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# **An Optimised Global SLR Network For Terrestrial Reference Frame Definition**

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## **Abstract**

*It is a continuing debate on the current station distribution and geometry of the global SLR network. In order to design the optimum network for high quality geodetic products, a simulation study was undertaken. Data for previously closed or additional new stations was simulated and augmented into the existing available data set and the relevant geodetic parameters estimated. Weekly estimates of the degree one coefficients of the Earth's gravity field (centre of mass) is used as a measure of the influence of the simulated data with respect to the original solutions -- as determined from the observed data set. The simulated data, observed data, and the computation standards are described. On the basis of these results, an optimised global network of SLR stations is presented.*