

Contributions of SLR for the Next Decade
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Summary

SLR is one of the corner stone geodetic methods that define today's modern geodetic infrastructure. The directions of geodetic science for the next decade will be defined by scientific problems to be addressed and the technology developments that allow the types of measurements needed to address these problems. One geodetic system will not be able to address all problems but the careful combination of the techniques available (VLBI, GNSS, DORIS and terrestrial measurements) is more likely to lead to advances. This paper re-visits issues related to range biases and how these impact correlations between atmospheric delays and height estimates, and the relationship between microwave technique and SLR sensitivities. Defining a geodetic reference system that allows global sea level to be determined with high spatial and temporal resolution while maintaining decade long stability will be one of most stringent requirements for geodetic systems. We will carefully examine the scale difference between SLR and VLBI. Finally, we look at the challenges and opportunities for SLR in the coming decade.