

Calibration results

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Normalized Residuals

Reprojection error (cam0): mean 0.856686436069, median 0.761914426378, std: 0.545321155412
Gyroscope error (imu0): mean 0.00585696768457, median 1.90282502525e-05, std: 0.0379750156375
Accelerometer error (imu0): mean 0.0004374007042, median 4.91447647906e-06, std: 0.00472828822315

Residuals

Reprojection error (cam0) [px]: mean 0.856686436069, median 0.761914426378, std: 0.545321155412
Gyroscope error (imu0) [rad/s]: mean 0.00226839383016, median 7.36960963354e-06, std: 0.0147076603136
Accelerometer error (imu0) [m/s²]: mean 0.000677618257195, median 7.6134742235e-06, std: 0.00732503261773

Transformation (cam0):

T_ci: (imu0 to cam0):

```
[[-0.05758458 -0.9983312 -0.00433922 -0.00036482]
 [-0.99533121 0.05707323 0.07783597 0.00080786]
 [-0.07745842 0.00880111 -0.99695674 0.00032788]
 [ 0.          0.          0.          1.        ]]
```

T_ic: (cam0 to imu0):

```
[[-0.05758458 -0.99533121 -0.07745842 0.00080848]
 [-0.9983312 0.05707323 0.00880111 -0.0004132 ]
 [-0.00433922 0.07783597 -0.99695674 0.00026242]
 [ 0.          0.          0.          1.        ]]
```

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

0.00212407646252

Gravity vector in target coords: [m/s²]

[9.4593524 -1.47004095 -2.12792262]

Calibration configuration

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cam0

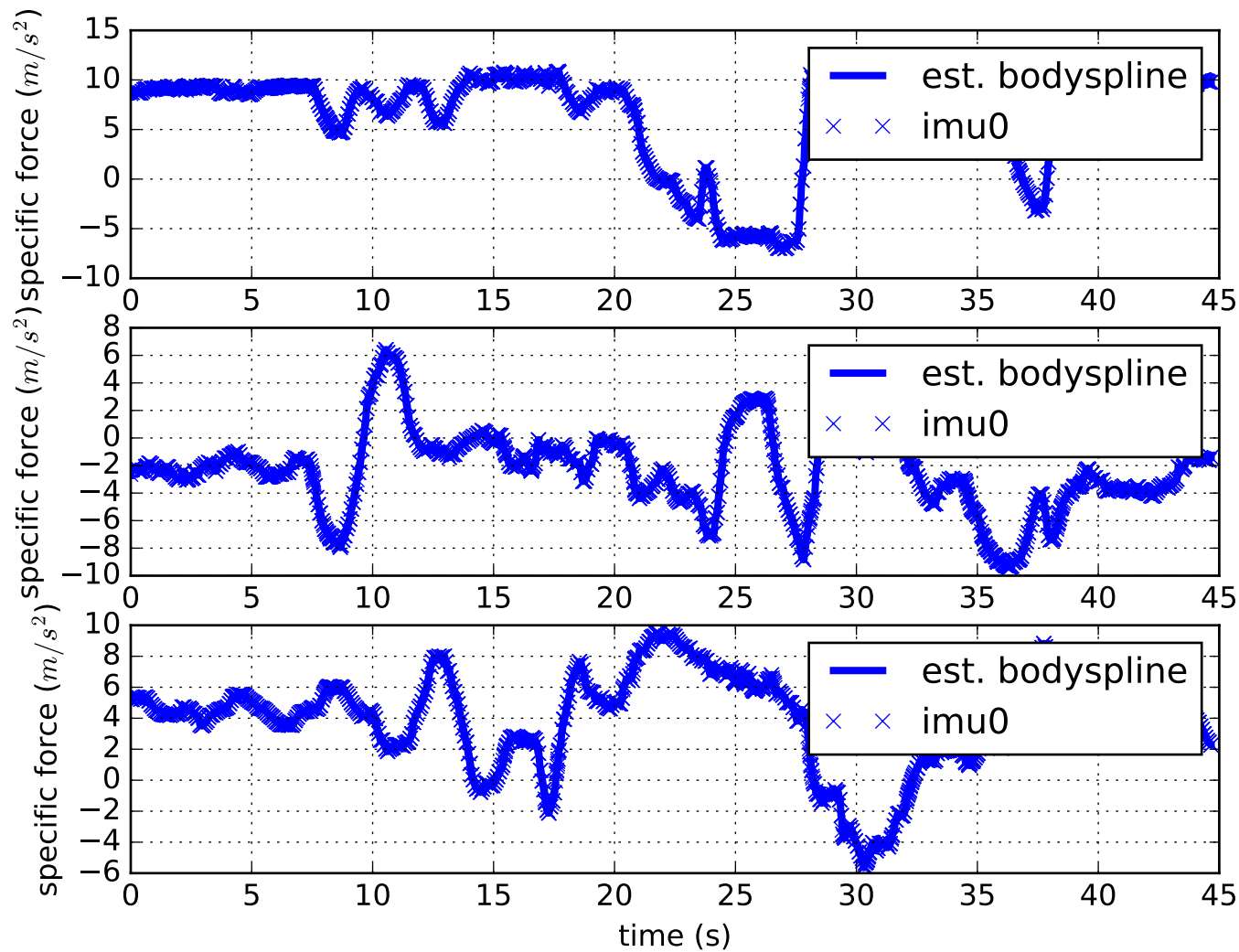
Camera model: pinhole
Focal length: [400.044709, 400.152383]
Principal point: [305.921838, 265.556036]
Distortion model: radtan
Distortion coefficients: [-0.315107, 0.091515, -0.001278, -0.000781]
Type: aprilgrid
Tags:
 Rows: 6
 Cols: 6
 Size: 0.0385 [m]
 Spacing 0.01155 [m]

IMU configuration
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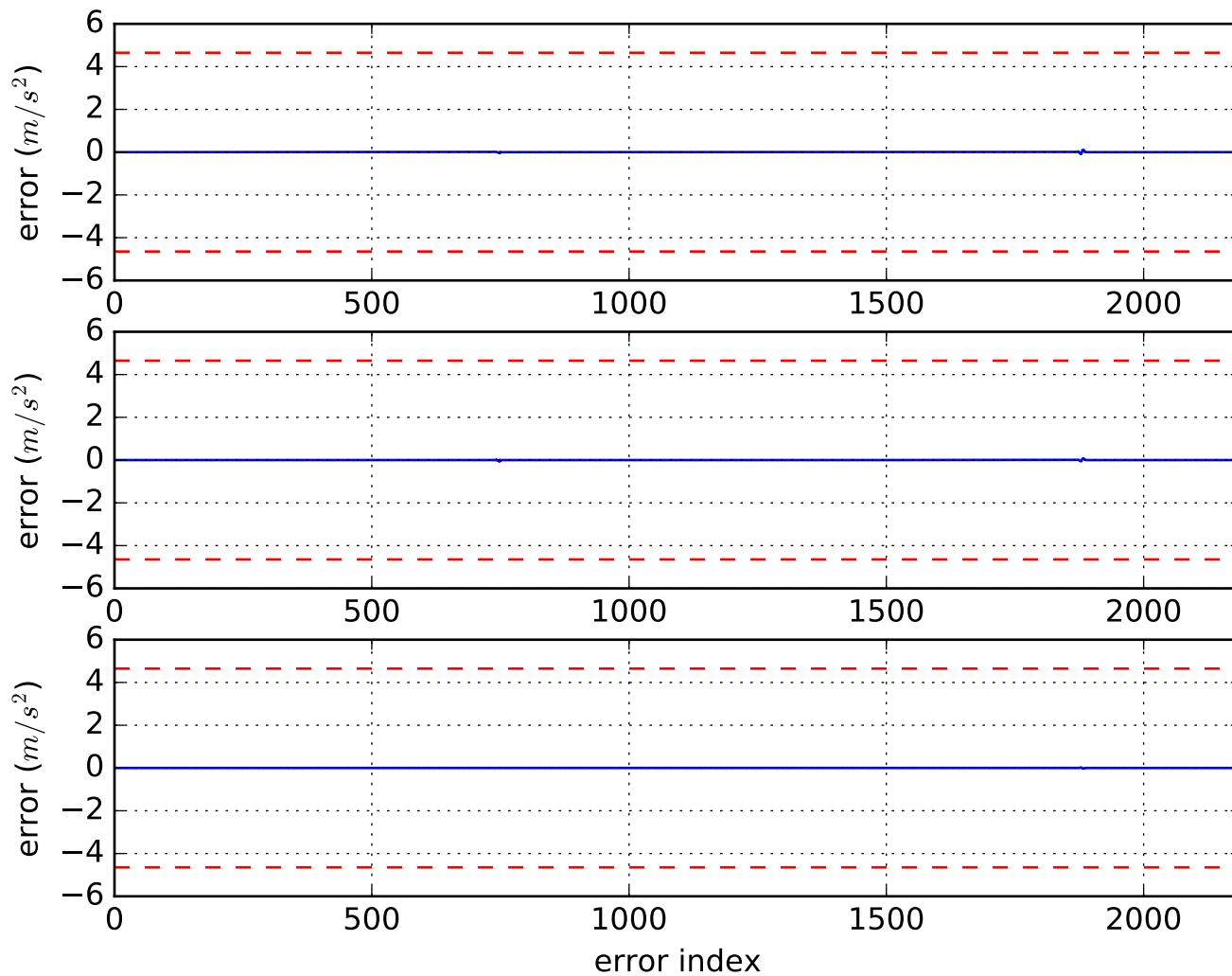
IMU0:

Model: calibrated
Update rate: 60.0
Accelerometer:
 Noise density: 0.2
 Noise density (discrete): 1.54919333848
 Random walk: 0.02
Gyroscope:
 Noise density: 0.05
 Noise density (discrete): 0.387298334621
 Random walk: 0.004
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]

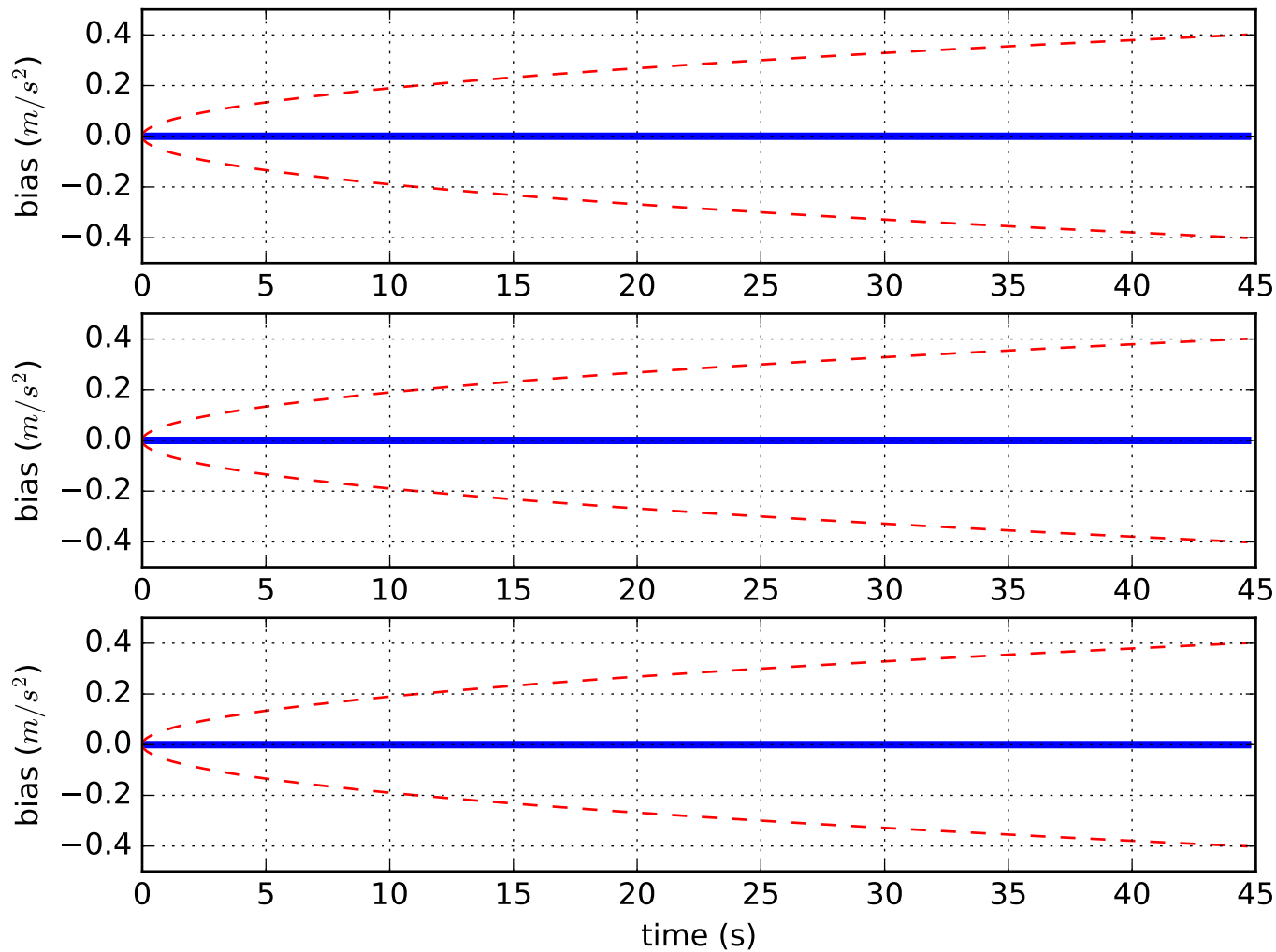
Comparison of predicted and measured specific force (imu0 frame)



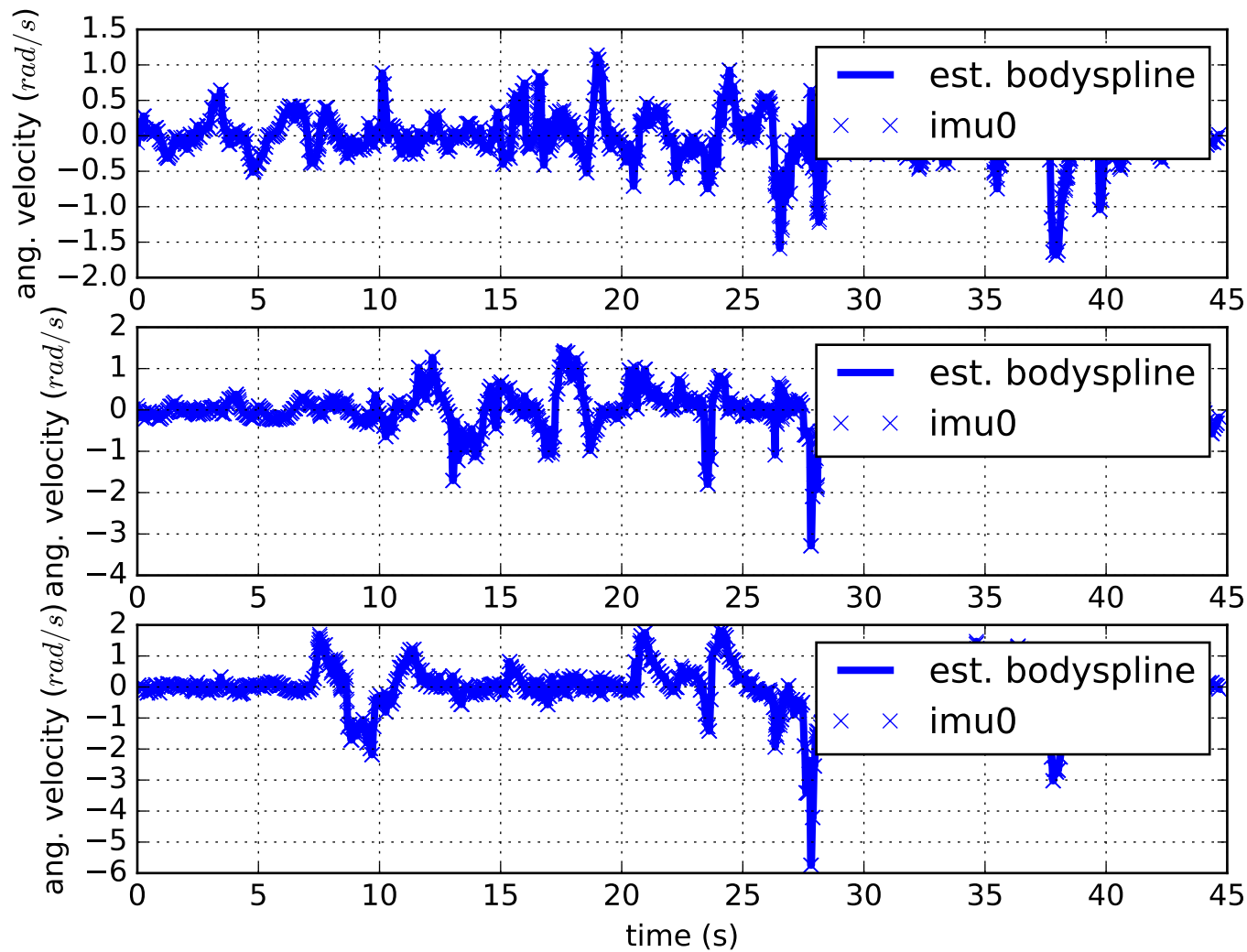
imu0: acceleration error



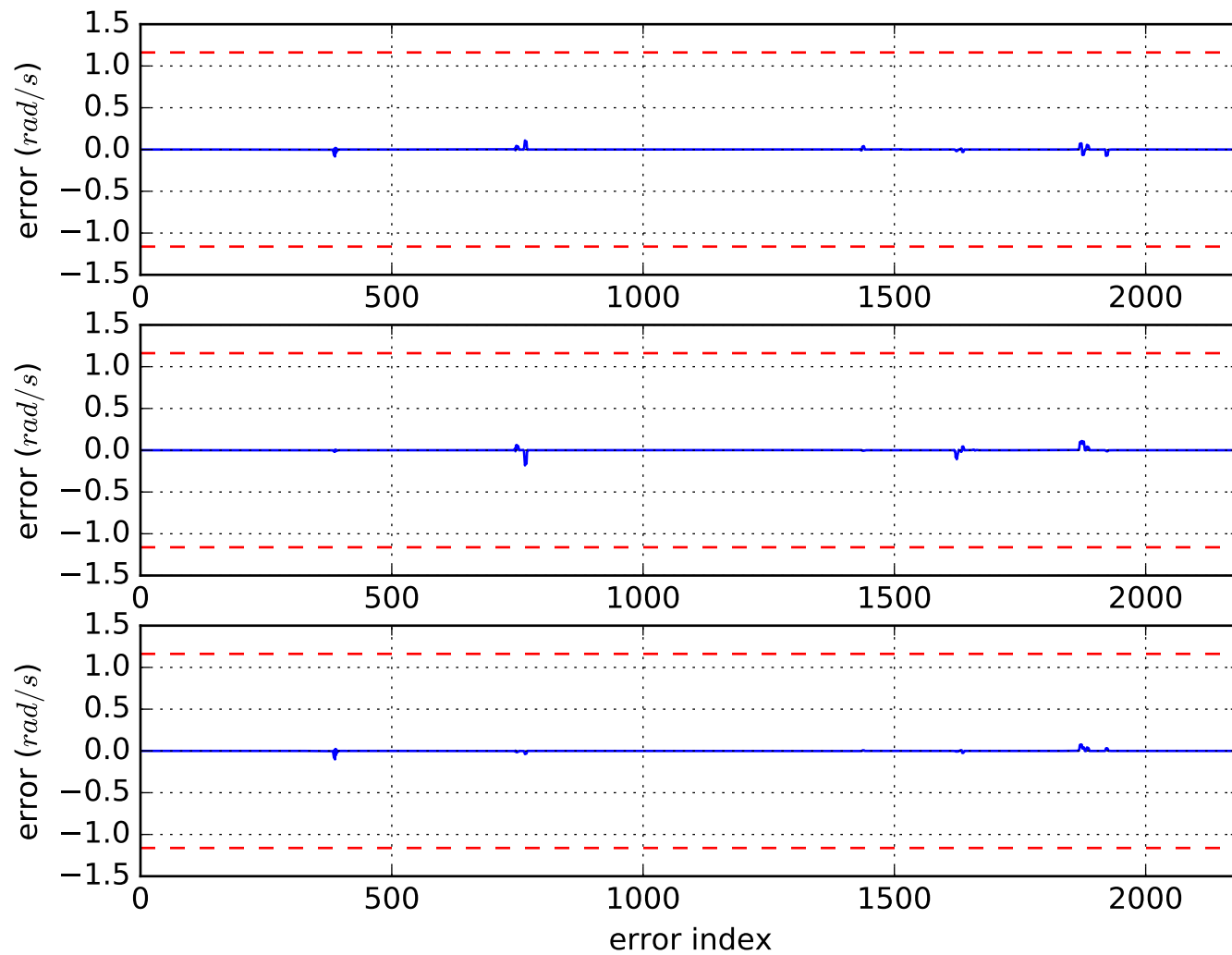
imu0: estimated accelerometer bias (imu frame)



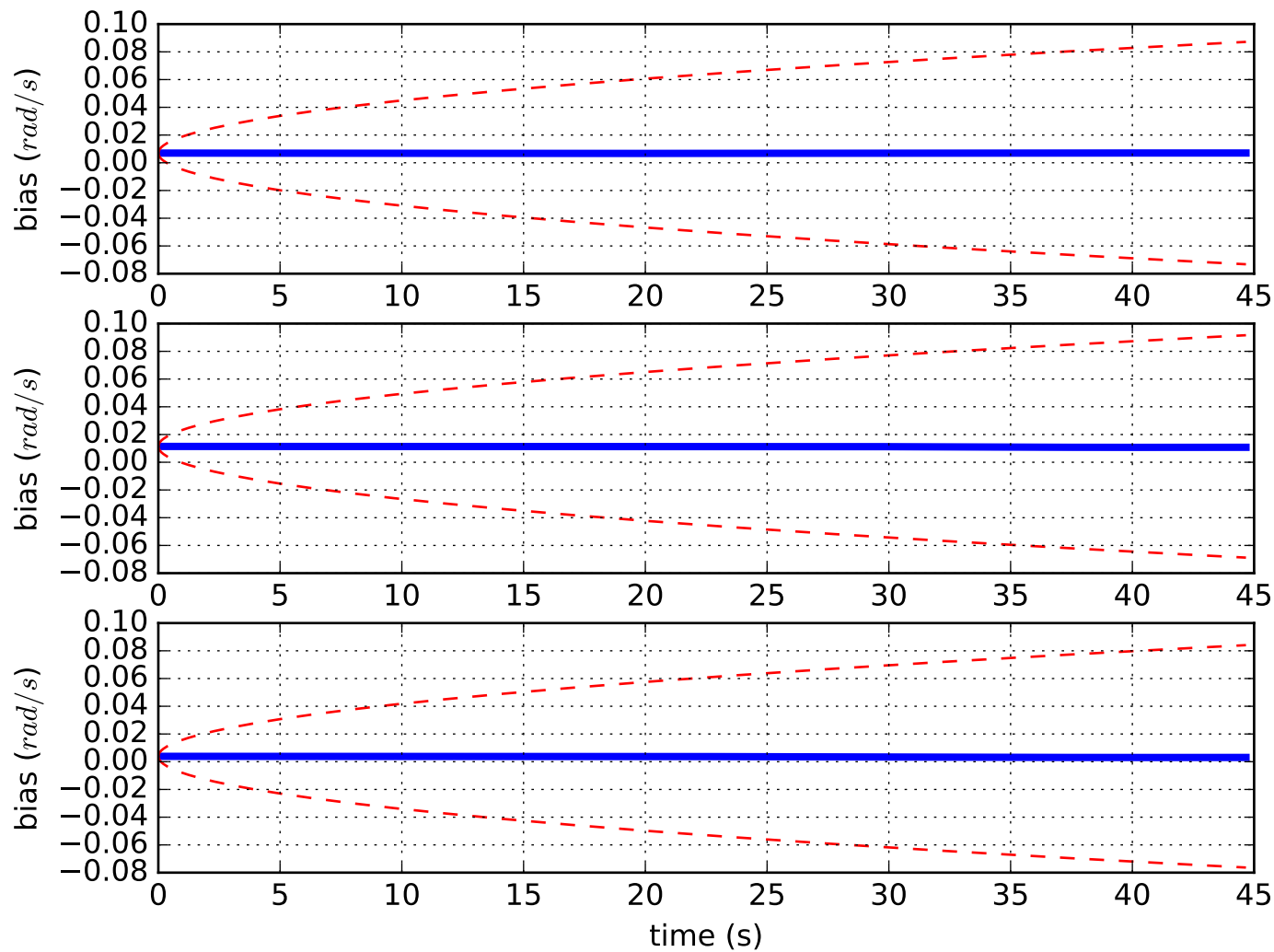
Comparison of predicted and measured angular velocities (body frame)



imu0: angular velocities error



imu0: estimated gyro bias (imu frame)



cam0: reprojection errors

