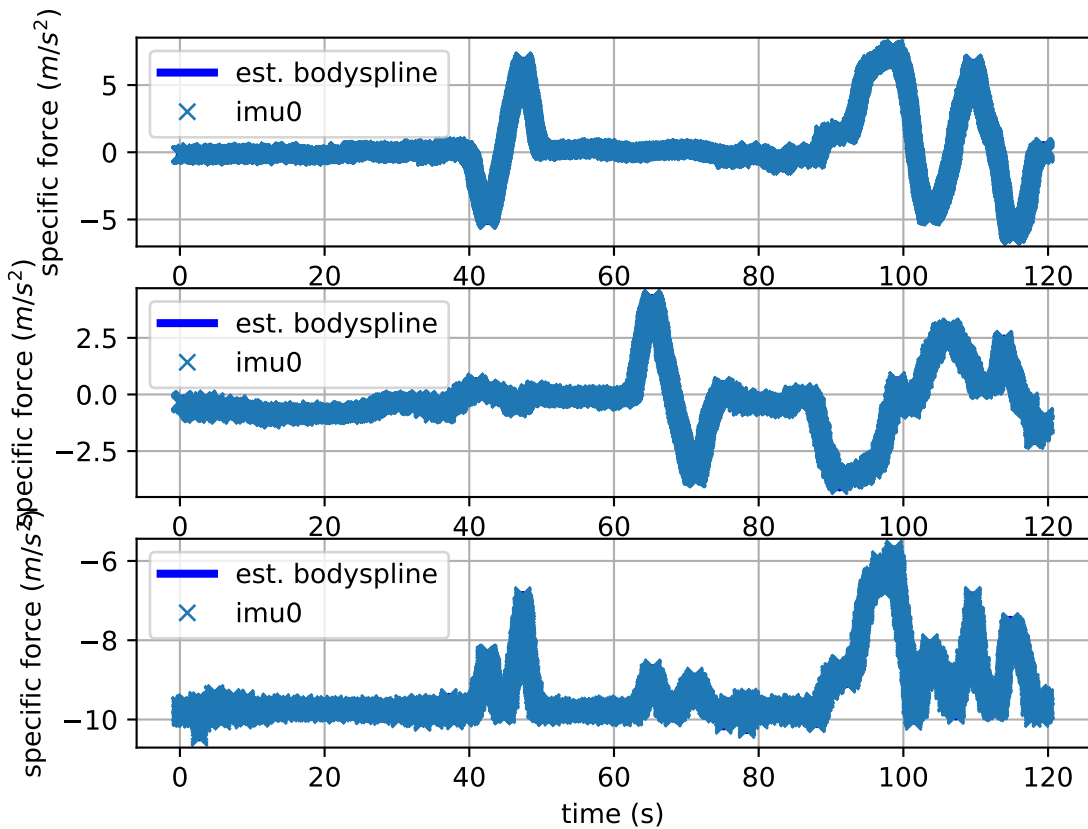
Model: calibrated
Update rate: 204.611829031
Accelerometer:
 Noise density: 0.0320951818851
 Noise density (discrete): 0.459097798255
 Random walk: 0.00155258017445
Gyroscope:
 Noise density: 0.00264840194853
 Noise density (discrete): 0.0378834277312
 Random walk: 7.49414715882e-05

T_i_b

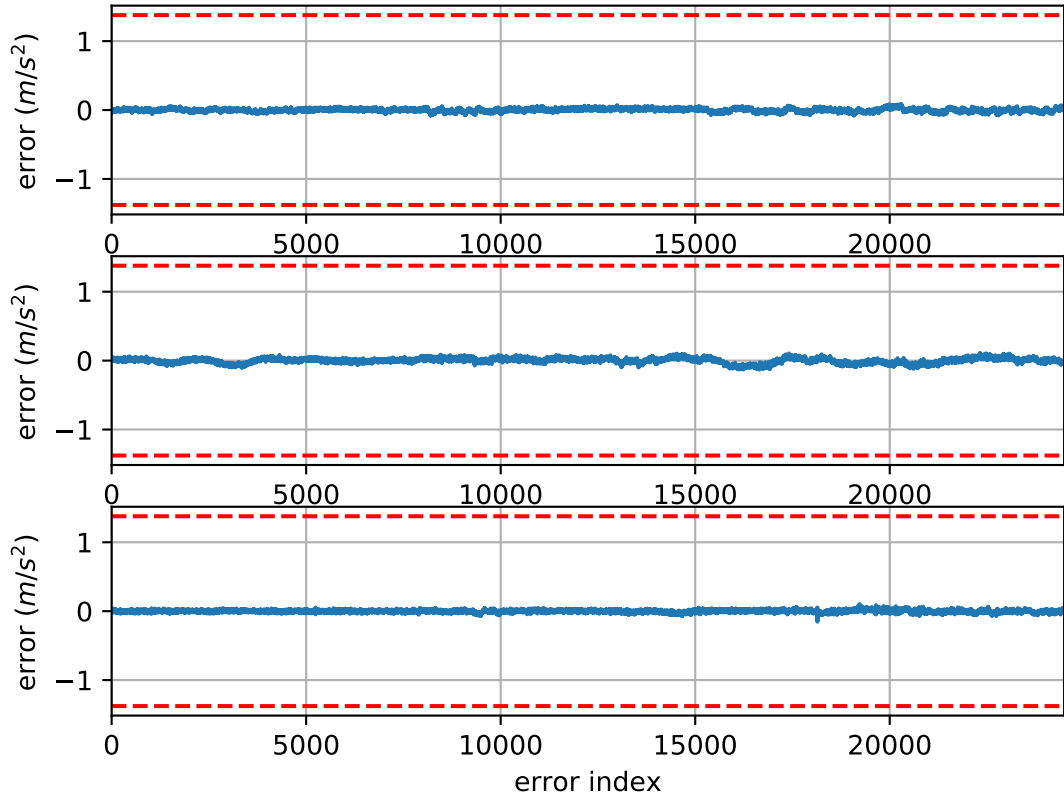
[[1. 0. 0. 0.]
 [0. 1. 0. 0.]
 [0. 0. 1. 0.]
 [0. 0. 0. 1.]]

time offset with respect to IMU0: 0.0 [s]

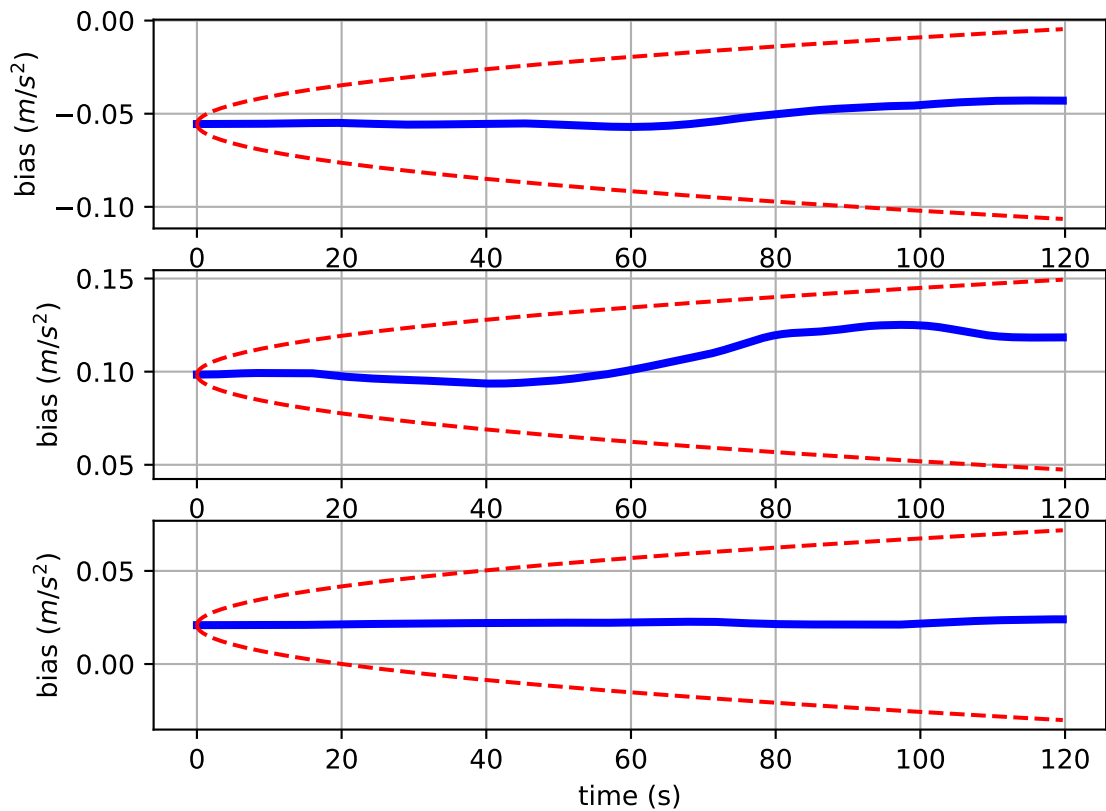
Comparison of predicted and measured specific force (imu0 frame)



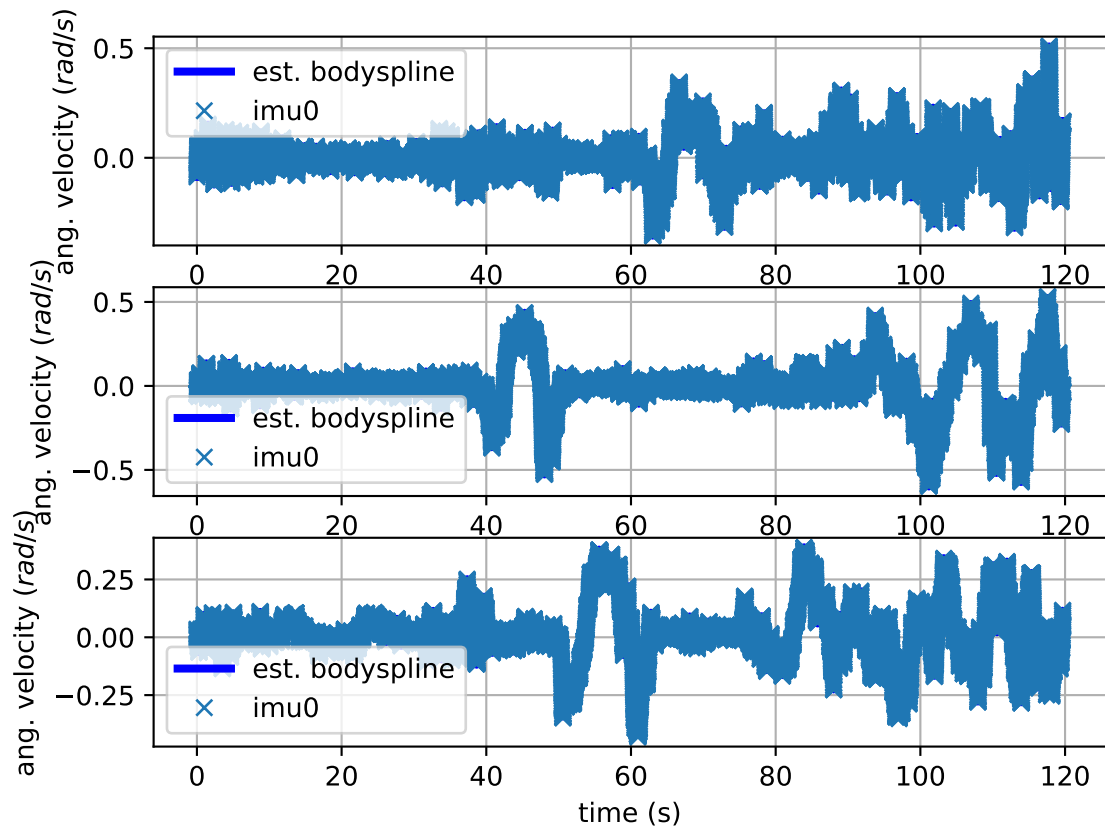
imu0: acceleration error



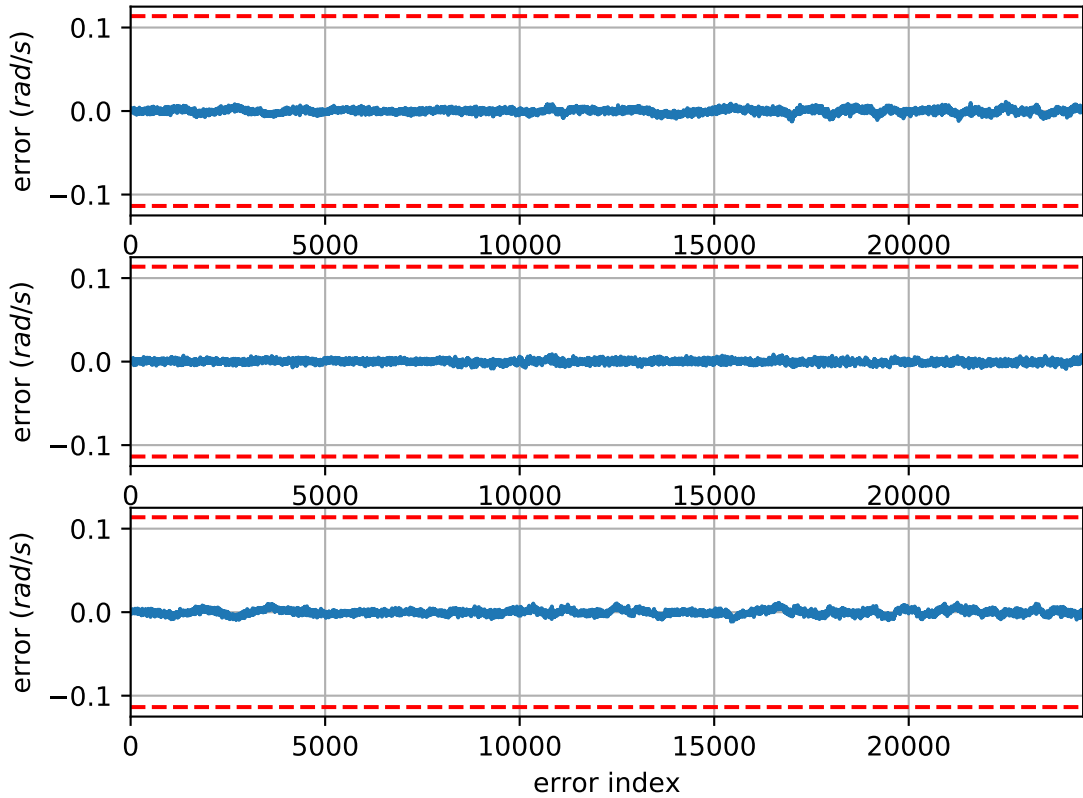
imu0: estimated accelerometer bias (imu frame)



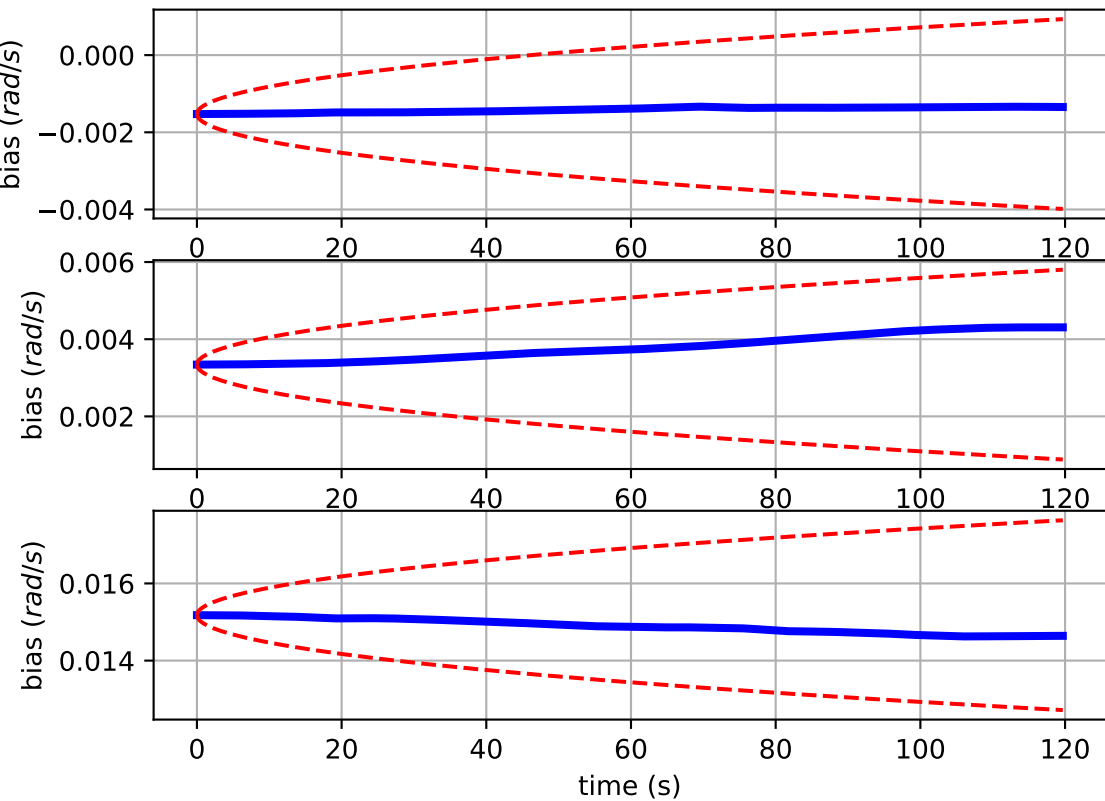
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

