Calibration results
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Normalized Residuals

Reprojection error (cam0):   mean 4.155596949751825, median 2.3824585409211556, std: 4.551676827719519
Gyroscope error (imu0):   mean 5.721474761967736, median 4.852046354203252, std: 3.697977641248905
Accelerometer error (imu0):   mean 8.835402114362473, median 6.079146415028523, std: 7.574325056163488

Residuals

Reprojection error (cam0) [px]:   mean 4.155596949751825, median 2.3824585409211556, std: 4.551676827719519
Gyroscope error (imu0) [rad/s]:   mean 0.1372299269993465, median 0.11637663271903678, std: 0.08869622306596911
Accelerometer error (imu0) [m/s^2]: mean 0.23353426937913838, median 0.16068187934250383, std: 0.2002019200864493

Transformation (cam0):

T_ci: (imu0 to cam0):
[[0.99941171 0.03033439 0.01600181 0.01900895]
 [0.01156266 -0.7372789   0.67548955 0.09405652]
 [0.03228836 -0.67490714 -0.73719591 -0.40194772]
 [0.   0.   0.   1.   ]]

T_ic: (cam0 to imu0):
[[0.99941171 0.01156266 0.03228836 -0.00710707]
 [0.03033439 -0.7372789 -0.67490714 -0.20250813]
 [0.01600181 0.67548955 -0.73719591 -0.36015259]
 [0.   0.   0.   1.   ]]

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
-0.06380292493985269

Gravity vector in target coords: [m/s^2]
[0.1695975 -6.51112075 7.33109584]

Calibration configuration
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cam0

Camera model: pinhole
Focal length: [653.4220818891049, 646.9388794125374]
Principal point: [260.19675418213643, 259.4653326146887]
Distortion model: radtan
Distortion coefficients: [0.23464296558046396, -0.6930807122946856, 0.0014095085467010708, 0.0010253107632184997]
Type: aprilgrid
Tags:
Rows: 6
Cols: 6
Size: 0.025 [m]
Spacing 0.0075 [m]

IMU configuration
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IMU0:

Model: calibrated
Update rate: 200.0
Accelerometer:
Noise density: 0.001869
Noise density (discrete): 0.026431651480753146
Random walk: 0.00045
Gyroscope:
Noise density: 0.001696
Noise density (discrete): 0.023985062017847694
Random walk: 1.939e-05
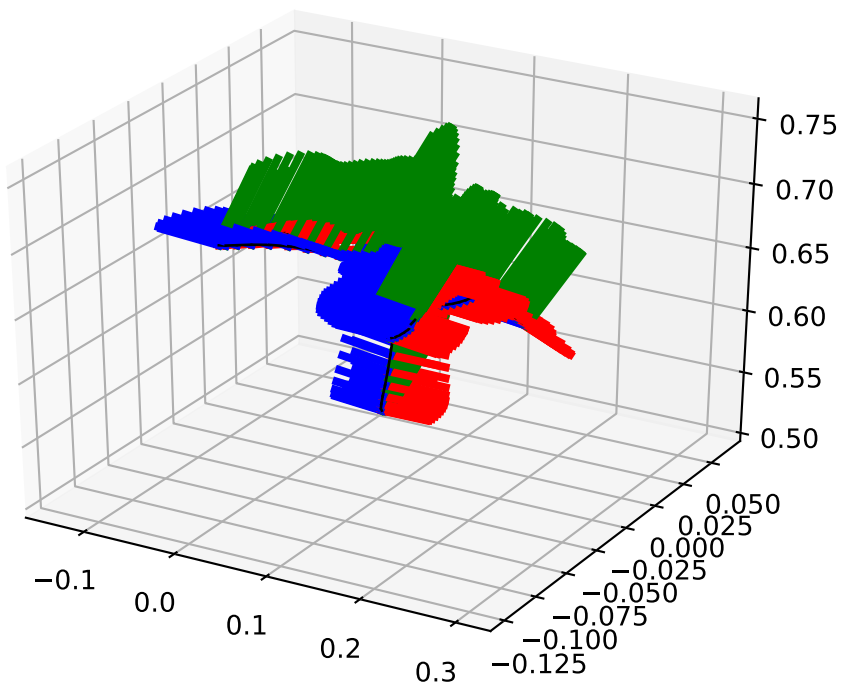
```
T_ib (imu0 to imu0)
[[1. 0. 0. 0.]
[0. 1. 0. 0.]
[0. 0. 1. 0.]
[0. 0. 0. 1.]]
time offset with respect to IMU0: 0.0 [s]
```
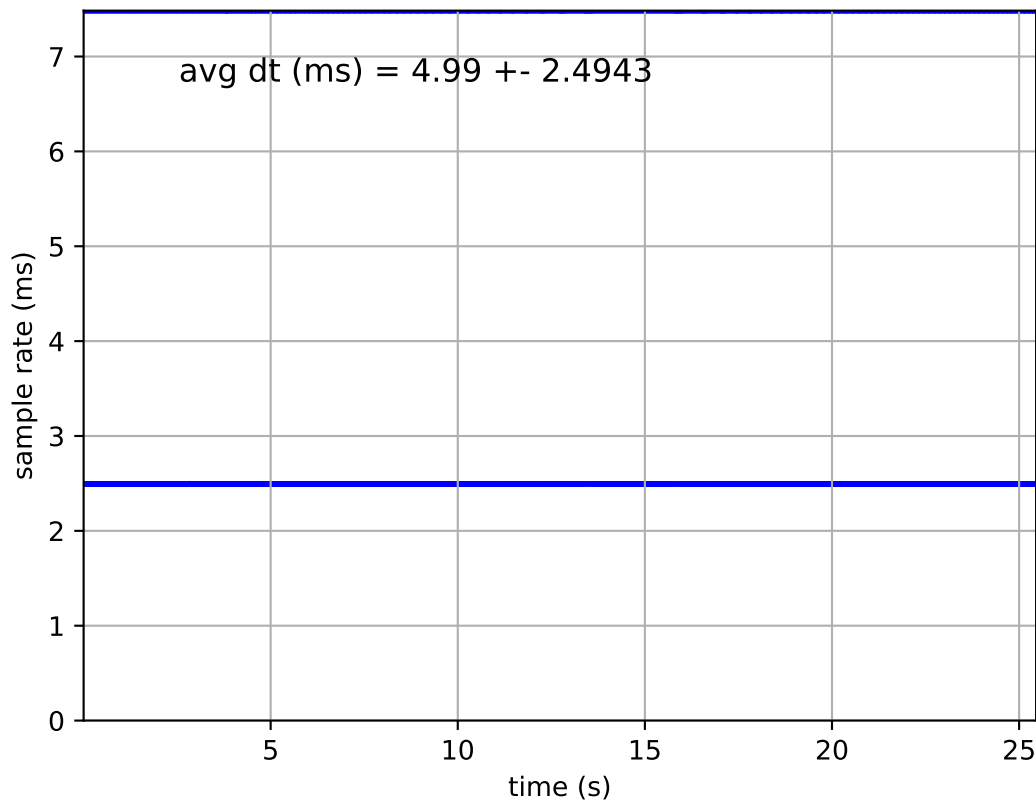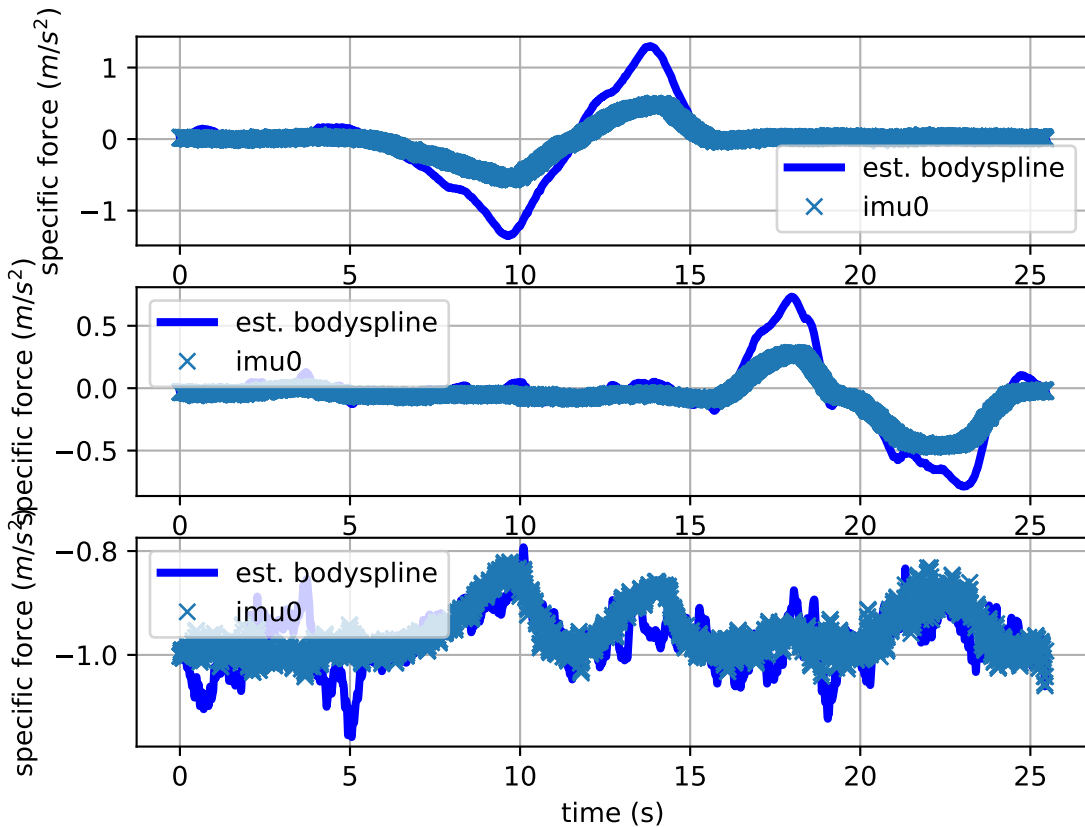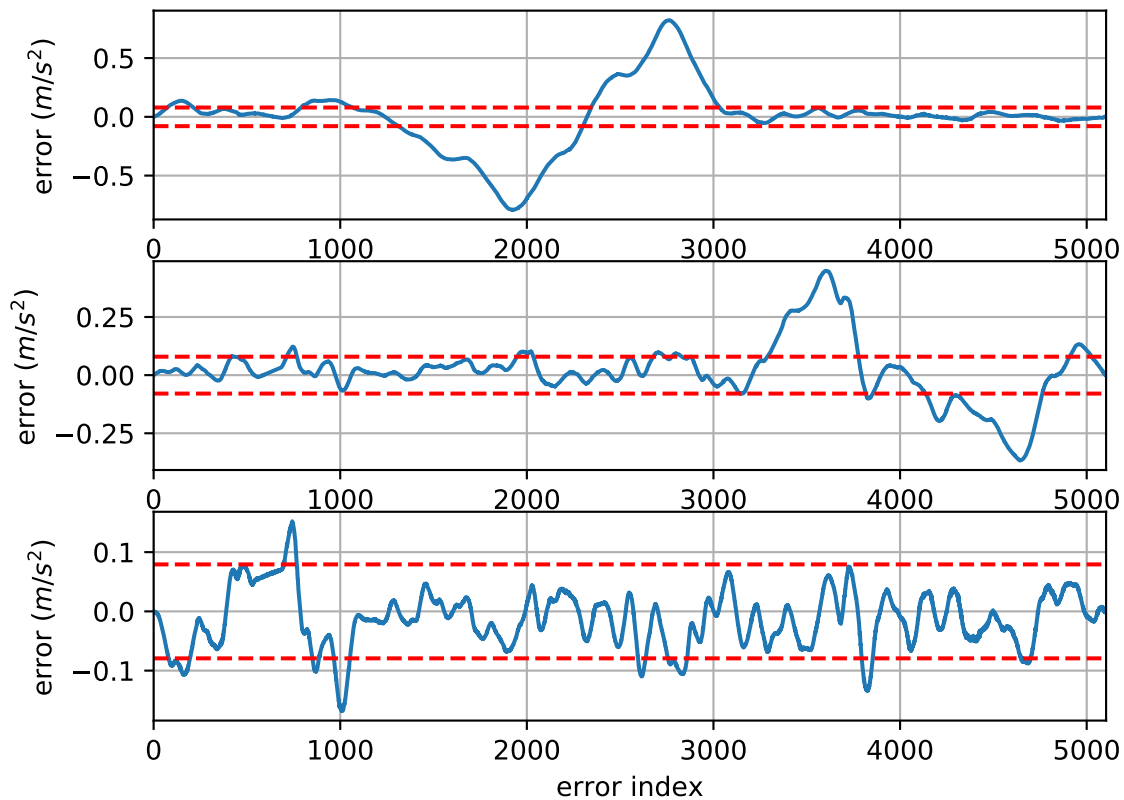
imu0: estimated poses

imu0: sample inertial rate

avg dt (ms) = 4.99 +- 2.4943
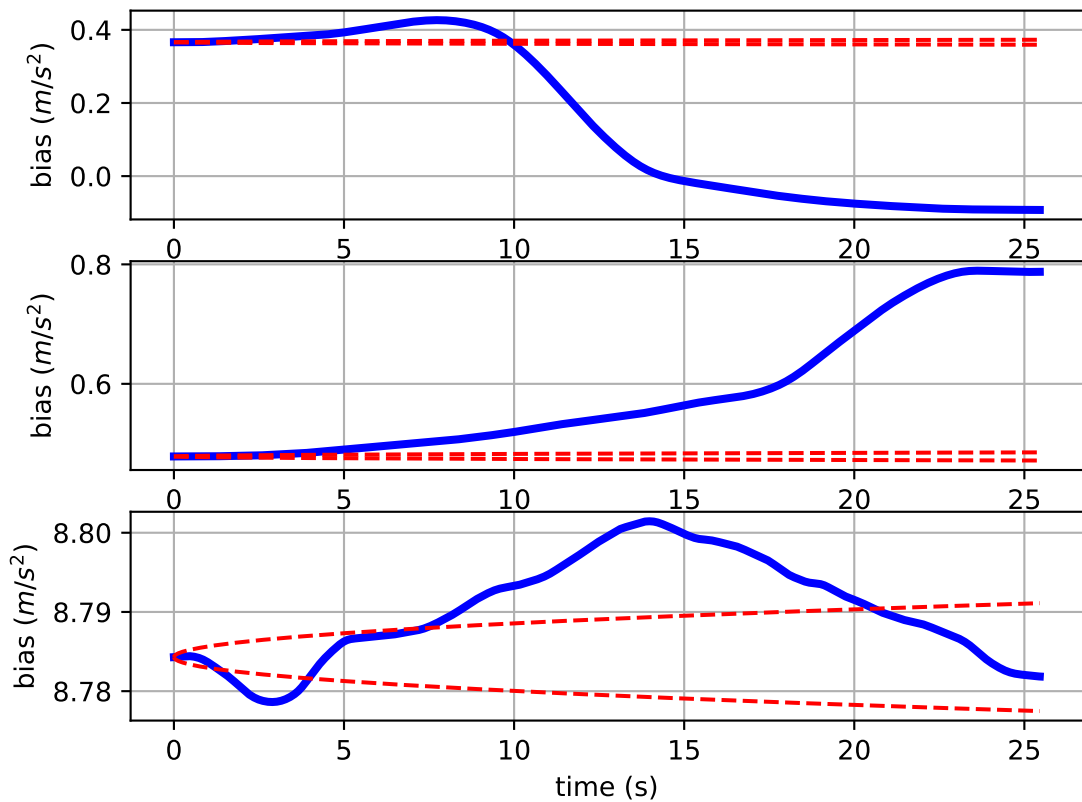
sample rate (ms)

time (s)

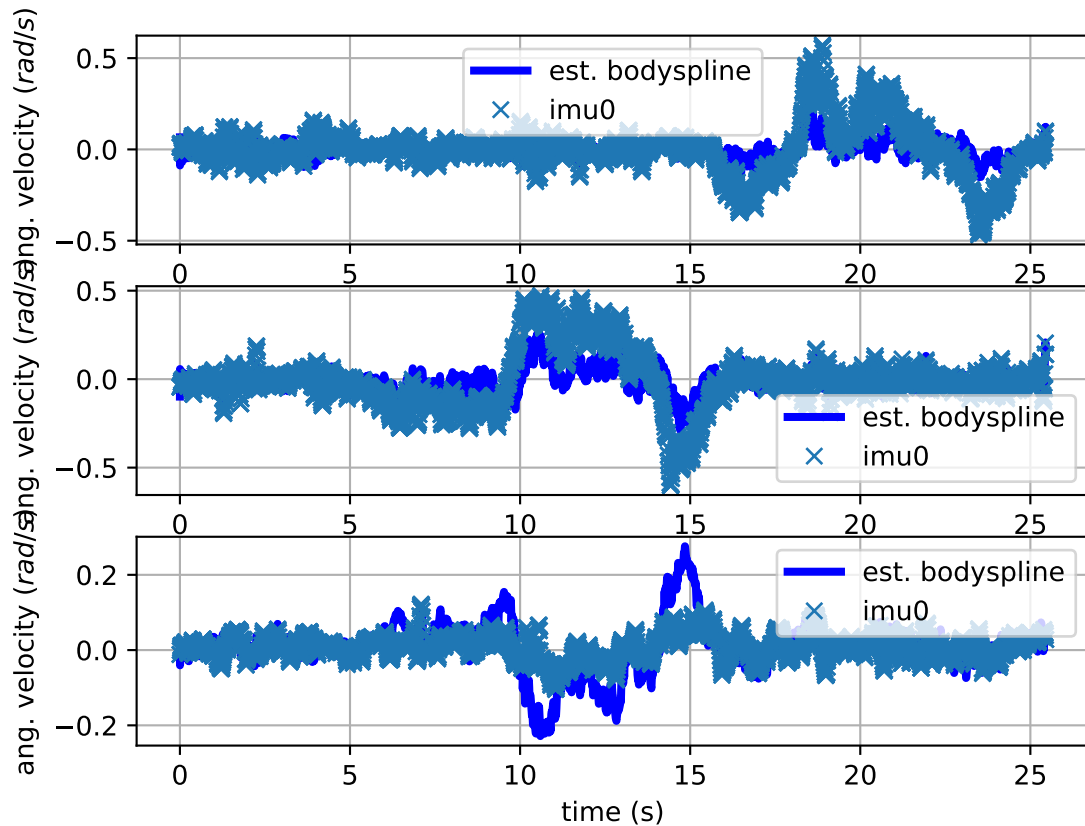Comparison of predicted and measured specific force (imu0 frame)
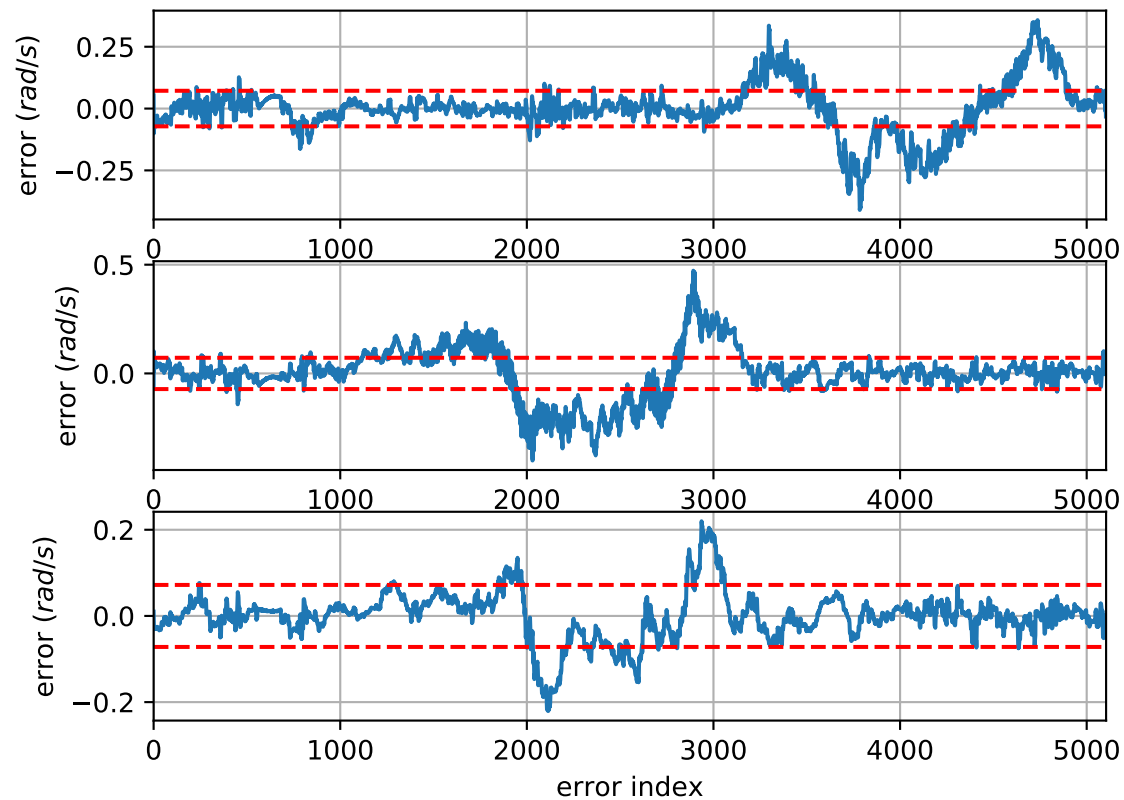
imu0: acceleration error
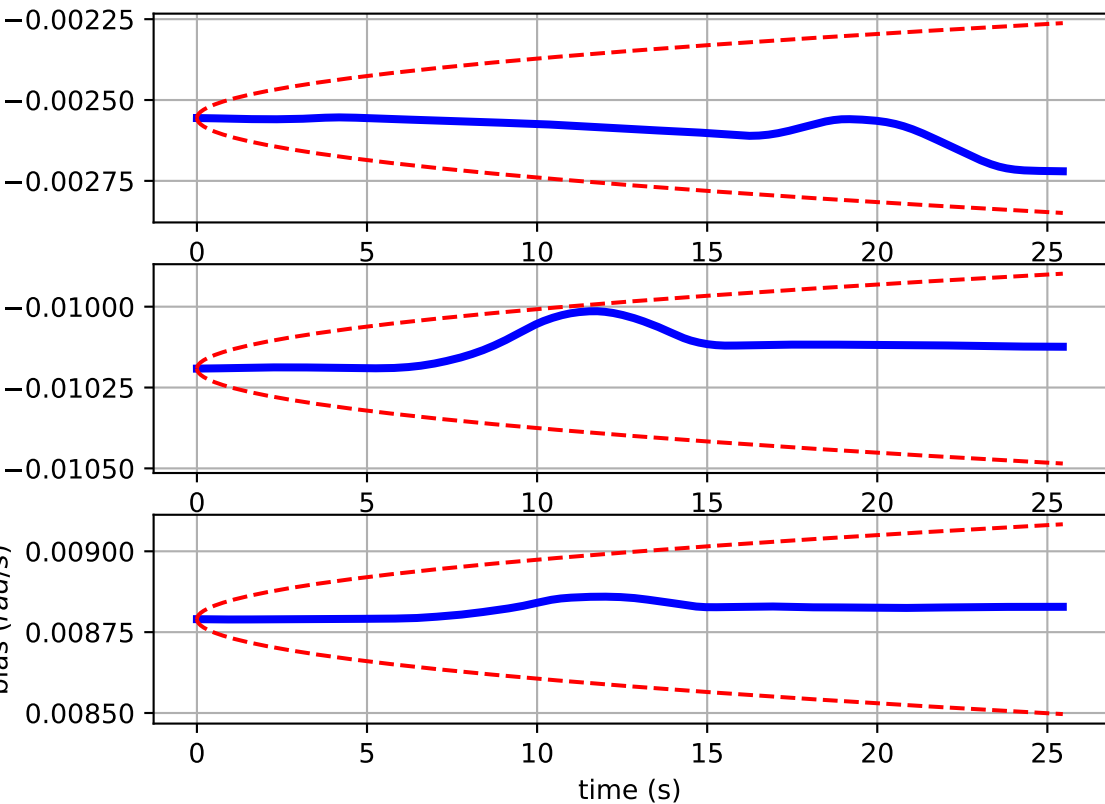
imu0: estimated accelerometer bias (imu frame)

Comparison of predicted and measured angular velocities (body frame)

imu0: angular velocities error

imu0: estimated gyro bias (imu frame)

cam0: reprojection errors