Calibration results
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Normalized Residuals

Reprojection error (cam0):   mean 2.3706840730488974, median 1.873333110088793, std: 1.9810960264564534
Gyroscope error (imu0):   mean 39.419717826153644, median 33.666134027724354, std: 23.2843814535756
Accelerometer error (imu0):   mean 7.658313189683536, median 4.426479864978205, std: 8.350986256762548

Residuals

Reprojection error (cam0) [px]:   mean 2.3706840730488974, median 1.873333110088793, std: 1.9810960264564534
Gyroscope error (imu0) [rad/s]:   mean 17.94496522777225, median 15.325771918139122, std: 10.599705897878813
Accelerometer error (imu0) [m/s^2]: mean 0.89165111721183, median 0.5153714165464396, std: 0.972298473728346

Transformation (cam0):

T_ci: (imu0 to cam0):
[[0.01768204 -0.99795183 0.06147758 -0.02962273]
 [-0.99945542 -0.01592839 0.02889901 0.00640393]
 [-0.02786058 -0.06195509 -0.99769001 0.00237858]
 [0.   0.   0.   1.   ]]

T_ic: (cam0 to imu0):
[[0.01768204 -0.99945542 -0.02786058 0.0069905]
 [-0.99795183 -0.01592839 -0.06195509 -0.02931268]
 [0.06147758 0.02889901 -0.99769001 0.00400916]
 [0.   0.   0.   1.   ]]

timeshift cam0 to imu0: [s] (t_imu = t_cam + shift)
-0.009398831750224518

Gravity vector in target coords: [m/s^2]
[-0.54126661 0.17537635 -9.79003046]

Calibration configuration
=========================

cam0

Camera model: pinhole
Focal length: [1587.7076644930676, 1588.7002929388577]
Principal point: [1924.9535429586035, 1678.3677170198903]
Distortion model: fov
Distortion coefficients: [0.838697498175345]
Type: aprilgrid
Tags:
Rows: 6
Cols: 6
Size: 0.0352 [m]
Spacing 0.01056 [m]

IMU configuration
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IMU0:

Model: calibrated
Update rate: 200
Accelerometer:
Noise density: 0.0082327862
Noise density (discrete): 0.11642917900158056
Random walk: 0.000818110190730911
Gyroscope:
Noise density: 0.0321894912
Noise density (discrete): 0.45522815020929397
Random walk: 0.009674532517691825

```
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]
```
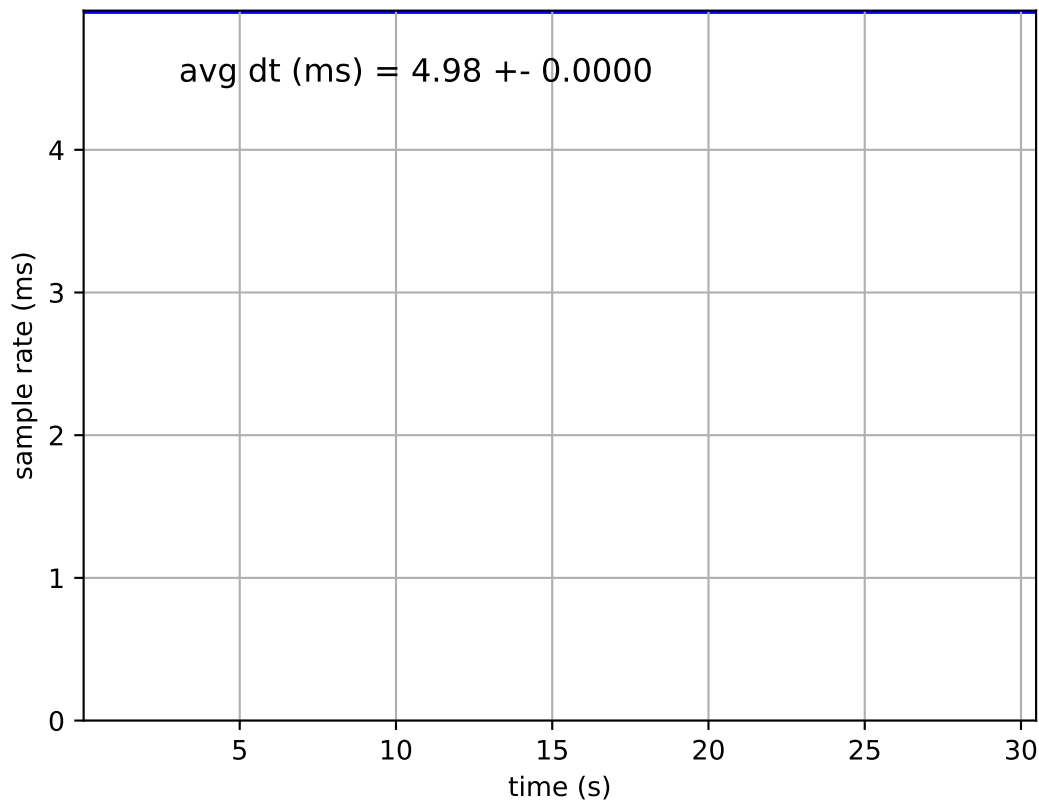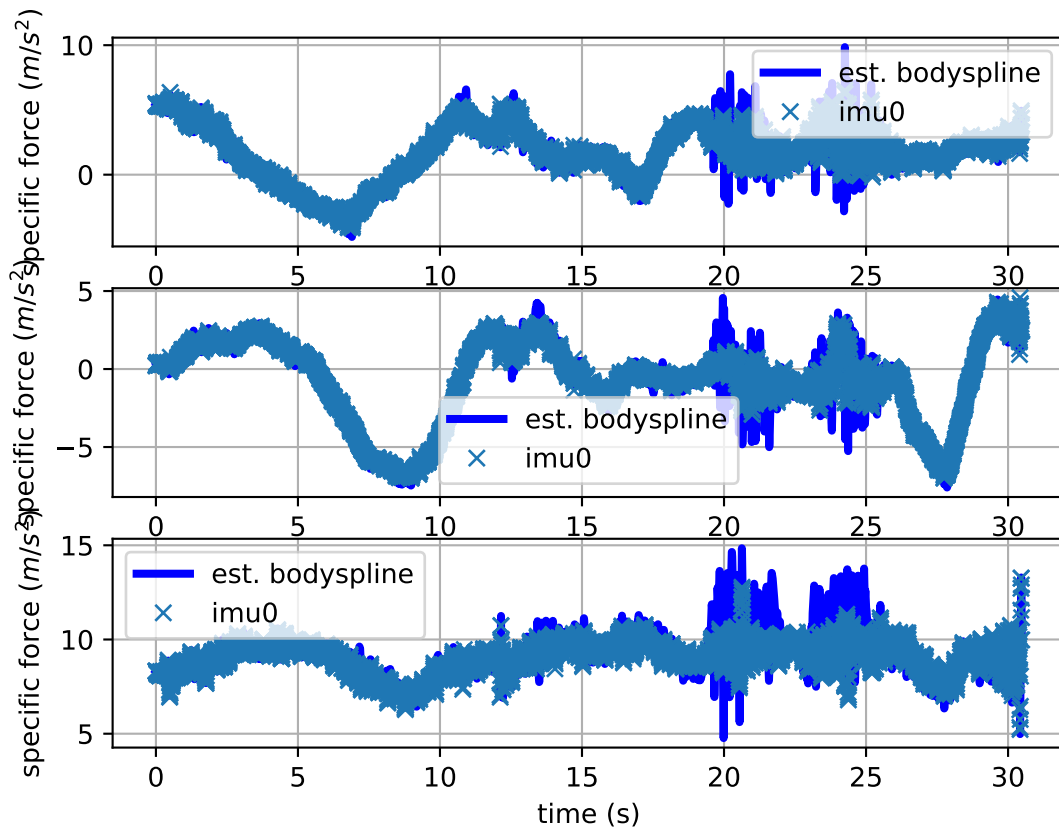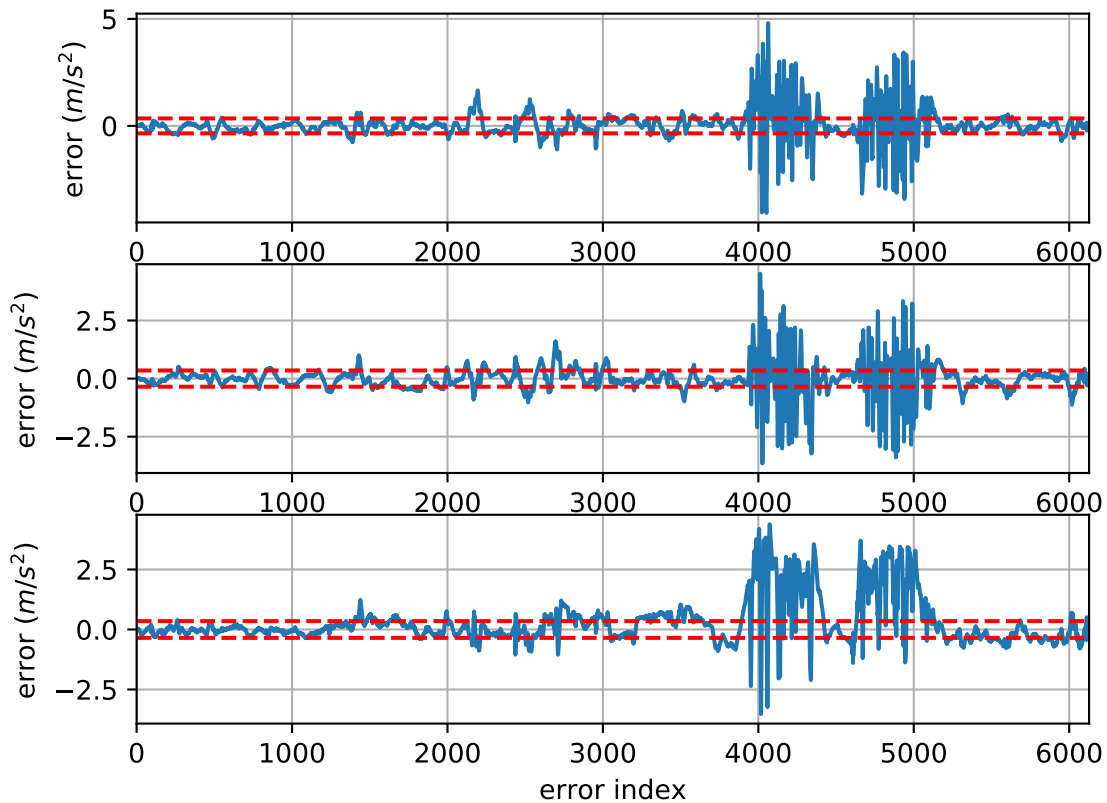
imu0: estimated poses
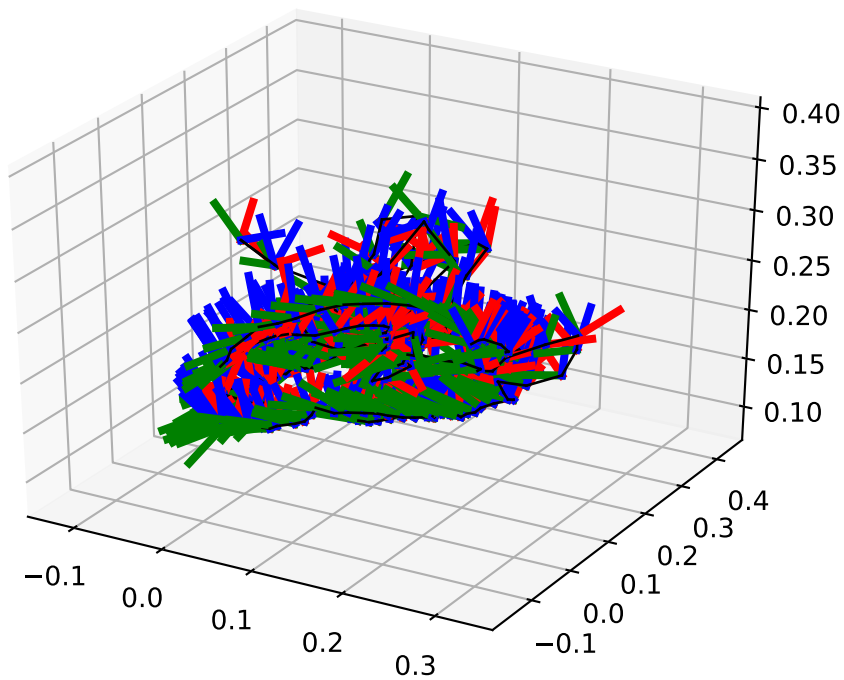
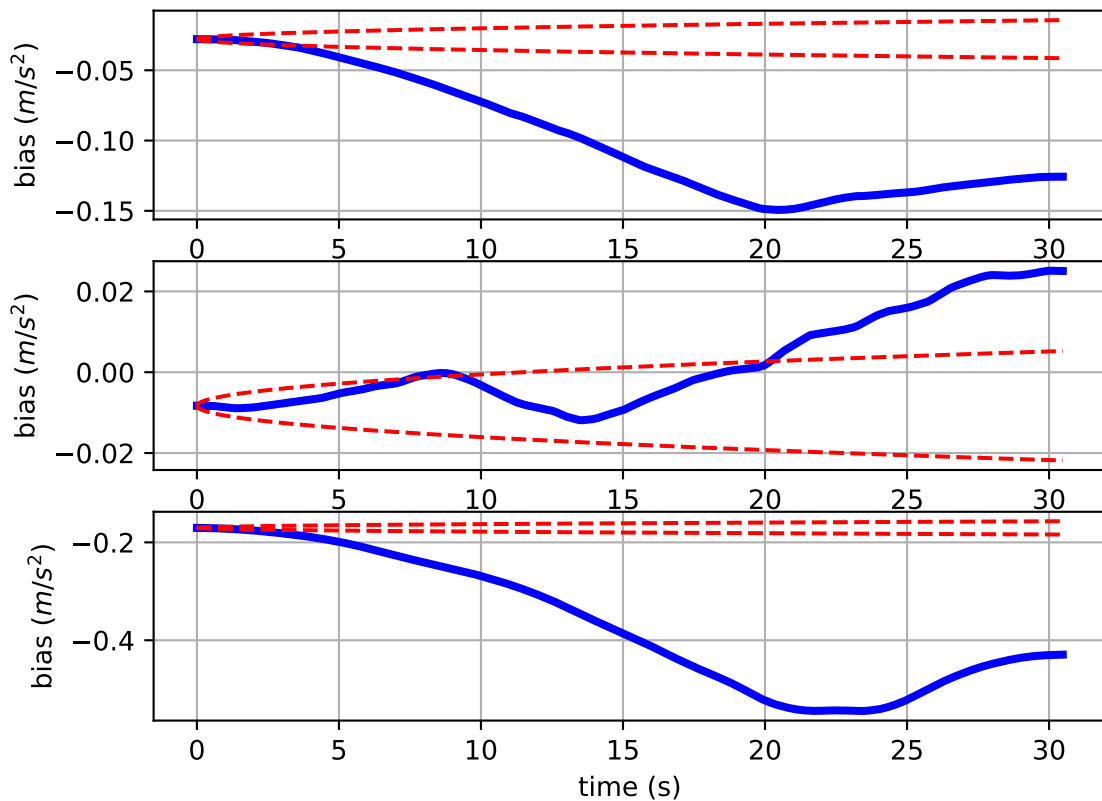imu0: sample inertial rate

avg dt (ms) = 4.98 +- 0.0000

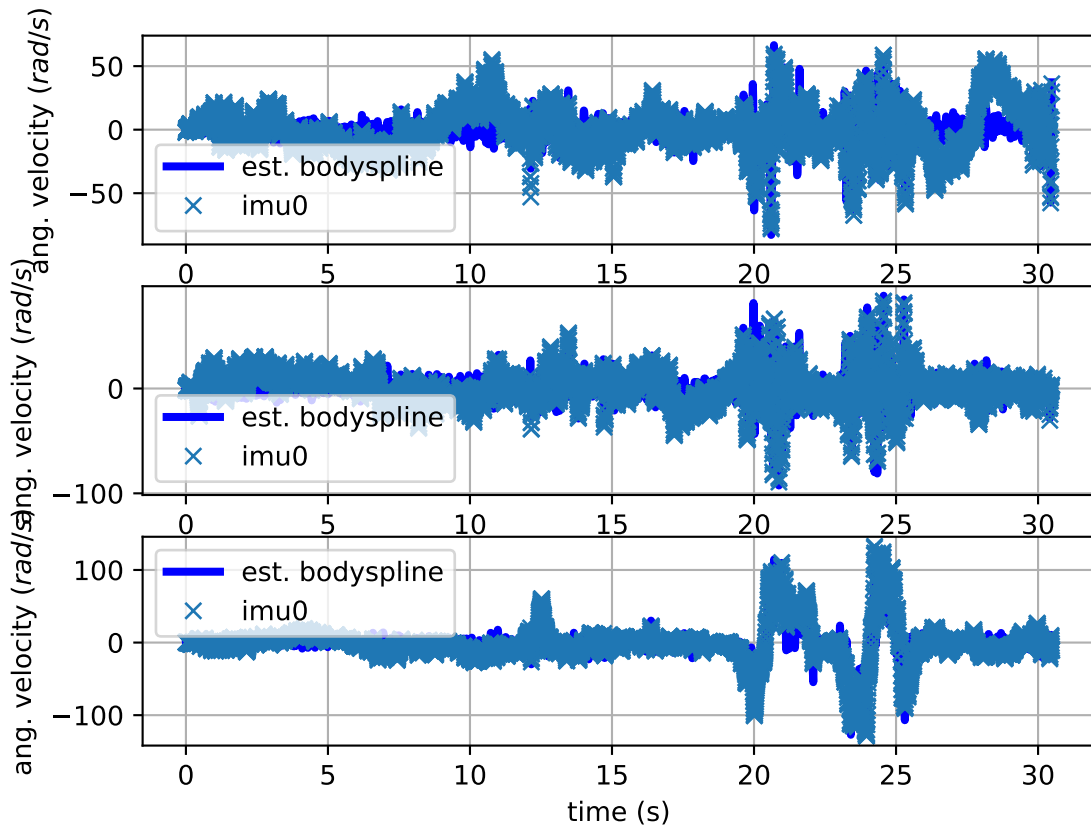Comparison of predicted and measured specific force (imu0 frame)
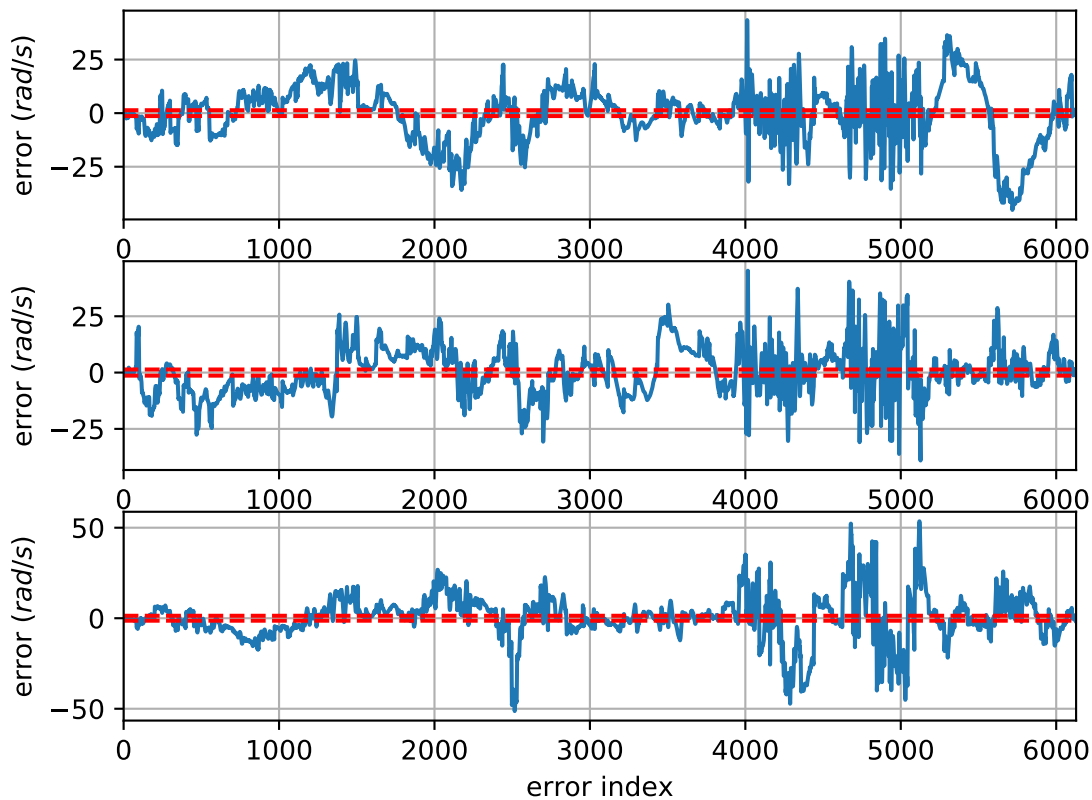
imu0: acceleration error
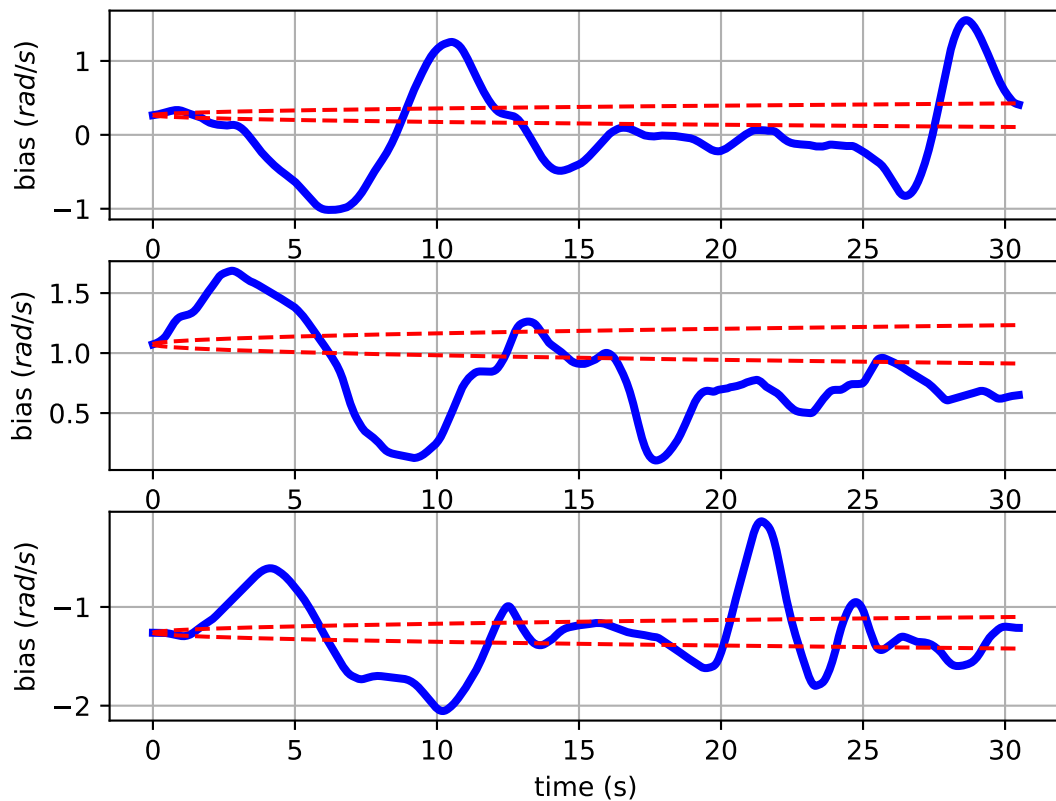
imu0: estimated accelerometer bias (imu frame)

Comparison of predicted and measured angular velocities (body frame)

imu0: angular velocities error

imu0: estimated gyro bias (imu frame)

cam0: reprojection errors