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## The first interspacecraft laser ranging interferometer on GRACE Follow-On and conclusions for future gravity missions

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The GRACE-FO twin satellites were launched in mid 2018 to continue the enormously useful Earth gravity field measurements from GRACE (2002-2017). The novel feature is the Laser Ranging Interferometer (LRI), which improves the noise of the inter-satellite separation measurement from  $2\ \mu\text{m}$  to  $200\ \text{pm}$  at high frequencies. The LRI was designed as an experimental demonstrator, but continues to work exceptionally well until today. Due to its success it will be the basis for future missions. In this presentation I will present the design and results of the LRI and give a brief outlook for the next generation of such missions.

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