Table 1: Accelerations a of the LAGEOS satellite in $\mathrm{m}\cdot\mathrm{s}^{-2}$ and their fractional uncertainities σ_a/a. LAGEOS is probably the best studied object, for which a very tiny accelerations were detected. The observational limit of the laser-tracking technique is of the order $10^{-12}\,\mathrm{m}\cdot\mathrm{s}^{-2}$. The values below (sorted by their magnitude) are the instantaneous accelerations; some of them might accumulate on the long term (e.g., the Yarkovsky/YORP effect) but the rest produce quasi-periodic oscillations only (e.g, the tidal effects). The radiation effects acting on the LAGEOS have two important sources: the Sun and the Earth. Of course, different spacecrafts have different values of the accelerations: the objects at low Earth orbits typically have many orders of magnitude larger atmospheric drag than LAGEOS; the interplanetery spacecrafts equipped with radio thermoelectric generators, like Cassini, produce additional anisotropic infrared radiation and the corresponding acceleration is of the order $10^{-9}\,\mathrm{m}\cdot\mathrm{s}^{-2}$. Kinematic tides, the polar wobble and length of the day changes are not real accelerations acting on the spacecraft, they only affect the positions of the observing stations. If we do not take them into account directly, we can see these effects as apparent accelerations in the measured signal. Adapted from Bertotti, Farinella & Vokrouhlický (2003).

origin	a $(\mathrm{m}\cdot\mathrm{s}^{-2})$	σ_a/a
Earth's monopole	2.65	2×10^{-9}
Earth's oblatness	0.001	7×10^{-8}
geopotential $\ell, m = 2$	5.8×10^{-6}	3×10^{-5}
Moon	2.1×10^{-6}	10^{-7}
apparent accelerations due to polar wobble and δ(LOD)	upto 10^{-6}	
Sun	9.6×10^{-7}	4×10^{-10}
$\ell, m = 6$	8.8×10^{-8}	7×10^{-4}
dynamic solid tide	3.7×10^{-8}	0.002
kinematic solid tide	5.8×10^{-9}	0.03
dynamic oceanic tide	3.7×10^{-9}	0.1
solar radiation pressure	3.2×10^{-9}	0.02
kinematic ocean loading	10^{-9}	0.2
relativistic effects	9.5×10^{-10}	2×10^{-9}
Earth albedo	3.4×10^{-10}	1
Venus	1.3×10^{-10}	3×10^{-7}
Yarkovsky/YORP effect	5×10^{-11}	0.1
$\ell, m = 18$	6.9×10^{-12}	4×10^{-2}
reference system due to non-rigid Earth	3.5×10^{-12}	0.1
atmospheric drag	1×10^{-12}	0.3–1
Poynting-Robertson effect	10^{-13}	0.1
micrometeorite impacts	10^{-13}	
photoelectric effect due to UV $\odot$ radiation and $\oplus$ ionosphere	$< 10^{-13}$	