



Scientific objectives and performance analysis for a next generation gravity mission

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The current gravity missions GRACE and GOCE have provided a completely new type of information and new data products for use in solid Earth geophysics, mantle rheology, oceanography and sea level studies, hydrology, ice mass budget investigations, and geodesy. Several studies have already been conducted in order to sketch a concept for a future gravity mission based on low-low satellite-to-satellite tracking, realised with laser metrology. In this contribution we will review the scientific requirements for a future gravity mission and we will assess the performance of different mission concepts through full-scale simulations. The feasibility and limitations of a mission with launch around 2018-2020 will be discussed.