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# The GRACE Follow-On Laser Ranging Instrument - On track for launch in 2017

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The Gravity Recovery and Climate Experiment (GRACE) is a highly successful satellite mission whose main purpose is to record the temporal and spatial variations of the gravitational field of the Earth. Its successor mission, GRACE Follow-On, is scheduled for launch in the summer of 2017. It will be the first space mission to host a laser-based intersatellite ranging system as a technology demonstrator: the laser ranging interferometer (LRI). The ranging sensitivity of the LRI is expected to be $\leq$80 nm/sqrt(Hz) which would exceed the original GRACE ranging noise by at least one order of magnitude. Additionally, the LRI will provide new precise data streams for the line-of-sight alignment of the two spacecraft.
In January 2015 the LRI's critical design review, a major project milestone, was passed successfully. By the end of last year the production of flight hardware was completed. Currently, the LRI is being integrated into the spacecraft and important calibration measurements are performed.
In my talk I will give an overview of the unique design of the LRI and give an update on the current status of the instrument.