

Impact of accelerometer parametrizations on GRACE post-fit residuals

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Accelerometers onboard of satellites can be regarded as a key improvement in gravity field recovery. These instruments are located in the center of mass of the satellite and are precisely measuring non-gravitational forces acting on the satellite surfaces. Accelerometer measurements are distorted in their magnitude and amplitude, so an accelerometer calibration has to be carried out. Usually, in orbit determination and gravity field parameter estimation, a priori values are introduced and corresponding numeric corrections are estimated iteratively. Within the gravity field recovery community various accelerometer calibration parametrizations are applied. We have tested several parametrization scenarios within our in-house developed GRACE-SIGMA gravity field recovery software. In this contribution, we present the impact of these scenarios on post-fit KBRR residuals.